

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

February 23, 2023

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

Re: Case No. PU-22-002 (Therm Billing)
Monthly Report – December 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 January 2023.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our suppliers for the month of December 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 December 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
Jan-23

| Town | Heat Zone | Therm Factor |
|----------------------|-----------|--------------|
| MDU-303-ALEXANDER | 025 | 1.1400 |
| MDU-308-ARNEGARD | 025 | 1.1400 |
| MDU-314-APPLE VALLEY | 271 | 1.1395 |
| MDU-318-BEACH | 032 | 1.0461 |
| MDU-319-BELFIELD | 032 | 1.0538 |
| MDU-323-BERTHOLD | 262 | 1.1202 |
| MDU-327-BISMARCK | 028 | 1.0864 |
| MDU-330-BOWMAN | 034 | 0.9880 |
| MDU-337-BURLINGTON | 262 | 1.1443 |
| MDU-343-CARRINGTON | 273 | 1.1395 |
| MDU-344-CLEVELAND | 272 | 1.1315 |
| MDU-364-CAVALIER | 273 | 1.1636 |
| MDU-365-DAWSON | 271 | 1.1315 |
| MDU-368-DES LACS | 262 | 1.1282 |
| MDU-369-DICKINSON | 031 | 1.0606 |
| MDU-374-FT TOTTEN | 273 | 1.1475 |
| MDU-375-DEVILS LAKE | 273 | 1.1475 |
| MDU-379-BARLOW | 273 | 1.1395 |
| MDU-384-EPPING | 264 | 1.1277 |
| MDU-387-ELDRIDGE | 272 | 1.1395 |
| MDU-407-GLADSTONE | 031 | 1.0606 |
| MDU-411-GLEN ULLIN | 031 | 1.0682 |
| MDU-413-GOLVA | 032 | 1.0308 |
| MDU-416-GARRISON | 262 | 1.1282 |
| MDU-417-GRAFTON | 273 | 1.1716 |
| MDU-403-GWINNER | 601 | 1.1320 |
| MDU-429-HEBRON | 031 | 1.0682 |
| MDU-432-HETTINGER | 903 | 2.4049 |
| MDU-449-JAMESTOWN | 272 | 1.1475 |
| MDU-459-KILLDEER | 033 | 1.1107 |
| MDU-463-LANGDON | 273 | 1.1395 |
| MDU-469-LEFOR | 031 | 1.0606 |
| MDU-474-LIGNITE | 263 | 1.0759 |
| MDU-475-LINTON | 802 | 1.0488 |
| MDU-478-LINCOLN | 028 | 1.0864 |
| MDU-488-MCKENZIE | 271 | 1.1395 |
| MDU-494-MEDINA | 271 | 1.1315 |
| MDU-498-MANDAN | 028 | 1.0864 |
| MDU-500-MARMARTH | 034 | 0.9953 |
| MDU-505-MINOT | 262 | 1.1443 |
| MDU-510-MOTT | 031 | 1.0606 |
| MDU-512-MAX | 262 | 1.1202 |
| MDU-513-MILNOR | 601 | 1.1320 |
| MDU-522-NEW ENGLAND | 031 | 1.0529 |
| MDU-524-NEW SALEM | 028 | 1.0864 |
| MDU-532-NEW ROCKFORD | 273 | 1.1395 |
| MDU-539-PARK RIVER | 273 | 1.1636 |
| MDU-540-PALERMO | 262 | 1.1202 |
| MDU-558-RAY | 264 | 1.1277 |

| | | |
|------------------------|-----|--------|
| MDU-561-REGENT | 031 | 1.0529 |
| MDU-563-RHAME | 034 | 0.9807 |
| MDU-564-RICHARDTON | 031 | 1.0529 |
| MDU-568-ROSS | 261 | 1.1084 |
| MDU-572-RUTHVILLE | 262 | 1.1443 |
| MDU-574-SANBORN | 272 | 1.1475 |
| MDU-583-SENTINEL BUTTE | 032 | 1.0461 |
| MDU-588-SOUTH HEART | 031 | 1.0529 |
| MDU-717-SPIRITWOOD | 272 | 1.1475 |
| MDU-590-SPRINGBROOK | 264 | 1.1277 |
| MDU-591-STANLEY | 261 | 1.1164 |
| MDU-593-STEELE | 271 | 1.1315 |
| MDU-594-STERLING | 028 | 1.0864 |
| MDU-598-SHEYENNE | 273 | 1.1475 |
| MDU-605-SURREY | 262 | 1.1443 |
| MDU-610-TAPPEN | 271 | 1.1315 |
| MDU-611-TAYLOR | 031 | 1.0529 |
| MDU-616-TIOGA | 260 | 1.1027 |
| MDU-619-TURTLE LAKE | 262 | 1.1282 |
| MDU-620-TRENTON | 024 | 1.1396 |
| MDU-624-UNDERWOOD | 262 | 1.1282 |
| MDU-625-VALLEY CITY | 272 | 1.1555 |
| MDU-629-WALHALLA | 273 | 1.1636 |
| MDU-632-WATFORD CITY | 610 | 1.0408 |
| MDU-636-WHEELOCK | 264 | 1.1196 |
| MDU-637-WHITE EARTH | 261 | 1.1164 |
| MDU-642-WILLISTON | 024 | 1.1396 |
| MDU-646-WASHBURN | 262 | 1.1363 |
| MDU-647-WILTON | 262 | 1.1202 |
| MDU-664-RIVERDALE | 262 | 1.1282 |
| MDU-691-FAIRVIEW | 241 | 1.1511 |
| MDU-712-MINOT AFB | 262 | 1.1443 |
| MDU-718-FAIRMOUNT | 600 | 1.1297 |
| MDU-732-NEKOMA | 273 | 1.1395 |
| MDU-732-MSR SITE | 273 | 1.1395 |

Source Daily Summary

December 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 | 0.7335 | 1189.1 | 1210.2 | 1209.8 | 1.208 | 3.252 | 67.957 | 24.181 | 3.026 | 0.122 | 0.232 | 0.013 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1413.08 | |
| 2 | 0.7429 | 1200.8 | 1222.1 | 1221.7 | 1.296 | 3.290 | 66.684 | 24.814 | 3.484 | 0.141 | 0.266 | 0.013 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1417.86 | |
| 3 | 0.7443 | 1198.7 | 1220.0 | 1219.6 | 1.346 | 3.393 | 66.225 | 25.338 | 3.276 | 0.138 | 0.261 | 0.013 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1414.13 | |
| 4 | 0.7417 | 1196.1 | 1217.3 | 1216.9 | 1.362 | 3.362 | 66.763 | 24.805 | 3.309 | 0.130 | 0.246 | 0.013 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1413.46 | |
| 5 | 0.7419 | 1196.1 | 1217.3 | 1216.9 | 1.369 | 3.377 | 66.629 | 24.987 | 3.246 | 0.128 | 0.242 | 0.012 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1413.21 | |
| 6 | 0.7343 | 1191.0 | 1212.1 | 1211.8 | 1.155 | 3.298 | 67.684 | 24.453 | 3.071 | 0.112 | 0.209 | 0.010 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1414.51 | |
| 7 | 0.7319 | 1193.6 | 1214.7 | 1214.4 | 0.933 | 3.246 | 67.868 | 24.599 | 3.065 | 0.096 | 0.178 | 0.008 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1419.94 | |
| 8 | 0.7281 | 1185.0 | 1206.0 | 1205.7 | 0.996 | 3.318 | 68.531 | 23.998 | 2.836 | 0.104 | 0.197 | 0.011 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1413.38 | |
| 9 | 0.7383 | 1193.8 | 1214.9 | 1214.6 | 1.274 | 3.323 | 67.257 | 24.524 | 3.231 | 0.127 | 0.240 | 0.012 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1413.89 | |
| 10 | 0.7341 | 1187.4 | 1208.5 | 1208.1 | 1.245 | 3.357 | 67.869 | 24.107 | 3.039 | 0.125 | 0.236 | 0.012 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1410.45 | |
| 11 | 0.7237 | 1180.0 | 1200.9 | 1200.6 | 0.960 | 3.260 | 69.322 | 23.371 | 2.773 | 0.101 | 0.192 | 0.010 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1411.75 | |
| 12 | 0.7171 | 1177.3 | 1198.1 | 1197.8 | 0.781 | 3.089 | 70.229 | 23.055 | 2.561 | 0.090 | 0.174 | 0.010 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1414.81 | |
| 13 | 0.7183 | 1177.4 | 1198.3 | 1197.9 | 0.778 | 3.193 | 69.979 | 23.163 | 2.631 | 0.084 | 0.156 | 0.008 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1413.86 | |
| 14 | 0.7226 | 1182.9 | 1203.9 | 1203.5 | 0.831 | 3.185 | 69.425 | 23.418 | 2.863 | 0.091 | 0.170 | 0.009 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1416.17 | |
| 15 | 0.7313 | 1190.3 | 1211.4 | 1211.0 | 1.029 | 3.244 | 68.094 | 24.276 | 3.050 | 0.103 | 0.189 | 0.009 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1416.62 | |
| 16 | 0.7346 | 1189.2 | 1210.3 | 1209.9 | 1.137 | 3.368 | 67.441 | 24.811 | 2.895 | 0.116 | 0.214 | 0.010 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1412.27 | |
| 17 | 0.7398 | 1192.5 | 1213.6 | 1213.3 | 1.352 | 3.424 | 66.868 | 24.894 | 3.038 | 0.138 | 0.262 | 0.013 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1410.98 | |
| 18 | 0.7104 | 1179.3 | 1200.1 | 1199.8 | 0.333 | 3.015 | 70.694 | 23.416 | 2.410 | 0.047 | 0.079 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1424.04 | |
| 19 | 0.7087 | 1174.9 | 1195.7 | 1195.4 | 0.390 | 3.038 | 70.898 | 23.331 | 2.193 | 0.054 | 0.090 | 0.003 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1420.42 | |
| 20 | 0.7007 | 1168.1 | 1188.8 | 1188.4 | 0.191 | 3.009 | 71.961 | 22.828 | 1.905 | 0.040 | 0.062 | 0.002 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1420.19 | |
| 21 | 0.7001 | 1170.6 | 1191.4 | 1191.0 | 0.088 | 2.946 | 72.278 | 22.390 | 2.200 | 0.041 | 0.056 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1423.90 | |
| 22 | 0.6978 | 1170.0 | 1190.7 | 1190.4 | 0.027 | 2.869 | 72.390 | 22.674 | 1.979 | 0.028 | 0.034 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1425.40 | |
| 23 | 0.6920 | 1161.0 | 1181.5 | 1181.2 | 0.068 | 2.723 | 73.686 | 21.446 | 2.004 | 0.032 | 0.041 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1420.35 | |
| 24 | 0.6962 | 1167.9 | 1188.6 | 1188.2 | 0.032 | 2.838 | 72.828 | 22.177 | 2.050 | 0.033 | 0.042 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1424.44 | |
| 25 | 0.7016 | 1176.1 | 1196.9 | 1196.6 | 0.012 | 2.873 | 71.993 | 22.722 | 2.305 | 0.040 | 0.053 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1428.92 | |
| 26 | 0.7023 | 1177.0 | 1197.8 | 1197.5 | 0.012 | 2.881 | 71.859 | 22.847 | 2.304 | 0.041 | 0.056 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1429.35 | |
| 27 | 0.6947 | 1164.1 | 1184.8 | 1184.4 | 0.017 | 2.948 | 72.626 | 22.739 | 1.620 | 0.022 | 0.028 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.44 | |
| 28 | 0.7367 | 1197.3 | 1218.5 | 1218.2 | 1.028 | 3.322 | 68.265 | 22.805 | 4.224 | 0.123 | 0.215 | 0.010 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1419.78 | |
| 29 | 0.7442 | 1201.5 | 1222.8 | 1222.4 | 1.330 | 3.317 | 66.502 | 24.895 | 3.517 | 0.150 | 0.268 | 0.011 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1417.41 | |
| 30 | 0.7452 | 1203.5 | 1224.8 | 1224.4 | 1.322 | 3.304 | 66.220 | 25.303 | 3.376 | 0.162 | 0.291 | 0.012 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1418.79 | |
| 31 | 0.7325 | 1192.3 | 1213.4 | 1213.0 | 1.018 | 3.257 | 68.156 | 23.976 | 3.207 | 0.131 | 0.237 | 0.010 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1417.86 | |
| Avg | 0.7233 | 1185.0 | 1205.7 | 1205.3 | 0.804 | 3.172 | 69.200 | 23.753 | 2.796 | 0.093 | 0.168 | 0.008 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1417.83 | |

Source Daily Summary

December 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 | 0.7103 | 1165.1 | 1185.7 | 1185.4 | 1.069 | 2.749 | 72.010 | 21.373 | 2.439 | 0.099 | 0.221 | 0.018 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1406.86 | |
| 2 | 0.7106 | 1172.3 | 1193.1 | 1192.7 | 0.557 | 3.117 | 71.370 | 22.094 | 2.568 | 0.086 | 0.176 | 0.015 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1415.30 | |
| 3 | 0.7082 | 1175.7 | 1196.6 | 1196.2 | 0.213 | 3.206 | 71.228 | 22.628 | 2.549 | 0.056 | 0.104 | 0.008 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.85 | |
| 4 | 0.7085 | 1174.3 | 1195.1 | 1194.7 | 0.273 | 3.230 | 71.237 | 22.581 | 2.454 | 0.067 | 0.133 | 0.012 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1419.81 | |
| 5 | 0.7065 | 1171.9 | 1192.6 | 1192.2 | 0.255 | 3.221 | 71.530 | 22.397 | 2.384 | 0.065 | 0.126 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1418.83 | |
| 6 | 0.7080 | 1173.2 | 1193.9 | 1193.6 | 0.311 | 3.198 | 71.330 | 22.519 | 2.427 | 0.065 | 0.128 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1418.90 | |
| 7 | 0.7189 | 1176.0 | 1196.9 | 1196.5 | 0.905 | 3.133 | 70.469 | 22.295 | 2.820 | 0.104 | 0.232 | 0.019 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1411.63 | |
| 8 | 0.7139 | 1176.6 | 1197.5 | 1197.2 | 1.054 | 2.394 | 72.071 | 21.088 | 2.910 | 0.135 | 0.296 | 0.024 | 0.028 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1417.29 | |
| 9 | 0.7160 | 1174.6 | 1195.4 | 1195.1 | 1.065 | 2.706 | 71.316 | 21.748 | 2.734 | 0.118 | 0.265 | 0.022 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1412.71 | |
| 10 | 0.7139 | 1170.1 | 1190.8 | 1190.5 | 1.072 | 2.780 | 71.419 | 21.807 | 2.542 | 0.104 | 0.234 | 0.019 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1409.31 | |
| 11 | 0.7131 | 1174.1 | 1194.8 | 1194.6 | 1.057 | 2.475 | 72.000 | 21.242 | 2.786 | 0.123 | 0.269 | 0.022 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1414.96 | |
| 12 | 0.7117 | 1172.3 | 1193.0 | 1192.7 | 1.049 | 2.466 | 72.060 | 21.382 | 2.633 | 0.116 | 0.251 | 0.020 | 0.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1414.20 | |
| 13 | 0.7142 | 1175.8 | 1196.7 | 1196.3 | 1.044 | 2.495 | 71.759 | 21.462 | 2.800 | 0.124 | 0.268 | 0.022 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1415.98 | |
| 14 | 0.7155 | 1176.8 | 1197.6 | 1197.3 | 1.048 | 2.551 | 71.559 | 21.546 | 2.848 | 0.125 | 0.274 | 0.022 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1415.84 | |
| 15 | 0.7199 | 1176.8 | 1197.7 | 1197.3 | 1.069 | 2.931 | 70.632 | 22.063 | 2.859 | 0.122 | 0.274 | 0.022 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1411.56 | |
| 16 | 0.7083 | 1171.7 | 1192.5 | 1192.1 | 0.371 | 3.222 | 71.452 | 22.253 | 2.433 | 0.079 | 0.160 | 0.014 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1416.93 | |
| 17 | 0.6941 | 1158.7 | 1179.3 | 1179.0 | 0.109 | 3.077 | 72.899 | 22.241 | 1.572 | 0.034 | 0.058 | 0.004 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1415.50 | |
| 18 | 0.7020 | 1174.4 | 1195.2 | 1194.9 | 0.067 | 2.932 | 71.791 | 22.968 | 2.167 | 0.030 | 0.042 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1426.44 | |
| 19 | 0.7007 | 1169.5 | 1190.2 | 1190.0 | 0.129 | 3.015 | 71.903 | 22.946 | 1.903 | 0.037 | 0.060 | 0.004 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1421.85 | |
| 20 | 0.7037 | 1169.2 | 1189.9 | 1189.6 | 0.231 | 3.151 | 71.795 | 22.500 | 2.133 | 0.062 | 0.111 | 0.008 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1418.52 | |
| 21 | 0.7049 | 1172.2 | 1193.0 | 1192.6 | 0.201 | 3.131 | 71.798 | 22.270 | 2.395 | 0.070 | 0.120 | 0.008 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1420.87 | |
| 22 | 0.6992 | 1167.4 | 1188.0 | 1187.7 | 0.148 | 2.971 | 72.583 | 21.984 | 2.167 | 0.053 | 0.084 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1420.78 | |
| 23 | 0.6954 | 1162.2 | 1182.8 | 1182.5 | 0.191 | 2.859 | 73.512 | 21.054 | 2.215 | 0.060 | 0.098 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1418.38 | |
| 24 | 0.7015 | 1167.4 | 1188.1 | 1187.8 | 0.274 | 2.987 | 72.473 | 21.787 | 2.279 | 0.067 | 0.118 | 0.008 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1418.57 | |
| 25 | 0.7066 | 1179.0 | 1199.9 | 1199.6 | 0.132 | 2.975 | 71.380 | 22.892 | 2.471 | 0.057 | 0.086 | 0.004 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1427.43 | |
| 26 | 0.7098 | 1170.5 | 1191.2 | 1190.9 | 0.996 | 2.481 | 71.939 | 21.911 | 2.326 | 0.099 | 0.212 | 0.016 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1413.92 | |
| 27 | 0.7051 | 1165.3 | 1185.9 | 1185.7 | 1.012 | 2.329 | 72.795 | 21.333 | 2.185 | 0.098 | 0.211 | 0.016 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1412.36 | |
| 28 | 0.7078 | 1168.7 | 1189.4 | 1189.2 | 1.020 | 2.360 | 72.548 | 21.301 | 2.385 | 0.108 | 0.235 | 0.020 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1413.81 | |
| 29 | 0.7151 | 1180.2 | 1201.1 | 1200.9 | 1.012 | 2.360 | 71.755 | 21.476 | 2.925 | 0.134 | 0.289 | 0.023 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1420.33 | |
| 30 | 0.7186 | 1181.7 | 1202.6 | 1202.4 | 1.012 | 2.597 | 70.818 | 22.327 | 2.814 | 0.120 | 0.266 | 0.021 | 0.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1418.70 | |
| 31 | 0.7197 | 1181.6 | 1202.5 | 1202.2 | 1.014 | 2.710 | 70.430 | 22.705 | 2.737 | 0.112 | 0.250 | 0.019 | 0.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1417.43 | |
| Avg | 0.7091 | 1172.0 | 1193.2 | 1192.9 | 0.644 | 2.833 | 71.737 | 22.006 | 2.479 | 0.088 | 0.182 | 0.014 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1416.99 | |

Gas Composition and Properties

Effective December 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 | 0.6725 | | 1.4282 | Pressure Base | 14.730 | |
| Nitrogen, N2 | 3.0998 | | 4.1904 | Temperature Base | 60.00 | |
| Methane, C1 | 70.2788 | | 54.4075 | HCDP @ Sample Pressure | -24.449 | |
| Ethane, C2 | 22.8299 | 6.1103 | 33.1271 | Cricondentherm | -3.014 | |
| Propane, C3 | 2.8268 | 0.7794 | 6.0152 | HV, Dry @ Base P, T | 1201.37 | |
| iso-Butane, iC4 | 0.1008 | 0.0330 | 0.2827 | HV, Sat @ Base P, T | 1180.46 | |
| n-Butane, nC4 | 0.1735 | 0.0547 | 0.4866 | HV, Sat @ Sample P, T | 1201.37 | |
| iso-Pentane, iC5 | 0.0100 | 0.0037 | 0.0348 | Relative Density | 0.7176 | |
| n-Pentane, nC5 | 0.0079 | 0.0029 | 0.0275 | | | |
| Neo-Pentane, neo | | | | | | |
| Hexanes Plus, C6+ | | | | | | |
| Argon, Ar | | | | | | |
| Carbon Monoxide, CO | | | | | | |
| Hydrogen, H2 | | | | | | |
| Oxygen, O2 | | | | | | |
| Helium, He | | | | | | |
| Water, H2O | | | | | | |
| Hydrogen Sulfide, H2S | | | | | | |
| Totals | 100.0000 | 6.9840 | 100.0000 | | | |

C6+: 100

Sample

Date: 12/01/2022 Type:
Tech: Tipton, Joshua
Pressure: 370 psi Temp.: °F
Gauge: Gauge H2O:
Atm. Pressure: H2S:

Remarks:

Analysis

Date: 12/01/2022 Instrument:
Tech: Tipton, Joshua Cylinder: 457

Remarks:

Source Daily Summary

December 2022

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

| | | | |
|--------------------------|--------|-----------------------|---|
| 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 | 0.6967 | 1150.7 | 1171.1 | 1170.9 | 1.013 | 2.432 | 73.621 | 21.116 | 1.617 | 0.057 | 0.125 | 0.009 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1403.09 | -16.51 |
| 2 | 0.6997 | 1157.6 | 1178.1 | 1177.9 | 1.007 | 2.297 | 73.581 | 20.825 | 2.011 | 0.080 | 0.170 | 0.013 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1408.49 | -12.19 |
| 3 | 0.6983 | 1155.3 | 1175.7 | 1175.5 | 1.019 | 2.294 | 73.959 | 20.361 | 2.081 | 0.082 | 0.175 | 0.014 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1406.97 | -12.36 |
| 4 | 0.7030 | 1159.0 | 1179.6 | 1179.3 | 1.019 | 2.504 | 73.134 | 20.831 | 2.215 | 0.084 | 0.183 | 0.014 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1406.85 | -10.17 |
| 5 | 0.7032 | 1160.1 | 1180.7 | 1180.4 | 1.012 | 2.472 | 72.901 | 21.276 | 2.052 | 0.081 | 0.176 | 0.013 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1407.94 | -10.75 |
| 6 | 0.7014 | 1158.6 | 1179.1 | 1178.9 | 1.009 | 2.401 | 73.071 | 21.353 | 1.906 | 0.074 | 0.160 | 0.012 | 0.014 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1407.90 | -12.35 |
| 7 | 0.6991 | 1156.6 | 1177.0 | 1176.8 | 1.004 | 2.319 | 73.337 | 21.355 | 1.749 | 0.068 | 0.145 | 0.011 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1407.72 | -14.11 |
| 8 | 0.6955 | 1149.2 | 1169.6 | 1169.4 | 0.998 | 2.437 | 73.453 | 21.616 | 1.352 | 0.041 | 0.090 | 0.006 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1402.45 | -18.97 |
| 9 | 0.7000 | 1157.7 | 1178.2 | 1177.9 | 1.014 | 2.315 | 73.297 | 21.278 | 1.848 | 0.071 | 0.153 | 0.011 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1408.23 | -13.19 |
| 10 | 0.6984 | 1153.4 | 1173.8 | 1173.6 | 1.000 | 2.457 | 73.426 | 21.142 | 1.744 | 0.066 | 0.143 | 0.010 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1404.54 | -14.78 |
| 11 | 0.6949 | 1147.4 | 1167.7 | 1167.5 | 1.009 | 2.484 | 73.705 | 21.210 | 1.401 | 0.054 | 0.118 | 0.008 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1400.78 | -18.32 |
| 12 | 0.6948 | 1146.7 | 1167.1 | 1166.8 | 1.003 | 2.523 | 73.638 | 21.310 | 1.346 | 0.051 | 0.112 | 0.008 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1400.12 | -18.83 |
| 13 | 0.6971 | 1150.6 | 1171.0 | 1170.8 | 0.998 | 2.505 | 73.408 | 21.371 | 1.501 | 0.062 | 0.134 | 0.010 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1402.58 | -16.59 |
| 14 | 0.6991 | 1154.7 | 1175.2 | 1175.0 | 0.994 | 2.448 | 73.282 | 21.340 | 1.674 | 0.073 | 0.161 | 0.013 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1405.48 | -14.12 |
| 15 | 0.6977 | 1152.9 | 1173.3 | 1173.1 | 0.992 | 2.426 | 73.739 | 20.773 | 1.788 | 0.079 | 0.173 | 0.014 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1404.68 | -13.91 |
| 16 | 0.7016 | 1160.3 | 1180.9 | 1180.7 | 0.993 | 2.335 | 73.195 | 21.208 | 1.960 | 0.089 | 0.190 | 0.014 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1409.84 | -11.10 |
| 17 | 0.7040 | 1164.8 | 1185.4 | 1185.2 | 1.003 | 2.269 | 73.014 | 21.200 | 2.167 | 0.099 | 0.213 | 0.016 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1412.87 | -8.68 |
| 18 | 0.7031 | 1162.8 | 1183.4 | 1183.2 | 1.005 | 2.305 | 73.077 | 21.197 | 2.081 | 0.094 | 0.206 | 0.016 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1411.35 | -9.54 |
| 19 | 0.7041 | 1164.5 | 1185.1 | 1184.8 | 0.999 | 2.307 | 72.899 | 21.346 | 2.117 | 0.094 | 0.203 | 0.016 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1412.33 | -9.08 |
| 20 | 0.7038 | 1164.3 | 1184.9 | 1184.7 | 0.997 | 2.297 | 72.920 | 21.362 | 2.095 | 0.093 | 0.201 | 0.016 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1412.37 | -9.32 |
| 21 | 0.7047 | 1166.1 | 1186.7 | 1186.5 | 0.990 | 2.280 | 72.860 | 21.341 | 2.184 | 0.098 | 0.211 | 0.016 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1413.69 | -8.33 |
| 22 | 0.6994 | 1155.7 | 1176.1 | 1175.9 | 1.024 | 2.374 | 73.270 | 21.361 | 1.729 | 0.070 | 0.149 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1406.30 | -14.13 |
| 23 | 0.6975 | 1153.5 | 1174.0 | 1173.8 | 1.007 | 2.350 | 73.524 | 21.251 | 1.645 | 0.065 | 0.138 | 0.010 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1405.63 | -15.58 |
| 24 | 0.7019 | 1162.2 | 1182.7 | 1182.5 | 1.000 | 2.241 | 73.350 | 20.958 | 2.125 | 0.093 | 0.200 | 0.016 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1411.73 | -9.96 |
| 25 | 0.7019 | 1160.2 | 1180.8 | 1180.5 | 1.009 | 2.351 | 73.082 | 21.320 | 1.946 | 0.083 | 0.179 | 0.014 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1409.33 | -11.35 |
| 26 | 0.6923 | 1142.8 | 1163.1 | 1162.8 | 0.963 | 2.582 | 74.263 | 20.555 | 1.428 | 0.059 | 0.129 | 0.010 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1397.76 | -19.36 |
| 27 | 0.6912 | 1141.1 | 1161.3 | 1161.1 | 1.014 | 2.511 | 74.058 | 21.188 | 1.087 | 0.040 | 0.090 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1396.81 | -22.16 |
| 28 | 0.6906 | 1140.5 | 1160.7 | 1160.5 | 1.010 | 2.490 | 74.175 | 21.117 | 1.066 | 0.040 | 0.088 | 0.006 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1396.75 | -22.49 |
| 29 | 0.6925 | 1145.3 | 1165.6 | 1165.4 | 1.006 | 2.378 | 74.092 | 21.067 | 1.278 | 0.052 | 0.110 | 0.008 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1400.73 | -19.94 |
| 30 | 0.6973 | 1154.7 | 1175.2 | 1174.9 | 1.003 | 2.259 | 73.728 | 21.045 | 1.702 | 0.075 | 0.161 | 0.012 | 0.014 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1407.32 | -14.54 |
| 31 | 0.6987 | 1156.9 | 1177.3 | 1177.1 | 1.003 | 2.259 | 73.673 | 20.908 | 1.862 | 0.084 | 0.181 | 0.014 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1408.52 | -12.78 |
| Avg | 0.6988 | 1155.0 | 1175.5 | 1175.3 | 1.004 | 2.384 | 73.443 | 21.148 | 1.766 | 0.073 | 0.157 | 0.012 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1406.17 | -14.05 |

*** End of Report ***

Source Daily Summary

December 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 | 0.7464 | 1169.4 | 1190.1 | 1189.9 | 0.905 | 6.109 | 66.994 | 20.380 | 5.030 | 0.160 | 0.376 | 0.022 | 0.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.60 | |
| 2 | 0.7159 | 1146.0 | 1166.3 | 1166.2 | 0.885 | 4.709 | 71.541 | 18.954 | 3.487 | 0.118 | 0.272 | 0.017 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.82 | |
| 3 | 0.7023 | 1150.8 | 1171.1 | 1170.9 | 1.018 | 2.947 | 73.183 | 20.385 | 2.148 | 0.089 | 0.198 | 0.015 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1397.46 | |
| 4 | 0.7489 | 1167.4 | 1188.1 | 1187.9 | 0.891 | 6.481 | 66.761 | 19.929 | 5.339 | 0.168 | 0.387 | 0.022 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.89 | |
| 5 | 0.7504 | 1174.2 | 1195.0 | 1194.8 | 0.902 | 6.194 | 66.611 | 20.286 | 5.375 | 0.176 | 0.408 | 0.024 | 0.025 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.57 | |
| 6 | 0.7351 | 1169.3 | 1190.0 | 1189.9 | 0.955 | 4.988 | 68.549 | 20.798 | 4.188 | 0.144 | 0.334 | 0.021 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1388.23 | |
| 7 | 0.7067 | 1159.1 | 1179.7 | 1179.5 | 1.070 | 2.768 | 72.222 | 21.610 | 2.023 | 0.085 | 0.191 | 0.014 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1403.32 | |
| 8 | 0.7060 | 1158.1 | 1178.6 | 1178.4 | 1.060 | 2.786 | 72.145 | 21.843 | 1.890 | 0.076 | 0.172 | 0.013 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1402.71 | |
| 9 | 0.7142 | 1158.1 | 1178.6 | 1178.4 | 1.013 | 3.630 | 71.082 | 21.357 | 2.594 | 0.091 | 0.205 | 0.013 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1394.69 | |
| 10 | 0.7490 | 1170.3 | 1191.0 | 1190.8 | 0.894 | 6.319 | 66.724 | 20.162 | 5.294 | 0.170 | 0.393 | 0.022 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.19 | |
| 11 | 0.7346 | 1164.9 | 1185.5 | 1185.3 | 0.947 | 5.218 | 68.552 | 20.623 | 4.154 | 0.141 | 0.324 | 0.019 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.43 | |
| 12 | 0.7383 | 1163.6 | 1184.2 | 1184.0 | 0.995 | 5.574 | 67.784 | 20.996 | 4.139 | 0.143 | 0.327 | 0.020 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.22 | |
| 13 | 0.7427 | 1168.5 | 1189.2 | 1189.0 | 0.915 | 5.811 | 67.560 | 20.337 | 4.794 | 0.163 | 0.373 | 0.022 | 0.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.93 | |
| 14 | 0.7499 | 1172.7 | 1193.5 | 1193.3 | 0.898 | 6.251 | 66.636 | 20.270 | 5.302 | 0.178 | 0.414 | 0.024 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.21 | |
| 15 | 0.7336 | 1167.5 | 1188.2 | 1188.0 | 0.942 | 4.973 | 68.903 | 20.451 | 4.181 | 0.151 | 0.351 | 0.023 | 0.025 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1387.55 | |
| 16 | 0.7004 | 1146.9 | 1167.2 | 1167.0 | 1.007 | 3.022 | 73.210 | 20.606 | 1.861 | 0.082 | 0.182 | 0.014 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1394.70 | |
| 17 | 0.7032 | 1156.8 | 1177.3 | 1177.1 | 1.033 | 2.640 | 73.118 | 20.716 | 2.147 | 0.097 | 0.212 | 0.016 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1403.93 | |
| 18 | 0.7054 | 1159.0 | 1179.5 | 1179.3 | 1.044 | 2.699 | 72.626 | 21.172 | 2.122 | 0.094 | 0.209 | 0.015 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1404.35 | |
| 19 | 0.7065 | 1160.7 | 1181.2 | 1181.0 | 1.035 | 2.710 | 72.507 | 21.196 | 2.202 | 0.097 | 0.217 | 0.017 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1405.33 | |
| 20 | 0.7067 | 1161.3 | 1181.9 | 1181.7 | 1.043 | 2.676 | 72.450 | 21.304 | 2.179 | 0.096 | 0.214 | 0.017 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1405.94 | |
| 21 | 0.7068 | 1161.5 | 1182.1 | 1181.9 | 1.031 | 2.692 | 72.461 | 21.243 | 2.222 | 0.098 | 0.216 | 0.017 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1406.05 | |
| 22 | 0.7028 | 1154.7 | 1175.1 | 1175.0 | 1.027 | 2.746 | 72.984 | 20.892 | 2.040 | 0.088 | 0.192 | 0.014 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1401.69 | |
| 23 | 0.6947 | 1144.0 | 1164.3 | 1164.1 | 1.022 | 2.643 | 74.009 | 20.519 | 1.582 | 0.064 | 0.139 | 0.010 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1396.84 | |
| 24 | 0.6934 | 1143.6 | 1163.8 | 1163.7 | 0.931 | 2.678 | 74.812 | 19.246 | 2.026 | 0.087 | 0.190 | 0.014 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1397.54 | |
| 25 | 0.7041 | 1157.1 | 1177.6 | 1177.4 | 1.026 | 2.717 | 72.865 | 20.935 | 2.126 | 0.093 | 0.205 | 0.016 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1403.40 | |
| 26 | 0.6955 | 1136.9 | 1157.0 | 1156.8 | 0.960 | 3.243 | 74.213 | 19.358 | 1.923 | 0.083 | 0.188 | 0.014 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1387.27 | |
| 27 | 0.6889 | 1124.2 | 1144.1 | 1143.9 | 0.944 | 3.417 | 75.026 | 18.811 | 1.563 | 0.064 | 0.151 | 0.011 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.49 | |
| 28 | 0.6800 | 1107.4 | 1127.0 | 1126.8 | 0.864 | 3.727 | 76.773 | 16.791 | 1.592 | 0.069 | 0.158 | 0.012 | 0.014 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1366.59 | |
| 29 | 0.6942 | 1134.8 | 1154.9 | 1154.8 | 0.989 | 3.202 | 74.007 | 20.008 | 1.556 | 0.065 | 0.149 | 0.011 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1386.19 | |
| 30 | 0.7008 | 1148.4 | 1168.7 | 1168.5 | 1.041 | 2.925 | 73.020 | 20.976 | 1.765 | 0.076 | 0.170 | 0.012 | 0.014 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1396.07 | |
| 31 | 0.7035 | 1154.7 | 1175.1 | 1174.9 | 1.035 | 2.791 | 72.804 | 21.079 | 1.977 | 0.088 | 0.195 | 0.015 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1401.08 | |
| Avg | 0.7149 | 1155.0 | 1175.7 | 1175.5 | 0.978 | 3.912 | 71.359 | 20.427 | 2.930 | 0.110 | 0.249 | 0.017 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1390.78 | |

Source Daily Summary

December 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 | 0.7539 | 1172.3 | 1193.0 | 1192.7 | 0.895 | 6.652 | 66.175 | 19.952 | 5.653 | 0.188 | 0.433 | 0.025 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.05 | |
| 2 | 0.7497 | 1163.4 | 1184.0 | 1183.7 | 0.892 | 6.807 | 66.621 | 19.658 | 5.418 | 0.172 | 0.388 | 0.021 | 0.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1367.42 | |
| 3 | 0.7534 | 1171.9 | 1192.6 | 1192.3 | 0.892 | 6.640 | 66.199 | 19.976 | 5.643 | 0.184 | 0.420 | 0.023 | 0.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.98 | |
| 4 | 0.7561 | 1177.4 | 1198.2 | 1197.9 | 0.887 | 6.558 | 65.914 | 20.169 | 5.772 | 0.195 | 0.452 | 0.026 | 0.028 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.02 | |
| 5 | 0.7531 | 1171.8 | 1192.5 | 1192.2 | 0.885 | 6.621 | 66.252 | 19.982 | 5.602 | 0.185 | 0.423 | 0.024 | 0.025 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.20 | |
| 6 | 0.7488 | 1162.6 | 1183.2 | 1182.9 | 0.890 | 6.770 | 66.729 | 19.663 | 5.352 | 0.170 | 0.383 | 0.021 | 0.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1367.37 | |
| 7 | 0.7495 | 1164.6 | 1185.2 | 1185.0 | 0.890 | 6.721 | 66.637 | 19.750 | 5.399 | 0.172 | 0.388 | 0.021 | 0.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1369.01 | |
| 8 | 0.7534 | 1171.6 | 1192.3 | 1192.1 | 0.892 | 6.653 | 66.245 | 19.919 | 5.614 | 0.191 | 0.437 | 0.025 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.69 | |
| 9 | 0.7519 | 1169.3 | 1190.0 | 1189.8 | 0.886 | 6.663 | 66.399 | 19.866 | 5.531 | 0.185 | 0.421 | 0.024 | 0.025 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.35 | |
| 10 | 0.7537 | 1172.3 | 1193.1 | 1192.8 | 0.886 | 6.649 | 66.217 | 19.919 | 5.639 | 0.193 | 0.444 | 0.026 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.25 | |
| 11 | 0.7541 | 1172.9 | 1193.6 | 1193.4 | 0.881 | 6.662 | 66.164 | 19.932 | 5.671 | 0.194 | 0.444 | 0.025 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.50 | |
| 12 | 0.7550 | 1174.6 | 1195.4 | 1195.1 | 0.880 | 6.642 | 66.061 | 20.000 | 5.708 | 0.197 | 0.456 | 0.027 | 0.028 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.67 | |
| 13 | 0.7548 | 1174.1 | 1194.8 | 1194.6 | 0.878 | 6.651 | 66.112 | 19.930 | 5.729 | 0.195 | 0.450 | 0.026 | 0.028 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.33 | |
| 14 | 0.7556 | 1176.8 | 1197.6 | 1197.4 | 0.880 | 6.565 | 65.986 | 20.106 | 5.761 | 0.196 | 0.451 | 0.026 | 0.028 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.70 | |
| 15 | 0.7523 | 1173.2 | 1193.9 | 1193.7 | 0.878 | 6.474 | 66.505 | 19.808 | 5.673 | 0.186 | 0.426 | 0.024 | 0.025 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.54 | |
| 16 | 0.7538 | 1182.1 | 1203.0 | 1202.7 | 0.890 | 6.053 | 66.378 | 20.302 | 5.664 | 0.198 | 0.460 | 0.027 | 0.028 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1385.57 | |
| 17 | 0.7430 | 1181.0 | 1201.9 | 1201.7 | 0.926 | 5.052 | 67.871 | 20.644 | 4.852 | 0.178 | 0.417 | 0.028 | 0.032 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1394.38 | |
| 18 | 0.7415 | 1162.1 | 1182.7 | 1182.4 | 0.914 | 6.088 | 67.904 | 19.527 | 5.012 | 0.167 | 0.351 | 0.018 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.41 | |
| 19 | 0.7482 | 1167.4 | 1188.1 | 1187.8 | 0.893 | 6.417 | 67.066 | 19.547 | 5.449 | 0.187 | 0.398 | 0.021 | 0.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.60 | |
| 20 | 0.7418 | 1157.0 | 1177.5 | 1177.3 | 0.895 | 6.449 | 67.844 | 19.163 | 5.108 | 0.163 | 0.343 | 0.017 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1367.20 | |
| 21 | 0.7396 | 1159.2 | 1179.7 | 1179.4 | 0.908 | 6.095 | 68.118 | 19.442 | 4.917 | 0.157 | 0.329 | 0.017 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1371.73 | |
| 22 | 0.7385 | 1160.2 | 1180.8 | 1180.5 | 0.922 | 5.907 | 68.309 | 19.493 | 4.859 | 0.153 | 0.324 | 0.017 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.98 | |
| 23 | 0.7364 | 1158.4 | 1178.9 | 1178.6 | 0.933 | 5.801 | 68.567 | 19.507 | 4.712 | 0.145 | 0.306 | 0.015 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.81 | |
| 24 | 0.7378 | 1161.6 | 1182.2 | 1181.9 | 0.921 | 5.754 | 68.431 | 19.587 | 4.786 | 0.156 | 0.332 | 0.016 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.33 | |
| 25 | 0.7412 | 1163.0 | 1183.6 | 1183.4 | 0.886 | 6.044 | 68.062 | 19.329 | 5.116 | 0.168 | 0.358 | 0.018 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.77 | |
| 26 | 0.7442 | 1167.0 | 1187.7 | 1187.5 | 0.911 | 6.035 | 67.604 | 19.673 | 5.200 | 0.172 | 0.366 | 0.019 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.82 | |
| 27 | 0.7474 | 1168.7 | 1189.4 | 1189.1 | 0.891 | 6.268 | 67.181 | 19.620 | 5.442 | 0.176 | 0.382 | 0.020 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.76 | |
| 28 | 0.7516 | 1169.5 | 1190.3 | 1190.0 | 0.882 | 6.619 | 66.565 | 19.617 | 5.692 | 0.183 | 0.400 | 0.021 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.96 | |
| 29 | 0.7503 | 1166.5 | 1187.2 | 1187.0 | 0.887 | 6.681 | 66.655 | 19.578 | 5.612 | 0.173 | 0.377 | 0.019 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1370.56 | |
| 30 | 0.7494 | 1165.3 | 1185.9 | 1185.7 | 0.892 | 6.658 | 66.789 | 19.524 | 5.558 | 0.173 | 0.369 | 0.018 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1369.99 | |
| 31 | 0.7509 | 1169.3 | 1190.0 | 1189.7 | 0.892 | 6.561 | 66.647 | 19.629 | 5.669 | 0.179 | 0.384 | 0.019 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.24 | |
| Avg | 0.7487 | 1169.0 | 1189.3 | 1189.0 | 0.895 | 6.394 | 66.910 | 19.768 | 5.413 | 0.178 | 0.397 | 0.022 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.46 | |

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:

Source Daily Summary

December 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 | 0.7202 | 1162.9 | 1183.5 | 1183.3 | 1.149 | 3.691 | 69.632 | 23.004 | 2.174 | 0.093 | 0.222 | 0.016 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1394.63 | |
| 2 | 0.7192 | 1160.0 | 1180.6 | 1180.3 | 1.152 | 3.767 | 69.925 | 22.547 | 2.250 | 0.097 | 0.228 | 0.016 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1392.11 | |
| 3 | 0.7190 | 1159.0 | 1179.5 | 1179.3 | 1.163 | 3.794 | 70.027 | 22.367 | 2.277 | 0.099 | 0.235 | 0.017 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1391.06 | |
| 4 | 0.7200 | 1161.3 | 1181.8 | 1181.6 | 1.164 | 3.750 | 69.799 | 22.669 | 2.249 | 0.098 | 0.233 | 0.017 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1392.81 | |
| 5 | 0.7190 | 1160.0 | 1180.6 | 1180.3 | 1.177 | 3.715 | 69.987 | 22.522 | 2.238 | 0.097 | 0.229 | 0.016 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1392.26 | |
| 6 | 0.7189 | 1153.5 | 1173.9 | 1173.7 | 1.175 | 4.104 | 69.944 | 22.179 | 2.234 | 0.098 | 0.231 | 0.016 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.57 | |
| 7 | 0.7195 | 1160.6 | 1181.2 | 1180.9 | 1.196 | 3.694 | 69.937 | 22.556 | 2.248 | 0.098 | 0.234 | 0.017 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1392.52 | |
| 8 | 0.7199 | 1161.4 | 1181.9 | 1181.7 | 1.185 | 3.706 | 69.782 | 22.756 | 2.208 | 0.096 | 0.231 | 0.016 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1392.99 | |
| 9 | 0.7199 | 1161.3 | 1181.9 | 1181.6 | 1.185 | 3.710 | 69.792 | 22.731 | 2.220 | 0.096 | 0.231 | 0.016 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1392.93 | |
| 10 | 0.7178 | 1159.0 | 1179.6 | 1179.3 | 1.170 | 3.673 | 70.180 | 22.425 | 2.193 | 0.096 | 0.228 | 0.016 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1392.26 | |
| 11 | 0.7187 | 1159.4 | 1179.9 | 1179.7 | 1.178 | 3.721 | 70.029 | 22.496 | 2.213 | 0.096 | 0.230 | 0.017 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1391.82 | |
| 12 | 0.7189 | 1160.6 | 1181.1 | 1180.9 | 1.180 | 3.668 | 69.978 | 22.604 | 2.213 | 0.096 | 0.226 | 0.016 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1393.00 | |
| 13 | 0.7199 | 1155.8 | 1176.2 | 1176.0 | 1.178 | 4.056 | 69.711 | 22.497 | 2.197 | 0.096 | 0.228 | 0.017 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1386.32 | |
| 14 | 0.7187 | 1159.9 | 1180.4 | 1180.2 | 1.189 | 3.675 | 70.032 | 22.538 | 2.206 | 0.096 | 0.227 | 0.017 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1392.40 | |
| 15 | 0.7175 | 1156.0 | 1176.4 | 1176.3 | 1.184 | 3.812 | 70.264 | 22.148 | 2.232 | 0.097 | 0.227 | 0.016 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1388.81 | |
| 16 | 0.7072 | 1119.3 | 1139.1 | 1138.9 | 1.096 | 5.211 | 71.816 | 19.532 | 1.995 | 0.093 | 0.220 | 0.017 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1354.63 | |
| 17 | 0.7029 | 1112.6 | 1132.3 | 1132.1 | 1.171 | 5.097 | 73.042 | 18.115 | 2.217 | 0.092 | 0.221 | 0.019 | 0.025 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1350.87 | |
| 18 | 0.7151 | 1148.8 | 1169.2 | 1169.0 | 1.166 | 4.040 | 70.870 | 21.201 | 2.352 | 0.101 | 0.234 | 0.016 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.64 | |
| 19 | 0.7175 | 1156.3 | 1176.7 | 1176.5 | 1.178 | 3.794 | 70.612 | 21.546 | 2.463 | 0.108 | 0.258 | 0.019 | 0.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1389.24 | |
| 20 | 0.7160 | 1152.7 | 1173.1 | 1172.9 | 1.181 | 3.869 | 70.895 | 21.207 | 2.440 | 0.107 | 0.256 | 0.020 | 0.025 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1386.37 | |
| 21 | 0.7150 | 1150.9 | 1171.2 | 1171.0 | 1.162 | 3.920 | 70.975 | 21.153 | 2.404 | 0.104 | 0.244 | 0.018 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1385.11 | |
| 22 | 0.7097 | 1139.9 | 1160.1 | 1159.9 | 1.119 | 4.146 | 72.024 | 19.889 | 2.434 | 0.104 | 0.244 | 0.018 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.10 | |
| 23 | 0.7011 | 1127.7 | 1147.7 | 1147.5 | 1.134 | 4.060 | 73.774 | 18.247 | 2.396 | 0.104 | 0.245 | 0.018 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1370.67 | |
| 24 | 0.7087 | 1141.2 | 1161.4 | 1161.2 | 1.144 | 3.936 | 72.342 | 19.735 | 2.439 | 0.106 | 0.253 | 0.020 | 0.025 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.63 | |
| 25 | 0.7122 | 1138.4 | 1158.6 | 1158.4 | 1.079 | 4.539 | 71.579 | 19.846 | 2.532 | 0.113 | 0.270 | 0.020 | 0.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.83 | |
| 26 | 0.7079 | 1126.6 | 1146.6 | 1146.3 | 1.094 | 4.832 | 72.047 | 19.409 | 2.244 | 0.098 | 0.236 | 0.018 | 0.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1362.74 | |
| 27 | 0.7080 | 1135.7 | 1155.9 | 1155.6 | 1.069 | 4.323 | 72.001 | 20.044 | 2.205 | 0.095 | 0.226 | 0.017 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.64 | |
| 28 | 0.7094 | 1137.3 | 1157.4 | 1157.2 | 1.098 | 4.319 | 71.809 | 20.153 | 2.247 | 0.099 | 0.237 | 0.018 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.16 | |
| 29 | 0.7119 | 1141.1 | 1161.3 | 1161.0 | 1.115 | 4.293 | 71.427 | 20.455 | 2.327 | 0.101 | 0.242 | 0.018 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.35 | |
| 30 | 0.7146 | 1147.0 | 1167.3 | 1167.1 | 1.124 | 4.172 | 70.920 | 21.062 | 2.337 | 0.102 | 0.244 | 0.018 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.87 | |
| 31 | 0.7150 | 1149.3 | 1169.7 | 1169.4 | 1.124 | 4.065 | 70.805 | 21.327 | 2.302 | 0.100 | 0.239 | 0.017 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.31 | |
| Avg | 0.7148 | 1149.0 | 1169.2 | 1169.0 | 1.151 | 4.037 | 70.837 | 21.321 | 2.280 | 0.099 | 0.236 | 0.017 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.92 | |

Source Daily Summary

December 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 | 0.7369 | 1162.1 | 1182.7 | 1181.8 | 0.791 | 5.841 | 68.572 | 19.422 | 4.824 | 0.157 | 0.354 | 0.020 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.75 | |
| 2 | 0.7317 | 1155.7 | 1176.1 | 1175.3 | 0.811 | 5.712 | 69.261 | 19.222 | 4.485 | 0.147 | 0.325 | 0.018 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.98 | |
| 3 | 0.7338 | 1157.5 | 1178.0 | 1177.1 | 0.807 | 5.808 | 68.963 | 19.271 | 4.640 | 0.148 | 0.328 | 0.018 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.15 | |
| 4 | 0.7495 | 1173.1 | 1193.9 | 1192.8 | 0.854 | 6.260 | 66.862 | 19.888 | 5.489 | 0.182 | 0.417 | 0.024 | 0.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.99 | |
| 5 | 0.7494 | 1173.0 | 1193.8 | 1192.7 | 0.851 | 6.255 | 66.891 | 19.870 | 5.480 | 0.183 | 0.421 | 0.024 | 0.025 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.03 | |
| 6 | 0.7332 | 1156.7 | 1177.2 | 1176.3 | 0.790 | 5.821 | 69.039 | 19.234 | 4.602 | 0.148 | 0.330 | 0.018 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.83 | |
| 7 | 0.7284 | 1150.8 | 1171.2 | 1170.3 | 0.772 | 5.765 | 69.602 | 19.090 | 4.308 | 0.135 | 0.297 | 0.016 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.26 | |
| 8 | 0.7438 | 1167.0 | 1187.7 | 1186.7 | 0.828 | 6.136 | 67.597 | 19.677 | 5.159 | 0.171 | 0.388 | 0.022 | 0.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.06 | |
| 9 | 0.7446 | 1165.9 | 1186.5 | 1185.5 | 0.834 | 6.271 | 67.494 | 19.573 | 5.217 | 0.174 | 0.393 | 0.022 | 0.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.99 | |
| 10 | 0.7527 | 1173.8 | 1194.6 | 1193.6 | 0.866 | 6.497 | 66.419 | 19.880 | 5.658 | 0.192 | 0.439 | 0.025 | 0.025 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.89 | |
| 11 | 0.7525 | 1172.1 | 1192.8 | 1191.8 | 0.869 | 6.575 | 66.459 | 19.766 | 5.649 | 0.192 | 0.439 | 0.025 | 0.025 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.08 | |
| 12 | 0.7559 | 1178.4 | 1199.3 | 1198.2 | 0.867 | 6.508 | 66.044 | 20.032 | 5.824 | 0.202 | 0.467 | 0.027 | 0.028 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.39 | |
| 13 | 0.7536 | 1174.3 | 1195.0 | 1193.9 | 0.865 | 6.555 | 66.282 | 19.916 | 5.694 | 0.193 | 0.444 | 0.025 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.59 | |
| 14 | 0.7549 | 1177.3 | 1198.1 | 1197.0 | 0.866 | 6.486 | 66.158 | 20.007 | 5.778 | 0.197 | 0.455 | 0.026 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.98 | |
| 15 | 0.7510 | 1174.8 | 1195.6 | 1194.8 | 0.849 | 6.299 | 66.686 | 19.909 | 5.593 | 0.187 | 0.429 | 0.024 | 0.024 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.66 | |
| 16 | 0.7389 | 1164.3 | 1184.9 | 1184.1 | 0.826 | 5.845 | 68.389 | 19.378 | 5.001 | 0.161 | 0.362 | 0.019 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.44 | |
| 17 | 0.7213 | 1163.9 | 1184.5 | 1183.7 | 0.731 | 4.360 | 71.014 | 19.465 | 3.884 | 0.148 | 0.348 | 0.024 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1394.69 | |
| 18 | 0.7097 | 1141.3 | 1161.5 | 1160.7 | 0.704 | 4.690 | 72.400 | 18.459 | 3.381 | 0.112 | 0.230 | 0.012 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.78 | |
| 19 | 0.7127 | 1143.8 | 1164.0 | 1163.3 | 0.688 | 4.846 | 71.949 | 18.592 | 3.533 | 0.120 | 0.247 | 0.013 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.86 | |
| 20 | 0.7117 | 1138.8 | 1159.0 | 1158.2 | 0.706 | 5.028 | 72.260 | 17.948 | 3.672 | 0.118 | 0.243 | 0.013 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.79 | |
| 21 | 0.7049 | 1133.2 | 1153.3 | 1152.5 | 0.742 | 4.673 | 73.281 | 17.665 | 3.297 | 0.106 | 0.215 | 0.011 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.67 | |
| 22 | 0.7033 | 1133.0 | 1153.1 | 1152.3 | 0.738 | 4.548 | 73.514 | 17.655 | 3.207 | 0.104 | 0.212 | 0.011 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.93 | |
| 23 | 0.6966 | 1125.9 | 1145.8 | 1145.0 | 0.762 | 4.308 | 74.791 | 16.747 | 3.072 | 0.098 | 0.202 | 0.010 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.89 | |
| 24 | 0.7001 | 1130.2 | 1150.2 | 1149.4 | 0.785 | 4.345 | 74.212 | 17.149 | 3.179 | 0.102 | 0.208 | 0.010 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.62 | |
| 25 | 0.7109 | 1141.3 | 1161.5 | 1160.8 | 0.733 | 4.755 | 72.601 | 17.781 | 3.722 | 0.125 | 0.256 | 0.014 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.62 | |
| 26 | 0.7116 | 1135.1 | 1155.2 | 1154.5 | 0.803 | 5.123 | 71.963 | 17.784 | 3.877 | 0.131 | 0.266 | 0.014 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1369.29 | |
| 27 | 0.7152 | 1145.4 | 1165.7 | 1164.9 | 0.801 | 4.810 | 72.122 | 17.833 | 3.982 | 0.136 | 0.286 | 0.015 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.34 | |
| 28 | 0.7277 | 1149.6 | 1169.9 | 1169.0 | 0.843 | 5.664 | 70.275 | 18.025 | 4.698 | 0.147 | 0.316 | 0.016 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1371.42 | |
| 29 | 0.7303 | 1156.0 | 1176.4 | 1175.5 | 0.785 | 5.605 | 69.619 | 18.883 | 4.613 | 0.147 | 0.315 | 0.016 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.63 | |
| 30 | 0.7328 | 1155.4 | 1175.9 | 1174.9 | 0.807 | 5.842 | 69.177 | 18.971 | 4.716 | 0.146 | 0.310 | 0.015 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.59 | |
| 31 | 0.7405 | 1161.5 | 1182.1 | 1181.1 | 0.846 | 6.132 | 68.152 | 19.172 | 5.158 | 0.162 | 0.344 | 0.017 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.66 | |
| Avg | 0.7303 | 1156.0 | 1176.3 | 1175.4 | 0.801 | 5.592 | 69.614 | 18.912 | 4.561 | 0.151 | 0.332 | 0.018 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.54 | |

Source Daily Summary

December 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 | 0.7325 | 1156.5 | 1177.0 | 1176.1 | 0.788 | 5.769 | 69.134 | 19.254 | 4.559 | 0.144 | 0.317 | 0.018 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.29 | |
| 2 | 0.7395 | 1164.3 | 1184.9 | 1184.3 | 0.822 | 5.902 | 68.242 | 19.526 | 4.939 | 0.162 | 0.364 | 0.021 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.88 | |
| 3 | 0.7275 | 1150.3 | 1170.7 | 1170.5 | 0.796 | 5.670 | 69.852 | 18.910 | 4.304 | 0.137 | 0.297 | 0.017 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.54 | |
| 4 | 0.7396 | 1163.3 | 1183.9 | 1183.7 | 0.830 | 5.968 | 68.219 | 19.451 | 4.974 | 0.160 | 0.357 | 0.020 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.54 | |
| 5 | 0.7538 | 1177.3 | 1198.2 | 1198.0 | 0.871 | 6.375 | 66.304 | 20.059 | 5.709 | 0.192 | 0.438 | 0.026 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.02 | |
| 6 | 0.7438 | 1166.4 | 1187.1 | 1186.9 | 0.839 | 6.148 | 67.625 | 19.624 | 5.170 | 0.169 | 0.381 | 0.022 | 0.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.44 | |
| 7 | 0.7282 | 1151.0 | 1171.4 | 1171.3 | 0.771 | 5.732 | 69.689 | 19.017 | 4.323 | 0.137 | 0.298 | 0.017 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.72 | |
| 8 | 0.7342 | 1156.3 | 1176.8 | 1176.6 | 0.802 | 5.927 | 68.834 | 19.311 | 4.624 | 0.146 | 0.321 | 0.018 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.34 | |
| 9 | 0.7458 | 1167.8 | 1188.5 | 1188.3 | 0.840 | 6.252 | 67.358 | 19.664 | 5.265 | 0.177 | 0.398 | 0.023 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.19 | |
| 10 | 0.7487 | 1169.0 | 1189.7 | 1189.5 | 0.858 | 6.426 | 66.910 | 19.770 | 5.407 | 0.179 | 0.404 | 0.023 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.90 | |
| 11 | 0.7537 | 1173.8 | 1194.6 | 1194.4 | 0.877 | 6.573 | 66.280 | 19.894 | 5.692 | 0.193 | 0.439 | 0.025 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.97 | |
| 12 | 0.7546 | 1175.1 | 1195.9 | 1195.8 | 0.876 | 6.580 | 66.172 | 19.934 | 5.744 | 0.196 | 0.446 | 0.026 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.68 | |
| 13 | 0.7552 | 1176.3 | 1197.1 | 1197.0 | 0.876 | 6.565 | 66.098 | 19.985 | 5.773 | 0.198 | 0.452 | 0.027 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.50 | |
| 14 | 0.7547 | 1175.3 | 1196.1 | 1196.0 | 0.873 | 6.579 | 66.172 | 19.915 | 5.764 | 0.196 | 0.448 | 0.026 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.86 | |
| 15 | 0.7556 | 1177.8 | 1198.7 | 1198.5 | 0.873 | 6.509 | 66.039 | 20.083 | 5.800 | 0.195 | 0.447 | 0.026 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.97 | |
| 16 | 0.7498 | 1173.6 | 1194.4 | 1193.7 | 0.849 | 6.263 | 66.846 | 19.863 | 5.538 | 0.182 | 0.414 | 0.023 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.30 | |
| 17 | 0.7297 | 1161.2 | 1181.7 | 1181.1 | 0.769 | 5.251 | 69.793 | 19.149 | 4.502 | 0.152 | 0.343 | 0.020 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.44 | |
| 18 | 0.7141 | 1153.8 | 1174.2 | 1173.6 | 0.720 | 4.314 | 71.897 | 19.131 | 3.487 | 0.127 | 0.285 | 0.019 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1389.56 | |
| 19 | 0.7110 | 1141.0 | 1161.2 | 1160.6 | 0.701 | 4.839 | 72.186 | 18.453 | 3.450 | 0.115 | 0.232 | 0.012 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.12 | |
| 20 | 0.7154 | 1146.1 | 1166.4 | 1166.2 | 0.700 | 4.935 | 71.633 | 18.600 | 3.724 | 0.125 | 0.255 | 0.014 | 0.014 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.11 | |
| 21 | 0.7077 | 1133.9 | 1154.0 | 1153.9 | 0.730 | 4.912 | 72.844 | 17.715 | 3.447 | 0.109 | 0.221 | 0.011 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1371.78 | |
| 22 | 0.7025 | 1130.2 | 1150.2 | 1150.1 | 0.752 | 4.616 | 73.708 | 17.371 | 3.220 | 0.103 | 0.208 | 0.011 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.36 | |
| 23 | 0.7043 | 1133.2 | 1153.2 | 1153.1 | 0.743 | 4.619 | 73.391 | 17.644 | 3.261 | 0.106 | 0.214 | 0.012 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.20 | |
| 24 | 0.6937 | 1123.2 | 1143.1 | 1143.0 | 0.780 | 4.169 | 75.311 | 16.451 | 2.986 | 0.094 | 0.190 | 0.010 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.53 | |
| 25 | 0.7027 | 1132.5 | 1152.6 | 1152.5 | 0.781 | 4.449 | 73.869 | 17.223 | 3.321 | 0.110 | 0.222 | 0.012 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.95 | |
| 26 | 0.7152 | 1144.7 | 1164.9 | 1164.8 | 0.738 | 4.946 | 71.917 | 18.079 | 3.899 | 0.129 | 0.264 | 0.014 | 0.014 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.52 | |
| 27 | 0.7160 | 1143.7 | 1164.0 | 1163.9 | 0.830 | 4.943 | 71.906 | 17.940 | 3.951 | 0.132 | 0.270 | 0.014 | 0.014 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.57 | |
| 28 | 0.7208 | 1148.4 | 1168.7 | 1168.6 | 0.831 | 5.102 | 71.343 | 17.960 | 4.293 | 0.141 | 0.297 | 0.016 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.61 | |
| 29 | 0.7265 | 1149.3 | 1169.7 | 1169.6 | 0.838 | 5.567 | 70.386 | 18.178 | 4.546 | 0.145 | 0.307 | 0.016 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.34 | |
| 30 | 0.7317 | 1155.7 | 1176.2 | 1176.0 | 0.763 | 5.786 | 69.313 | 19.002 | 4.656 | 0.144 | 0.305 | 0.016 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.99 | |
| 31 | 0.7339 | 1155.5 | 1176.0 | 1175.9 | 0.841 | 5.888 | 69.059 | 18.944 | 4.777 | 0.149 | 0.311 | 0.016 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.69 | |
| Avg | 0.7304 | 1156.0 | 1176.2 | 1175.9 | 0.805 | 5.599 | 69.624 | 18.906 | 4.552 | 0.150 | 0.327 | 0.018 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.32 | |

Source Daily Summary

December 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 | 0.7324 | 1156.4 | 1176.9 | 1176.4 | 0.789 | 5.771 | 69.137 | 19.249 | 4.556 | 0.143 | 0.317 | 0.018 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.15 | |
| 2 | 0.7397 | 1164.5 | 1185.2 | 1184.9 | 0.822 | 5.910 | 68.203 | 19.541 | 4.951 | 0.163 | 0.366 | 0.021 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.96 | |
| 3 | 0.7276 | 1150.5 | 1170.9 | 1170.7 | 0.798 | 5.670 | 69.834 | 18.917 | 4.310 | 0.138 | 0.299 | 0.017 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.63 | |
| 4 | 0.7392 | 1162.8 | 1183.4 | 1183.2 | 0.829 | 5.959 | 68.273 | 19.435 | 4.950 | 0.159 | 0.355 | 0.020 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.38 | |
| 5 | 0.7537 | 1177.2 | 1198.0 | 1197.8 | 0.871 | 6.376 | 66.317 | 20.050 | 5.704 | 0.192 | 0.438 | 0.026 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.92 | |
| 6 | 0.7441 | 1166.6 | 1187.2 | 1187.0 | 0.841 | 6.168 | 67.576 | 19.632 | 5.186 | 0.170 | 0.383 | 0.022 | 0.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.30 | |
| 7 | 0.7284 | 1151.3 | 1171.7 | 1171.5 | 0.773 | 5.735 | 69.658 | 19.028 | 4.336 | 0.137 | 0.300 | 0.017 | 0.017 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.82 | |
| 8 | 0.7337 | 1155.7 | 1176.2 | 1176.0 | 0.800 | 5.918 | 68.903 | 19.287 | 4.594 | 0.145 | 0.318 | 0.018 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.13 | |
| 9 | 0.7458 | 1167.7 | 1188.4 | 1188.2 | 0.841 | 6.257 | 67.357 | 19.660 | 5.265 | 0.176 | 0.398 | 0.023 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.08 | |
| 10 | 0.7484 | 1168.6 | 1189.3 | 1189.1 | 0.857 | 6.421 | 66.951 | 19.754 | 5.390 | 0.179 | 0.403 | 0.023 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.77 | |
| 11 | 0.7537 | 1173.7 | 1194.4 | 1194.3 | 0.877 | 6.576 | 66.287 | 19.886 | 5.689 | 0.193 | 0.440 | 0.025 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.85 | |
| 12 | 0.7545 | 1174.7 | 1195.5 | 1195.4 | 0.876 | 6.587 | 66.194 | 19.916 | 5.733 | 0.196 | 0.445 | 0.026 | 0.026 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.38 | |
| 13 | 0.7552 | 1176.2 | 1197.1 | 1196.9 | 0.876 | 6.569 | 66.098 | 19.979 | 5.773 | 0.198 | 0.453 | 0.027 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.44 | |
| 14 | 0.7546 | 1174.9 | 1195.7 | 1195.6 | 0.874 | 6.588 | 66.190 | 19.899 | 5.753 | 0.196 | 0.448 | 0.026 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.54 | |
| 15 | 0.7552 | 1177.1 | 1198.0 | 1197.8 | 0.873 | 6.518 | 66.075 | 20.066 | 5.777 | 0.194 | 0.444 | 0.026 | 0.027 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.49 | |
| 16 | 0.7494 | 1172.9 | 1193.7 | 1193.4 | 0.849 | 6.262 | 66.907 | 19.834 | 5.509 | 0.181 | 0.413 | 0.023 | 0.023 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.95 | |
| 17 | 0.7298 | 1160.8 | 1181.4 | 1181.0 | 0.772 | 5.278 | 69.777 | 19.126 | 4.513 | 0.152 | 0.342 | 0.020 | 0.020 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.93 | |
| 18 | 0.7143 | 1154.3 | 1174.8 | 1174.5 | 0.721 | 4.305 | 71.867 | 19.152 | 3.499 | 0.128 | 0.287 | 0.020 | 0.021 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1389.94 | |
| 19 | 0.7109 | 1140.8 | 1161.0 | 1160.7 | 0.701 | 4.839 | 72.206 | 18.441 | 3.443 | 0.115 | 0.231 | 0.012 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.98 | |
| 20 | 0.7156 | 1146.4 | 1166.7 | 1166.6 | 0.698 | 4.944 | 71.590 | 18.633 | 3.726 | 0.125 | 0.256 | 0.014 | 0.014 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.20 | |
| 21 | 0.7079 | 1133.9 | 1154.0 | 1153.9 | 0.730 | 4.929 | 72.819 | 17.708 | 3.460 | 0.109 | 0.222 | 0.011 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1371.63 | |
| 22 | 0.7027 | 1130.4 | 1150.4 | 1150.3 | 0.753 | 4.623 | 73.676 | 17.387 | 3.227 | 0.104 | 0.209 | 0.011 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.35 | |
| 23 | 0.7046 | 1133.6 | 1153.7 | 1153.6 | 0.743 | 4.627 | 73.332 | 17.683 | 3.271 | 0.106 | 0.215 | 0.012 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.34 | |
| 24 | 0.6938 | 1123.4 | 1143.3 | 1143.2 | 0.780 | 4.174 | 75.286 | 16.467 | 2.989 | 0.094 | 0.191 | 0.010 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.56 | |
| 25 | 0.7029 | 1132.7 | 1152.7 | 1152.7 | 0.786 | 4.455 | 73.833 | 17.240 | 3.330 | 0.110 | 0.222 | 0.012 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.90 | |
| 26 | 0.7154 | 1145.1 | 1165.4 | 1165.3 | 0.738 | 4.943 | 71.874 | 18.119 | 3.904 | 0.129 | 0.265 | 0.015 | 0.014 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.80 | |
| 27 | 0.7160 | 1143.6 | 1163.8 | 1163.7 | 0.829 | 4.950 | 71.908 | 17.935 | 3.949 | 0.132 | 0.269 | 0.014 | 0.014 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.42 | |
| 28 | 0.7211 | 1149.1 | 1169.4 | 1169.3 | 0.831 | 5.087 | 71.292 | 18.019 | 4.299 | 0.141 | 0.299 | 0.016 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.20 | |
| 29 | 0.7266 | 1149.1 | 1169.5 | 1169.4 | 0.840 | 5.586 | 70.375 | 18.161 | 4.554 | 0.145 | 0.308 | 0.016 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.00 | |
| 30 | 0.7318 | 1155.9 | 1176.4 | 1176.3 | 0.765 | 5.780 | 69.301 | 19.007 | 4.664 | 0.144 | 0.307 | 0.016 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.15 | |
| 31 | 0.7340 | 1155.5 | 1176.0 | 1175.9 | 0.841 | 5.896 | 69.041 | 18.949 | 4.781 | 0.149 | 0.312 | 0.016 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.62 | |
| Avg | 0.7304 | 1156.0 | 1176.1 | 1176.0 | 0.806 | 5.603 | 69.617 | 18.908 | 4.551 | 0.150 | 0.328 | 0.018 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.25 | |

Source Daily Summary

December 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 | 0.6792 | 1120.9 | 1140.7 | 1140.3 | 0.483 | 3.412 | 76.558 | 17.630 | 1.764 | 0.051 | 0.091 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.16 | |
| 2 | 0.6819 | 1123.3 | 1143.2 | 1142.8 | 0.639 | 3.284 | 76.335 | 17.714 | 1.834 | 0.064 | 0.115 | 0.008 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.38 | |
| 3 | 0.6801 | 1120.7 | 1140.5 | 1140.2 | 0.594 | 3.341 | 76.629 | 17.420 | 1.832 | 0.061 | 0.110 | 0.008 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.00 | |
| 4 | 0.6783 | 1118.1 | 1137.9 | 1137.5 | 0.603 | 3.316 | 76.962 | 17.141 | 1.797 | 0.059 | 0.107 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.63 | |
| 5 | 0.6781 | 1117.7 | 1137.4 | 1137.1 | 0.582 | 3.352 | 76.979 | 17.115 | 1.795 | 0.058 | 0.105 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.31 | |
| 6 | 0.6782 | 1118.1 | 1137.9 | 1137.5 | 0.540 | 3.402 | 76.836 | 17.306 | 1.746 | 0.056 | 0.101 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.72 | |
| 7 | 0.6797 | 1120.9 | 1140.7 | 1140.3 | 0.517 | 3.410 | 76.491 | 17.676 | 1.741 | 0.054 | 0.098 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.61 | |
| 8 | 0.6818 | 1124.3 | 1144.3 | 1143.9 | 0.500 | 3.416 | 76.150 | 17.933 | 1.837 | 0.054 | 0.098 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1385.83 | |
| 9 | 0.6792 | 1120.1 | 1139.9 | 1139.5 | 0.482 | 3.460 | 76.517 | 17.676 | 1.703 | 0.053 | 0.096 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.18 | |
| 10 | 0.6801 | 1122.2 | 1142.1 | 1141.7 | 0.505 | 3.383 | 76.400 | 17.813 | 1.734 | 0.054 | 0.098 | 0.007 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.87 | |
| 11 | 0.6776 | 1118.3 | 1138.1 | 1137.7 | 0.445 | 3.481 | 76.708 | 17.574 | 1.642 | 0.049 | 0.090 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.55 | |
| 12 | 0.6810 | 1123.9 | 1143.8 | 1143.4 | 0.474 | 3.412 | 76.233 | 17.919 | 1.801 | 0.053 | 0.096 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1386.06 | |
| 13 | 0.6818 | 1127.9 | 1147.9 | 1147.5 | 0.465 | 3.254 | 75.910 | 18.584 | 1.640 | 0.050 | 0.087 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1390.21 | |
| 14 | 0.6898 | 1142.5 | 1162.7 | 1162.4 | 0.452 | 3.143 | 74.329 | 20.225 | 1.699 | 0.050 | 0.090 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1399.95 | |
| 15 | 0.6876 | 1136.2 | 1156.3 | 1156.0 | 0.492 | 3.260 | 74.980 | 19.249 | 1.854 | 0.054 | 0.097 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1394.43 | |
| 16 | 0.6850 | 1128.3 | 1148.3 | 1148.0 | 0.611 | 3.309 | 75.901 | 17.926 | 2.051 | 0.066 | 0.119 | 0.008 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1387.40 | |
| 17 | 0.6751 | 1112.6 | 1132.3 | 1132.0 | 0.495 | 3.514 | 77.334 | 16.816 | 1.672 | 0.055 | 0.102 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.11 | |
| 18 | 0.6763 | 1115.3 | 1135.0 | 1134.7 | 0.478 | 3.492 | 77.059 | 17.139 | 1.664 | 0.055 | 0.100 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.15 | |
| 19 | 0.6751 | 1114.7 | 1134.4 | 1134.1 | 0.435 | 3.479 | 77.146 | 17.214 | 1.570 | 0.051 | 0.092 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.68 | |
| 20 | 0.6705 | 1111.3 | 1131.0 | 1130.7 | 0.530 | 3.104 | 78.142 | 16.587 | 1.502 | 0.045 | 0.081 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.24 | |
| 21 | 0.6625 | 1100.4 | 1119.9 | 1119.6 | 0.560 | 2.978 | 79.540 | 15.533 | 1.268 | 0.040 | 0.071 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.83 | |
| 22 | 0.6654 | 1102.2 | 1121.7 | 1121.4 | 0.557 | 3.146 | 79.128 | 15.605 | 1.416 | 0.048 | 0.088 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1375.06 | |
| 23 | 0.6535 | 1090.2 | 1109.5 | 1109.2 | 0.615 | 2.658 | 81.475 | 13.906 | 1.213 | 0.043 | 0.078 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1372.59 | |
| 24 | 0.6534 | 1091.3 | 1110.6 | 1110.4 | 0.601 | 2.611 | 81.493 | 13.933 | 1.228 | 0.044 | 0.079 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.95 | |
| 25 | 0.6645 | 1104.9 | 1124.5 | 1124.2 | 0.489 | 2.995 | 79.451 | 15.342 | 1.559 | 0.055 | 0.095 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.40 | |
| 26 | 0.6661 | 1105.5 | 1125.1 | 1124.8 | 0.669 | 2.831 | 79.477 | 15.189 | 1.646 | 0.062 | 0.110 | 0.008 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.53 | |
| 27 | 0.6548 | 1092.1 | 1111.4 | 1111.1 | 0.613 | 2.675 | 81.273 | 14.025 | 1.278 | 0.046 | 0.080 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1373.48 | |
| 28 | 0.6376 | 1071.9 | 1090.9 | 1090.6 | 0.734 | 2.102 | 84.361 | 11.957 | 0.776 | 0.024 | 0.041 | 0.003 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1366.20 | |
| 29 | 0.6713 | 1111.7 | 1131.4 | 1131.1 | 0.539 | 3.141 | 78.026 | 16.633 | 1.508 | 0.051 | 0.090 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.87 | |
| 30 | 0.6733 | 1113.9 | 1133.6 | 1133.3 | 0.562 | 3.168 | 77.626 | 16.966 | 1.530 | 0.050 | 0.087 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.51 | |
| 31 | 0.6660 | 1102.4 | 1121.9 | 1121.6 | 0.596 | 3.133 | 78.838 | 16.041 | 1.276 | 0.039 | 0.069 | 0.005 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1374.68 | |
| Avg | 0.6731 | 1114.0 | 1133.4 | 1133.1 | 0.544 | 3.183 | 77.751 | 16.767 | 1.599 | 0.051 | 0.092 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.50 | |

Source Daily Summary

December 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 | 0.6813 | 1124.9 | 1144.9 | 1144.6 | 0.572 | 3.223 | 76.366 | 17.828 | 1.824 | 0.062 | 0.112 | 0.007 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1387.07 | |
| 2 | 0.6780 | 1119.7 | 1139.5 | 1139.2 | 0.567 | 3.244 | 76.959 | 17.285 | 1.759 | 0.061 | 0.111 | 0.007 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.89 | |
| 3 | 0.6773 | 1119.0 | 1138.8 | 1138.6 | 0.558 | 3.228 | 77.087 | 17.185 | 1.767 | 0.059 | 0.103 | 0.007 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.84 | |
| 4 | 0.6778 | 1119.7 | 1139.6 | 1139.3 | 0.557 | 3.235 | 77.014 | 17.221 | 1.800 | 0.059 | 0.103 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.20 | |
| 5 | 0.6758 | 1116.7 | 1136.4 | 1136.2 | 0.514 | 3.304 | 77.232 | 17.094 | 1.691 | 0.055 | 0.098 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.39 | |
| 6 | 0.6765 | 1118.5 | 1138.3 | 1138.0 | 0.459 | 3.339 | 76.987 | 17.402 | 1.659 | 0.052 | 0.092 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.96 | |
| 7 | 0.6802 | 1123.9 | 1143.8 | 1143.6 | 0.492 | 3.309 | 76.429 | 17.799 | 1.807 | 0.055 | 0.099 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1386.85 | |
| 8 | 0.6780 | 1120.7 | 1140.5 | 1140.3 | 0.450 | 3.365 | 76.670 | 17.689 | 1.672 | 0.052 | 0.093 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1385.10 | |
| 9 | 0.6791 | 1123.2 | 1143.1 | 1142.8 | 0.467 | 3.289 | 76.496 | 17.907 | 1.683 | 0.053 | 0.095 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1387.08 | |
| 10 | 0.6765 | 1118.9 | 1138.7 | 1138.5 | 0.419 | 3.380 | 76.884 | 17.542 | 1.629 | 0.049 | 0.088 | 0.005 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.41 | |
| 11 | 0.6799 | 1125.3 | 1145.2 | 1145.0 | 0.423 | 3.298 | 76.323 | 18.081 | 1.720 | 0.052 | 0.092 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1388.92 | |
| 12 | 0.6831 | 1133.6 | 1153.7 | 1153.5 | 0.414 | 3.112 | 75.493 | 19.266 | 1.584 | 0.047 | 0.079 | 0.004 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1395.88 | |
| 13 | 0.6891 | 1142.8 | 1163.0 | 1162.9 | 0.461 | 3.039 | 74.541 | 20.070 | 1.730 | 0.054 | 0.095 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1401.10 | |
| 14 | 0.6858 | 1136.0 | 1156.2 | 1156.0 | 0.450 | 3.165 | 75.223 | 19.216 | 1.791 | 0.053 | 0.093 | 0.005 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1396.07 | |
| 15 | 0.6852 | 1132.5 | 1152.6 | 1152.3 | 0.532 | 3.189 | 75.659 | 18.481 | 1.957 | 0.061 | 0.109 | 0.007 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1392.40 | |
| 16 | 0.6755 | 1115.3 | 1135.0 | 1134.8 | 0.512 | 3.364 | 77.381 | 16.798 | 1.766 | 0.058 | 0.107 | 0.007 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.95 | |
| 17 | 0.6739 | 1113.5 | 1133.2 | 1133.0 | 0.443 | 3.425 | 77.465 | 16.882 | 1.623 | 0.053 | 0.097 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.43 | |
| 18 | 0.6740 | 1115.0 | 1134.7 | 1134.5 | 0.419 | 3.381 | 77.336 | 17.160 | 1.550 | 0.051 | 0.092 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.16 | |
| 19 | 0.6763 | 1119.8 | 1139.6 | 1139.4 | 0.421 | 3.307 | 77.002 | 17.436 | 1.677 | 0.052 | 0.094 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1385.70 | |
| 20 | 0.6757 | 1118.9 | 1138.8 | 1138.6 | 0.386 | 3.353 | 76.980 | 17.544 | 1.588 | 0.049 | 0.089 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1385.29 | |
| 21 | 0.6713 | 1110.2 | 1129.9 | 1129.7 | 0.438 | 3.392 | 77.886 | 16.590 | 1.538 | 0.051 | 0.093 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.99 | |
| 22 | 0.6723 | 1109.6 | 1129.2 | 1129.0 | 0.529 | 3.377 | 77.962 | 16.298 | 1.650 | 0.060 | 0.109 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.27 | |
| 23 | 0.6735 | 1113.1 | 1132.8 | 1132.6 | 0.467 | 3.372 | 77.663 | 16.643 | 1.685 | 0.056 | 0.101 | 0.007 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.38 | |
| 24 | 0.6764 | 1119.2 | 1139.0 | 1138.8 | 0.383 | 3.406 | 77.069 | 17.183 | 1.792 | 0.056 | 0.099 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.89 | |
| 25 | 0.6776 | 1119.5 | 1139.4 | 1139.2 | 0.518 | 3.292 | 77.119 | 17.002 | 1.871 | 0.066 | 0.117 | 0.008 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.08 | |
| 26 | 0.6718 | 1111.5 | 1131.2 | 1131.0 | 0.505 | 3.256 | 78.051 | 16.346 | 1.664 | 0.059 | 0.105 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.09 | |
| 27 | 0.6760 | 1118.6 | 1138.4 | 1138.2 | 0.592 | 3.084 | 77.345 | 17.113 | 1.679 | 0.062 | 0.111 | 0.008 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.57 | |
| 28 | 0.6743 | 1119.0 | 1138.8 | 1138.6 | 0.413 | 3.172 | 77.237 | 17.534 | 1.500 | 0.049 | 0.086 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1386.87 | |
| 29 | 0.6764 | 1120.4 | 1140.3 | 1140.1 | 0.472 | 3.196 | 77.043 | 17.471 | 1.656 | 0.055 | 0.095 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1386.42 | |
| 30 | 0.6725 | 1114.6 | 1134.4 | 1134.2 | 0.404 | 3.285 | 77.507 | 17.206 | 1.467 | 0.044 | 0.078 | 0.004 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1383.27 | |
| 31 | 0.6722 | 1115.0 | 1134.7 | 1134.6 | 0.377 | 3.276 | 77.466 | 17.356 | 1.401 | 0.042 | 0.074 | 0.004 | 0.003 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.03 | |
| Avg | 0.6772 | 1120.0 | 1140.1 | 1139.9 | 0.471 | 3.279 | 76.899 | 17.504 | 1.683 | 0.055 | 0.097 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1385.44 | |

Source Daily Summary

December 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 | 0.6800 | 1118.4 | 1138.3 | 1137.6 | 0.677 | 3.337 | 76.841 | 17.040 | 1.901 | 0.066 | 0.122 | 0.008 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.36 | |
| 2 | 0.6770 | 1114.8 | 1134.6 | 1134.0 | 0.591 | 3.411 | 77.265 | 16.684 | 1.863 | 0.060 | 0.111 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.89 | |
| 3 | 0.6772 | 1115.1 | 1134.8 | 1134.1 | 0.618 | 3.371 | 77.270 | 16.688 | 1.865 | 0.061 | 0.112 | 0.008 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.02 | |
| 4 | 0.6748 | 1111.9 | 1131.6 | 1130.9 | 0.566 | 3.421 | 77.584 | 16.476 | 1.779 | 0.056 | 0.103 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.48 | |
| 5 | 0.6791 | 1117.5 | 1137.3 | 1136.5 | 0.721 | 3.246 | 77.170 | 16.678 | 1.971 | 0.070 | 0.127 | 0.009 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.05 | |
| 6 | 0.6771 | 1114.6 | 1134.3 | 1133.5 | 0.748 | 3.195 | 77.565 | 16.351 | 1.925 | 0.070 | 0.128 | 0.009 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.50 | |
| 7 | 0.6844 | 1125.2 | 1145.1 | 1144.2 | 0.948 | 2.927 | 76.714 | 16.935 | 2.207 | 0.087 | 0.159 | 0.012 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1384.17 | |
| 8 | 0.6825 | 1122.5 | 1142.4 | 1141.5 | 0.854 | 3.054 | 76.820 | 16.951 | 2.073 | 0.081 | 0.147 | 0.011 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.82 | |
| 9 | 0.6823 | 1120.2 | 1140.0 | 1138.6 | 0.904 | 3.102 | 76.979 | 16.626 | 2.128 | 0.085 | 0.154 | 0.011 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.15 | |
| 10 | 0.6782 | 1116.5 | 1136.2 | 1135.4 | 0.737 | 3.199 | 77.386 | 16.486 | 1.974 | 0.071 | 0.129 | 0.009 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.72 | |
| 11 | 0.6777 | 1118.0 | 1137.8 | 1137.0 | 0.619 | 3.243 | 77.117 | 17.030 | 1.811 | 0.060 | 0.106 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.09 | |
| 12 | 0.6959 | 1146.2 | 1166.5 | 1165.5 | 0.857 | 2.869 | 74.301 | 19.468 | 2.247 | 0.084 | 0.152 | 0.011 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1398.30 | |
| 13 | 0.6921 | 1140.4 | 1160.6 | 1159.7 | 0.722 | 3.069 | 74.805 | 18.968 | 2.212 | 0.073 | 0.132 | 0.009 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1395.05 | |
| 14 | 0.6870 | 1132.7 | 1152.8 | 1152.3 | 0.591 | 3.263 | 75.437 | 18.473 | 2.042 | 0.063 | 0.115 | 0.008 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1390.78 | |
| 15 | 0.7022 | 1151.8 | 1172.2 | 1171.3 | 1.211 | 2.578 | 74.072 | 19.079 | 2.706 | 0.115 | 0.207 | 0.016 | 0.016 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1398.82 | |
| 16 | 0.6782 | 1116.1 | 1135.9 | 1135.0 | 0.781 | 3.148 | 77.454 | 16.438 | 1.947 | 0.075 | 0.137 | 0.010 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.35 | |
| 17 | 0.6795 | 1118.9 | 1138.7 | 1137.8 | 0.632 | 3.328 | 76.885 | 17.070 | 1.878 | 0.067 | 0.123 | 0.009 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.46 | |
| 18 | 0.6752 | 1113.3 | 1133.0 | 1132.1 | 0.523 | 3.436 | 77.433 | 16.704 | 1.720 | 0.059 | 0.109 | 0.008 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.87 | |
| 19 | 0.6836 | 1127.0 | 1146.9 | 1146.1 | 0.691 | 3.141 | 76.350 | 17.527 | 2.066 | 0.073 | 0.133 | 0.010 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1387.13 | |
| 20 | 0.6721 | 1108.8 | 1128.5 | 1127.6 | 0.482 | 3.480 | 77.931 | 16.274 | 1.665 | 0.054 | 0.101 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.48 | |
| 21 | 0.6757 | 1113.0 | 1132.7 | 1132.0 | 0.632 | 3.336 | 77.628 | 16.342 | 1.851 | 0.067 | 0.125 | 0.009 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.96 | |
| 22 | 0.6805 | 1119.8 | 1139.7 | 1138.8 | 0.781 | 3.146 | 77.070 | 16.736 | 2.021 | 0.079 | 0.146 | 0.011 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.48 | |
| 23 | 0.6899 | 1134.0 | 1154.1 | 1153.2 | 0.934 | 2.923 | 75.780 | 17.728 | 2.332 | 0.098 | 0.178 | 0.013 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1389.46 | |
| 24 | 0.6754 | 1114.6 | 1134.4 | 1133.4 | 0.462 | 3.462 | 77.396 | 16.706 | 1.796 | 0.058 | 0.106 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1380.34 | |
| 25 | 0.6779 | 1116.2 | 1135.9 | 1135.3 | 0.747 | 3.176 | 77.589 | 16.197 | 2.046 | 0.080 | 0.145 | 0.011 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1379.58 | |
| 26 | 0.6667 | 1100.0 | 1119.4 | 1118.7 | 0.557 | 3.394 | 79.065 | 15.215 | 1.599 | 0.055 | 0.102 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1371.04 | |
| 27 | 0.6722 | 1109.7 | 1129.4 | 1128.5 | 0.562 | 3.314 | 78.166 | 15.982 | 1.789 | 0.061 | 0.111 | 0.007 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1377.44 | |
| 28 | 0.6774 | 1117.8 | 1137.6 | 1136.6 | 0.619 | 3.218 | 77.338 | 16.719 | 1.904 | 0.067 | 0.118 | 0.008 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1382.21 | |
| 29 | 0.6734 | 1111.4 | 1131.1 | 1130.2 | 0.523 | 3.381 | 77.745 | 16.487 | 1.705 | 0.053 | 0.095 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1378.36 | |
| 30 | 0.6708 | 1108.0 | 1127.6 | 1126.6 | 0.483 | 3.409 | 78.048 | 16.348 | 1.565 | 0.048 | 0.087 | 0.006 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.78 | |
| 31 | 0.6693 | 1106.7 | 1126.3 | 1125.3 | 0.417 | 3.445 | 78.257 | 16.192 | 1.554 | 0.045 | 0.080 | 0.005 | 0.005 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1376.74 | |
| Avg | 0.6795 | 1119.0 | 1139.2 | 1138.4 | 0.683 | 3.227 | 77.015 | 16.923 | 1.940 | 0.069 | 0.126 | 0.009 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1381.96 | |

Source Daily Summary

December 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 | 0.6868 | 1154.0 | 1174.5 | 1173.3 | 0.000 | 2.858 | 73.252 | 23.182 | 0.676 | 0.011 | 0.020 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1417.13 | -25.58 |
| 2 | 0.6874 | 1154.9 | 1175.3 | 1174.3 | 0.000 | 2.856 | 73.196 | 23.187 | 0.737 | 0.009 | 0.014 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1417.64 | -25.25 |
| 3 | 0.6883 | 1156.1 | 1176.6 | 1175.4 | 0.000 | 2.864 | 73.159 | 23.073 | 0.869 | 0.012 | 0.021 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1418.23 | -24.14 |
| 4 | 0.6879 | 1156.0 | 1176.5 | 1175.2 | 0.000 | 2.838 | 73.181 | 23.133 | 0.814 | 0.012 | 0.021 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1418.47 | -24.47 |
| 5 | 0.6874 | 1155.5 | 1176.0 | 1174.7 | 0.000 | 2.824 | 73.251 | 23.106 | 0.786 | 0.011 | 0.020 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1418.32 | -24.80 |
| 6 | 0.6871 | 1155.0 | 1175.4 | 1174.3 | 0.000 | 2.827 | 73.289 | 23.089 | 0.763 | 0.011 | 0.019 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1417.99 | -25.05 |
| 7 | 0.6878 | 1156.7 | 1177.1 | 1175.8 | 0.000 | 2.790 | 73.191 | 23.176 | 0.818 | 0.010 | 0.015 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1419.34 | -24.56 |
| 8 | 0.6885 | 1157.7 | 1178.2 | 1176.8 | 0.000 | 2.792 | 73.102 | 23.222 | 0.849 | 0.012 | 0.022 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1419.89 | -23.92 |
| 9 | 0.6877 | 1156.7 | 1177.1 | 1175.9 | 0.000 | 2.773 | 73.278 | 23.070 | 0.843 | 0.012 | 0.023 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1419.52 | -24.34 |
| 10 | 0.6884 | 1158.1 | 1178.6 | 1177.4 | 0.000 | 2.758 | 73.128 | 23.228 | 0.851 | 0.012 | 0.021 | 0.001 | 0.001 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1420.50 | -23.91 |
| 11 | 0.6841 | 1151.4 | 1171.7 | 1169.8 | 0.000 | 2.766 | 73.687 | 22.958 | 0.568 | 0.008 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1416.65 | -27.34 |
| 12 | 0.6848 | 1152.5 | 1172.9 | 1171.1 | 0.000 | 2.761 | 73.549 | 23.098 | 0.572 | 0.008 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1417.37 | -26.95 |
| 13 | 0.6839 | 1150.6 | 1171.0 | 1169.5 | 0.000 | 2.793 | 73.642 | 23.059 | 0.488 | 0.007 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1415.96 | -27.84 |
| 14 | 0.6829 | 1148.7 | 1169.0 | 1167.8 | 0.000 | 2.809 | 73.768 | 23.006 | 0.401 | 0.007 | 0.009 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1414.70 | -28.78 |
| 15 | 0.6840 | 1149.5 | 1169.8 | 1169.1 | 0.000 | 2.870 | 73.573 | 23.101 | 0.438 | 0.007 | 0.011 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1414.48 | -28.17 |
| 16 | 0.6861 | 1151.2 | 1171.6 | 1171.0 | 0.000 | 2.960 | 73.169 | 23.377 | 0.475 | 0.008 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1414.46 | -27.13 |
| 17 | 0.6839 | 1149.8 | 1170.2 | 1168.7 | 0.000 | 2.842 | 73.573 | 23.137 | 0.432 | 0.007 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1414.96 | -28.17 |
| 18 | 0.6845 | 1151.8 | 1172.2 | 1170.5 | 0.000 | 2.772 | 73.532 | 23.193 | 0.487 | 0.007 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1416.84 | -27.51 |
| 19 | 0.6837 | 1150.4 | 1170.8 | 1169.4 | 0.000 | 2.788 | 73.611 | 23.165 | 0.420 | 0.007 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1415.89 | -28.19 |
| 20 | 0.6842 | 1151.0 | 1171.4 | 1169.9 | 0.000 | 2.791 | 73.518 | 23.254 | 0.421 | 0.007 | 0.010 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1416.22 | -27.95 |
| 21 | 0.6869 | 1155.5 | 1175.9 | 1174.9 | 0.000 | 2.775 | 73.384 | 23.004 | 0.801 | 0.014 | 0.022 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1418.83 | -25.02 |
| 22 | 0.7055 | 1181.9 | 1202.8 | 1202.1 | 0.000 | 2.897 | 71.670 | 22.644 | 2.626 | 0.059 | 0.100 | 0.004 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1432.06 | -8.72 |
| 23 | 0.7009 | 1174.8 | 1195.6 | 1194.4 | 0.000 | 2.904 | 72.089 | 22.663 | 2.235 | 0.041 | 0.066 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1428.09 | -12.60 |
| 24 | 0.6890 | 1156.0 | 1176.5 | 1175.5 | 0.000 | 2.942 | 72.883 | 23.381 | 0.764 | 0.012 | 0.018 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1417.34 | -24.48 |
| 25 | 0.6860 | 1151.5 | 1171.9 | 1171.1 | 0.000 | 2.938 | 73.232 | 23.277 | 0.532 | 0.008 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1414.84 | -26.87 |
| 26 | 0.6875 | 1153.9 | 1174.3 | 1173.0 | 0.000 | 2.933 | 73.015 | 23.416 | 0.615 | 0.009 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1416.24 | -25.79 |
| 27 | 0.6868 | 1154.7 | 1175.1 | 1173.5 | 0.000 | 2.816 | 73.220 | 23.289 | 0.653 | 0.009 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1417.95 | -25.76 |
| 28 | 0.6866 | 1154.6 | 1175.0 | 1173.8 | 0.000 | 2.799 | 73.250 | 23.294 | 0.636 | 0.008 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1418.10 | -25.91 |
| 29 | 0.6867 | 1154.6 | 1175.1 | 1173.6 | 0.000 | 2.807 | 73.209 | 23.349 | 0.615 | 0.008 | 0.012 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1418.03 | -25.95 |
| 30 | 0.6872 | 1155.9 | 1176.4 | 1174.4 | 0.000 | 2.777 | 73.142 | 23.411 | 0.649 | 0.009 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1419.08 | -25.49 |
| 31 | 0.6865 | 1154.8 | 1175.2 | 1173.5 | 0.000 | 2.777 | 73.292 | 23.261 | 0.649 | 0.009 | 0.013 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1418.45 | -25.86 |
| Avg | 0.6874 | 1155.0 | 1175.8 | 1174.5 | 0.000 | 2.829 | 73.227 | 23.155 | 0.757 | 0.012 | 0.019 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1418.18 | -25.05 |

Source Daily Summary

December 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 | 0.6553 | 1078.0 | 1097.1 | 1096.8 | 0.572 | 3.643 | 81.000 | 13.353 | 1.291 | 0.043 | 0.087 | 0.006 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1355.29 | |
| 2 | 0.6555 | 1079.4 | 1098.5 | 1098.3 | 0.574 | 3.575 | 80.969 | 13.442 | 1.299 | 0.043 | 0.084 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1356.80 | |
| 3 | 0.6555 | 1078.2 | 1097.3 | 1097.0 | 0.579 | 3.642 | 80.990 | 13.331 | 1.313 | 0.044 | 0.088 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1355.29 | |
| 4 | 0.6554 | 1078.6 | 1097.7 | 1097.3 | 0.584 | 3.602 | 81.027 | 13.321 | 1.320 | 0.045 | 0.088 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1355.86 | |
| 5 | 0.6554 | 1078.2 | 1097.3 | 1097.0 | 0.592 | 3.610 | 81.052 | 13.274 | 1.326 | 0.045 | 0.089 | 0.006 | 0.007 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1355.43 | |
| 6 | 0.6543 | 1077.6 | 1096.7 | 1096.4 | 0.596 | 3.541 | 81.255 | 13.163 | 1.303 | 0.045 | 0.086 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1355.75 | |
| 7 | 0.6537 | 1076.9 | 1096.0 | 1095.7 | 0.597 | 3.523 | 81.373 | 13.070 | 1.294 | 0.044 | 0.086 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1355.52 | |
| 8 | 0.6535 | 1076.1 | 1095.1 | 1094.8 | 0.599 | 3.548 | 81.430 | 12.981 | 1.297 | 0.045 | 0.088 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1354.72 | |
| 9 | 0.6539 | 1077.1 | 1096.2 | 1095.9 | 0.599 | 3.531 | 81.345 | 13.072 | 1.308 | 0.045 | 0.088 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1355.54 | |
| 10 | 0.6527 | 1075.6 | 1094.6 | 1094.3 | 0.604 | 3.502 | 81.567 | 12.903 | 1.280 | 0.045 | 0.086 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1354.86 | |
| 11 | 0.6569 | 1083.1 | 1102.3 | 1102.0 | 0.595 | 3.451 | 80.804 | 13.641 | 1.361 | 0.047 | 0.090 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1359.98 | |
| 12 | 0.6574 | 1084.1 | 1103.3 | 1103.1 | 0.587 | 3.446 | 80.715 | 13.724 | 1.378 | 0.047 | 0.091 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1360.78 | |
| 13 | 0.6566 | 1082.9 | 1102.1 | 1101.9 | 0.588 | 3.444 | 80.852 | 13.607 | 1.360 | 0.047 | 0.090 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1360.08 | |
| 14 | 0.6557 | 1081.3 | 1100.4 | 1100.2 | 0.595 | 3.444 | 81.031 | 13.444 | 1.337 | 0.046 | 0.089 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1359.01 | |
| 15 | 0.6545 | 1079.5 | 1098.6 | 1098.4 | 0.600 | 3.429 | 81.248 | 13.274 | 1.305 | 0.045 | 0.087 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1358.06 | |
| 16 | 0.6517 | 1074.5 | 1093.5 | 1093.3 | 0.606 | 3.464 | 81.762 | 12.773 | 1.254 | 0.044 | 0.084 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1354.62 | |
| 17 | 0.6510 | 1073.5 | 1092.5 | 1092.3 | 0.608 | 3.457 | 81.884 | 12.673 | 1.240 | 0.043 | 0.083 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1354.09 | |
| 18 | 0.6516 | 1074.7 | 1093.8 | 1093.5 | 0.616 | 3.428 | 81.782 | 12.789 | 1.247 | 0.043 | 0.083 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1354.98 | |
| 19 | 0.6528 | 1077.0 | 1096.1 | 1095.9 | 0.619 | 3.402 | 81.559 | 13.013 | 1.267 | 0.044 | 0.085 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1356.55 | |
| 20 | 0.6525 | 1076.5 | 1095.6 | 1095.4 | 0.611 | 3.413 | 81.611 | 12.959 | 1.265 | 0.044 | 0.085 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1356.30 | |
| 21 | 0.6510 | 1073.8 | 1092.8 | 1092.7 | 0.605 | 3.452 | 81.872 | 12.692 | 1.240 | 0.044 | 0.083 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1354.34 | |
| 22 | 0.6527 | 1076.9 | 1095.9 | 1095.8 | 0.611 | 3.410 | 81.575 | 12.998 | 1.265 | 0.044 | 0.084 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1356.51 | |
| 23 | 0.6521 | 1075.9 | 1094.9 | 1094.7 | 0.610 | 3.411 | 81.697 | 12.884 | 1.257 | 0.044 | 0.085 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1355.96 | |
| 24 | 0.6523 | 1076.7 | 1095.8 | 1095.5 | 0.612 | 3.386 | 81.649 | 12.954 | 1.259 | 0.044 | 0.085 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1356.67 | |
| 25 | 0.6560 | 1083.4 | 1102.6 | 1102.3 | 0.633 | 3.284 | 81.047 | 13.539 | 1.346 | 0.047 | 0.091 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1361.36 | |
| 26 | 0.6571 | 1085.3 | 1104.5 | 1104.2 | 0.598 | 3.332 | 80.769 | 13.801 | 1.351 | 0.047 | 0.090 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1362.53 | |
| 27 | 0.6571 | 1085.3 | 1104.5 | 1104.2 | 0.593 | 3.335 | 80.775 | 13.798 | 1.350 | 0.047 | 0.090 | 0.006 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1362.59 | |
| 28 | 0.6306 | 1046.9 | 1065.4 | 1065.1 | 0.457 | 3.388 | 85.533 | 9.603 | 0.917 | 0.034 | 0.061 | 0.004 | 0.004 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1341.44 | |
| 29 | 0.5936 | 990.5 | 1008.0 | 1007.7 | 0.224 | 3.703 | 92.169 | 3.481 | 0.373 | 0.020 | 0.026 | 0.002 | 0.002 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1308.22 | |
| 30 | 0.5723 | 962.6 | 979.6 | 979.4 | 0.108 | 3.570 | 96.003 | 0.296 | 0.015 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1295.01 | |
| 31 | 0.5722 | 962.6 | 979.7 | 979.4 | 0.108 | 3.568 | 96.005 | 0.295 | 0.015 | 0.008 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1295.05 | |
| Avg | 0.6462 | 1067.0 | 1086.1 | 1085.8 | 0.551 | 3.482 | 82.721 | 11.940 | 1.175 | 0.041 | 0.078 | 0.005 | 0.006 | 0.000 | 0.000 | 0.000 | 0.000 | 0.000 | 1350.94 | |

December-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 | |
|------------|------------|--------|--------|----------|---------|---------|----------------|------------|------------|
| 12/1/2022 | 12/2/2022 | 213 | 229 | 1077.7 | 5903 | 6,734 | 1140.7 | 1138.506 | 12/1/2022 |
| 12/2/2022 | 12/3/2022 | 0 | 0 | 0 | 8435 | 9,641 | 1143.2 | 1143.200 | 12/2/2022 |
| 12/3/2022 | 12/4/2022 | 0 | 0 | 0 | 6,899 | 7,870 | 1140.5 | 1140.500 | 12/3/2022 |
| 12/4/2022 | 12/5/2022 | 0 | 0 | 0 | 5,288 | 6,019 | 1137.9 | 1137.900 | 12/4/2022 |
| 12/5/2022 | 12/6/2022 | 0 | 0 | 0 | 6,661 | 7,575 | 1137.4 | 1137.400 | 12/5/2022 |
| 12/6/2022 | 12/7/2022 | 0 | 0 | 0 | 7,435 | 8,461 | 1137.9 | 1137.900 | 12/6/2022 |
| 12/7/2022 | 12/8/2022 | 0 | 0 | 0 | 7,732 | 8,820 | 1140.7 | 1140.700 | 12/7/2022 |
| 12/8/2022 | 12/9/2022 | 0 | 0 | 0 | 7,123 | 8,149 | 1144.3 | 1144.300 | 12/8/2022 |
| 12/9/2022 | 12/10/2022 | 0 | 0 | 0 | 6,842 | 7,799 | 1139.9 | 1139.900 | 12/9/2022 |
| 12/10/2022 | 12/11/2022 | 0 | 0 | 0 | 6,055 | 6,912 | 1142.1 | 1142.100 | 12/10/2022 |
| 12/11/2022 | 12/12/2022 | 0 | 0 | 0 | 5,489 | 6,248 | 1138.1 | 1138.100 | 12/11/2022 |
| 12/12/2022 | 12/13/2022 | 0 | 0 | 0 | 4,938 | 5,648 | 1143.8 | 1143.800 | 12/12/2022 |
| 12/13/2022 | 12/14/2022 | 0 | 0 | 0 | 5,099 | 5,854 | 1147.9 | 1147.900 | 12/13/2022 |
| 12/14/2022 | 12/15/2022 | 0 | 0 | 0 | 5,813 | 6,759 | 1162.7 | 1162.700 | 12/14/2022 |
| 12/15/2022 | 12/16/2022 | 1,930 | 2,102 | 1089.3 | 5,318 | 6,149 | 1156.3 | 1138.459 | 12/15/2022 |
| 12/16/2022 | 12/17/2022 | 2,049 | 2,226 | 1086.7 | 5,210 | 5,980 | 1148.3 | 1130.912 | 12/16/2022 |
| 12/17/2022 | 12/18/2022 | 2,019 | 2,200 | 1089.9 | 5,744 | 6,505 | 1132.3 | 1121.273 | 12/17/2022 |
| 12/18/2022 | 12/19/2022 | 2,039 | 2,226 | 1091.6 | 6,127 | 6,953 | 1135 | 1124.163 | 12/18/2022 |
| 12/19/2022 | 12/20/2022 | 2,052 | 2,235 | 1089.2 | 7,123 | 8,082 | 1134.4 | 1124.291 | 12/19/2022 |
| 12/20/2022 | 12/21/2022 | 1,994 | 2,169 | 1087.9 | 8,000 | 9,049 | 1131 | 1122.401 | 12/20/2022 |
| 12/21/2022 | 12/22/2022 | 2,054 | 2,237 | 1089.4 | 9,326 | 10,441 | 1119.9 | 1114.395 | 12/21/2022 |
| 12/22/2022 | 12/23/2022 | 2,009 | 2,174 | 1082.5 | 9,684 | 10,860 | 1121.7 | 1114.965 | 12/22/2022 |
| 12/23/2022 | 12/24/2022 | 3,324 | 3,583 | 1079 | 8,213 | 9,112 | 1109.5 | 1100.712 | 12/23/2022 |
| 12/24/2022 | 12/25/2022 | 2,056 | 2,220 | 1079.7 | 6,694 | 7,436 | 1110.6 | 1103.339 | 12/24/2022 |
| 12/25/2022 | 12/26/2022 | 2,052 | 2,218 | 1081.1 | 5,957 | 6,700 | 1124.5 | 1113.380 | 12/25/2022 |
| 12/26/2022 | 12/27/2022 | 2,014 | 2,162 | 1073.8 | 5,278 | 5,934 | 1125.1 | 1110.931 | 12/26/2022 |
| 12/27/2022 | 12/28/2022 | 2,057 | 2,222 | 1080.2 | 2,970 | 3,299 | 1111.4 | 1098.633 | 12/27/2022 |
| 12/28/2022 | 12/29/2022 | 2,738 | 2,969 | 1086.5 | 2,938 | 3,217 | 1090.9 | 1088.778 | 12/28/2022 |
| 12/29/2022 | 12/30/2022 | 2,068 | 2,254 | 1089.8 | 4,058 | 4,589 | 1131.4 | 1117.357 | 12/29/2022 |
| 12/30/2022 | 12/31/2022 | 2,074 | 2,264 | 1091.2 | 3,565 | 4,040 | 1133.6 | 1118.005 | 12/30/2022 |
| 12/31/2022 | 1/1/2023 | 2,039 | 2,216 | 1087 | 4,043 | 4,535 | 1121.9 | 1110.200 | 12/31/2022 |
| | | 36,781 | 39,906 | 630.0806 | 189,960 | 215,370 | 1133.3839 | 1127.3258 | |



Alliance Pipeline

DAILY ANALYSIS --- USA
ND07MD1 --- Hankinson Sales
December 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 | 1,142.177 | 0.6517 | 85.5670 | 9.0207 | 3.2285 | 0.3092 | 0.4902 | 0.0582 | 0.0474 | 0.0196 | 0.8795 | 0.3681 | 0.0114 |
| 2 | 1,142.634 | 0.6514 | 85.6182 | 9.0337 | 3.2335 | 0.3069 | 0.4803 | 0.0572 | 0.0475 | 0.0199 | 0.8244 | 0.3665 | 0.0117 |
| 3 | 1,141.150 | 0.6510 | 85.6273 | 9.0468 | 3.1652 | 0.3043 | 0.4838 | 0.0566 | 0.0456 | 0.0199 | 0.8543 | 0.3847 | 0.0115 |
| 4 | 1,143.149 | 0.6527 | 85.5151 | 8.9414 | 3.3087 | 0.3184 | 0.5100 | 0.0585 | 0.0461 | 0.0189 | 0.8776 | 0.3931 | 0.0122 |
| 5 | 1,143.758 | 0.6532 | 85.4157 | 9.0309 | 3.3204 | 0.3155 | 0.5097 | 0.0575 | 0.0443 | 0.0178 | 0.8835 | 0.3931 | 0.0117 |
| 6 | 1,142.776 | 0.6521 | 85.5458 | 9.0055 | 3.2626 | 0.3140 | 0.4991 | 0.0564 | 0.0453 | 0.0181 | 0.8548 | 0.3868 | 0.0116 |
| 7 | 1,142.124 | 0.6516 | 85.6183 | 8.9831 | 3.2375 | 0.3102 | 0.4912 | 0.0571 | 0.0455 | 0.0181 | 0.8434 | 0.3842 | 0.0114 |
| 8 | 1,143.988 | 0.6532 | 85.4119 | 9.0550 | 3.3128 | 0.3144 | 0.5074 | 0.0587 | 0.0465 | 0.0179 | 0.8749 | 0.3893 | 0.0113 |
| 9 | 1,143.263 | 0.6524 | 85.5091 | 9.0282 | 3.2688 | 0.3136 | 0.5020 | 0.0593 | 0.0470 | 0.0187 | 0.8570 | 0.3849 | 0.0113 |
| 10 | 1,144.519 | 0.6534 | 85.4181 | 9.0101 | 3.3749 | 0.3126 | 0.5026 | 0.0579 | 0.0451 | 0.0179 | 0.8519 | 0.3980 | 0.0110 |
| 11 | 1,147.084 | 0.6548 | 85.3000 | 8.9934 | 3.5083 | 0.3200 | 0.5088 | 0.0594 | 0.0474 | 0.0193 | 0.8473 | 0.3853 | 0.0108 |
| 12 | 1,147.453 | 0.6553 | 85.2489 | 8.9792 | 3.5434 | 0.3227 | 0.5108 | 0.0594 | 0.0477 | 0.0210 | 0.8619 | 0.3942 | 0.0109 |
| 13 | 1,145.650 | 0.6537 | 85.3816 | 9.0753 | 3.3715 | 0.3173 | 0.5066 | 0.0578 | 0.0458 | 0.0201 | 0.8176 | 0.3953 | 0.0110 |
| 14 | 1,146.141 | 0.6542 | 85.3375 | 9.0190 | 3.4682 | 0.3147 | 0.4957 | 0.0556 | 0.0460 | 0.0204 | 0.8405 | 0.3915 | 0.0109 |
| 15 | 1,143.848 | 0.6515 | 85.7283 | 8.8743 | 3.3623 | 0.3090 | 0.4726 | 0.0550 | 0.0451 | 0.0208 | 0.7439 | 0.3778 | 0.0109 |
| 16 | 1,142.060 | 0.6495 | 85.9971 | 8.8406 | 3.2356 | 0.3051 | 0.4559 | 0.0545 | 0.0449 | 0.0209 | 0.6495 | 0.3845 | 0.0114 |
| 17 | 1,143.454 | 0.6505 | 85.9196 | 8.8057 | 3.2992 | 0.3143 | 0.4771 | 0.0572 | 0.0470 | 0.0207 | 0.6672 | 0.3802 | 0.0116 |
| 18 | 1,149.716 | 0.6556 | 85.2628 | 9.0187 | 3.5603 | 0.3338 | 0.5357 | 0.0570 | 0.0457 | 0.0206 | 0.7756 | 0.3783 | 0.0115 |
| 19 | 1,148.653 | 0.6548 | 85.2854 | 9.0863 | 3.5058 | 0.3258 | 0.5083 | 0.0572 | 0.0458 | 0.0214 | 0.7867 | 0.3657 | 0.0116 |
| 20 | 1,145.462 | 0.6521 | 85.5984 | 9.0178 | 3.3728 | 0.3123 | 0.4765 | 0.0546 | 0.0438 | 0.0195 | 0.7429 | 0.3494 | 0.0119 |
| 21 | 1,146.359 | 0.6526 | 85.5641 | 9.0209 | 3.3780 | 0.3198 | 0.4975 | 0.0570 | 0.0439 | 0.0198 | 0.7388 | 0.3485 | 0.0116 |
| 22 | 1,145.808 | 0.6517 | 85.6322 | 9.0619 | 3.3436 | 0.3104 | 0.4746 | 0.0555 | 0.0447 | 0.0197 | 0.7078 | 0.3377 | 0.0118 |
| 23 | 1,138.664 | 0.6462 | 86.2648 | 9.0013 | 2.8935 | 0.2998 | 0.4533 | 0.0548 | 0.0447 | 0.0202 | 0.6064 | 0.3488 | 0.0125 |
| 24 | 1,141.270 | 0.6484 | 86.0057 | 9.1061 | 2.9606 | 0.3175 | 0.4834 | 0.0568 | 0.0455 | 0.0197 | 0.6339 | 0.3589 | 0.0119 |
| 25 | 1,141.650 | 0.6493 | 85.9200 | 9.0610 | 2.9952 | 0.3223 | 0.5005 | 0.0630 | 0.0495 | 0.0206 | 0.6916 | 0.3644 | 0.0119 |
| 26 | 1,139.152 | 0.6463 | 86.2848 | 8.9813 | 2.8855 | 0.3078 | 0.4615 | 0.0592 | 0.0487 | 0.0196 | 0.5998 | 0.3403 | 0.0116 |
| 27 | 1,140.431 | 0.6478 | 86.1166 | 9.0128 | 2.9450 | 0.3146 | 0.4844 | 0.0573 | 0.0469 | 0.0214 | 0.6330 | 0.3568 | 0.0113 |
| 28 | 1,138.179 | 0.6475 | 86.0599 | 9.0469 | 2.9103 | 0.3007 | 0.4630 | 0.0533 | 0.0457 | 0.0207 | 0.7169 | 0.3711 | 0.0114 |
| 29 | 1,138.744 | 0.6478 | 86.0106 | 9.0813 | 2.9166 | 0.3009 | 0.4724 | 0.0542 | 0.0438 | 0.0211 | 0.7194 | 0.3680 | 0.0117 |
| 30 | 1,137.775 | 0.6475 | 86.0346 | 9.0549 | 2.8918 | 0.2985 | 0.4736 | 0.0537 | 0.0427 | 0.0209 | 0.7461 | 0.3714 | 0.0118 |
| 31 | 1,140.154 | 0.6491 | 85.8420 | 9.1319 | 2.9649 | 0.3084 | 0.4940 | 0.0558 | 0.0443 | 0.0200 | 0.7687 | 0.3583 | 0.0116 |
| Volume | 1,143.157 | 0.6513 | 85.6723 | 9.0119 | 3.2305 | 0.3128 | 0.4902 | 0.0570 | 0.0459 | 0.0198 | 0.7739 | 0.3742 | 0.0115 |
| Weight Avg Energy | 1,143.166 | 0.6513 | 85.6715 | 9.0119 | 3.2311 | 0.3128 | 0.4902 | 0.0570 | 0.0459 | 0.0198 | 0.7740 | 0.3742 | 0.0115 |



Alliance Pipeline

DAILY ANALYSIS --- USA
 ND14MD1 --- Milnor Sales
 December 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 | 1,142.064 | 0.6516 | 85.5808 | 9.0097 | 3.2271 | 0.3090 | 0.4894 | 0.0582 | 0.0476 | 0.0197 | 0.8790 | 0.3681 | 0.0114 |
| 2 | 1,142.788 | 0.6515 | 85.5924 | 9.0569 | 3.2373 | 0.3062 | 0.4793 | 0.0569 | 0.0471 | 0.0198 | 0.8255 | 0.3668 | 0.0117 |
| 3 | 1,141.163 | 0.6511 | 85.6095 | 9.0581 | 3.1658 | 0.3038 | 0.4839 | 0.0567 | 0.0454 | 0.0198 | 0.8585 | 0.3869 | 0.0115 |
| 4 | 1,144.424 | 0.6535 | 85.4573 | 8.9423 | 3.3566 | 0.3249 | 0.5195 | 0.0595 | 0.0468 | 0.0197 | 0.8650 | 0.3967 | 0.0118 |
| 5 | 1,143.119 | 0.6528 | 85.4500 | 9.0278 | 3.2960 | 0.3125 | 0.5054 | 0.0568 | 0.0438 | 0.0173 | 0.8857 | 0.3929 | 0.0118 |
| 6 | 1,142.420 | 0.6518 | 85.5802 | 8.9931 | 3.2502 | 0.3122 | 0.4955 | 0.0564 | 0.0453 | 0.0182 | 0.8524 | 0.3848 | 0.0115 |
| 7 | 1,142.394 | 0.6518 | 85.5900 | 8.9946 | 3.2472 | 0.3111 | 0.4932 | 0.0573 | 0.0456 | 0.0180 | 0.8464 | 0.3851 | 0.0114 |
| 8 | 1,143.900 | 0.6531 | 85.4141 | 9.0518 | 3.3119 | 0.3141 | 0.5071 | 0.0586 | 0.0464 | 0.0178 | 0.8770 | 0.3899 | 0.0113 |
| 9 | 1,143.041 | 0.6523 | 85.5275 | 9.0214 | 3.2597 | 0.3130 | 0.5013 | 0.0591 | 0.0469 | 0.0187 | 0.8566 | 0.3846 | 0.0112 |
| 10 | 1,144.957 | 0.6537 | 85.3910 | 9.0095 | 3.4044 | 0.3122 | 0.5023 | 0.0581 | 0.0452 | 0.0176 | 0.8518 | 0.3969 | 0.0111 |
| 11 | 1,146.533 | 0.6546 | 85.3317 | 8.9619 | 3.4996 | 0.3196 | 0.5066 | 0.0590 | 0.0474 | 0.0196 | 0.8567 | 0.3872 | 0.0108 |
| 12 | 1,147.480 | 0.6553 | 85.2427 | 8.9879 | 3.5411 | 0.3226 | 0.5113 | 0.0593 | 0.0475 | 0.0209 | 0.8618 | 0.3941 | 0.0109 |
| 13 | 1,146.062 | 0.6540 | 85.3430 | 9.0751 | 3.4046 | 0.3171 | 0.5058 | 0.0576 | 0.0460 | 0.0202 | 0.8272 | 0.3924 | 0.0110 |
| 14 | 1,145.994 | 0.6541 | 85.3532 | 9.0044 | 3.4667 | 0.3146 | 0.4955 | 0.0556 | 0.0460 | 0.0205 | 0.8417 | 0.3910 | 0.0108 |
| 15 | 1,143.988 | 0.6515 | 85.7301 | 8.8749 | 3.3696 | 0.3088 | 0.4707 | 0.0549 | 0.0448 | 0.0210 | 0.7367 | 0.3775 | 0.0110 |
| 16 | 1,141.482 | 0.6489 | 86.0586 | 8.8321 | 3.1961 | 0.3047 | 0.4552 | 0.0545 | 0.0450 | 0.0206 | 0.6381 | 0.3837 | 0.0114 |
| 17 | 1,144.219 | 0.6511 | 85.8498 | 8.8232 | 3.3355 | 0.3162 | 0.4815 | 0.0576 | 0.0474 | 0.0208 | 0.6768 | 0.3795 | 0.0117 |
| 18 | 1,149.957 | 0.6558 | 85.2439 | 9.0104 | 3.5694 | 0.3373 | 0.5428 | 0.0569 | 0.0454 | 0.0208 | 0.7878 | 0.3737 | 0.0114 |
| 19 | 1,147.878 | 0.6543 | 85.3394 | 9.0850 | 3.4762 | 0.3212 | 0.4968 | 0.0568 | 0.0458 | 0.0213 | 0.7777 | 0.3679 | 0.0118 |
| 20 | 1,145.314 | 0.6519 | 85.6189 | 9.0206 | 3.3563 | 0.3128 | 0.4774 | 0.0545 | 0.0435 | 0.0193 | 0.7358 | 0.3492 | 0.0119 |
| 21 | 1,146.889 | 0.6529 | 85.5259 | 9.0207 | 3.4111 | 0.3203 | 0.4987 | 0.0572 | 0.0442 | 0.0199 | 0.7433 | 0.3471 | 0.0116 |
| 22 | 1,144.811 | 0.6510 | 85.7013 | 9.0603 | 3.2838 | 0.3086 | 0.4720 | 0.0555 | 0.0445 | 0.0197 | 0.7035 | 0.3389 | 0.0119 |
| 23 | 1,138.727 | 0.6462 | 86.2677 | 9.0065 | 2.8909 | 0.3003 | 0.4522 | 0.0547 | 0.0451 | 0.0204 | 0.6039 | 0.3456 | 0.0126 |
| 24 | 1,141.394 | 0.6485 | 85.9824 | 9.1145 | 2.9648 | 0.3181 | 0.4863 | 0.0570 | 0.0454 | 0.0193 | 0.6374 | 0.3630 | 0.0118 |
| 25 | 1,141.283 | 0.6490 | 85.9598 | 9.0393 | 2.9839 | 0.3216 | 0.4983 | 0.0629 | 0.0495 | 0.0205 | 0.6881 | 0.3641 | 0.0119 |
| 26 | 1,139.488 | 0.6465 | 86.2649 | 8.9998 | 2.8918 | 0.3082 | 0.4630 | 0.0588 | 0.0486 | 0.0197 | 0.5960 | 0.3376 | 0.0115 |
| 27 | 1,140.383 | 0.6479 | 86.0927 | 9.0273 | 2.9471 | 0.3132 | 0.4826 | 0.0571 | 0.0467 | 0.0215 | 0.6392 | 0.3613 | 0.0114 |
| 28 | 1,138.645 | 0.6477 | 86.0162 | 9.0763 | 2.9215 | 0.3014 | 0.4643 | 0.0536 | 0.0462 | 0.0208 | 0.7224 | 0.3661 | 0.0113 |
| 29 | 1,138.999 | 0.6479 | 85.9936 | 9.1024 | 2.9192 | 0.3009 | 0.4723 | 0.0539 | 0.0436 | 0.0212 | 0.7173 | 0.3639 | 0.0117 |
| 30 | 1,137.957 | 0.6476 | 86.0185 | 9.0767 | 2.8912 | 0.2980 | 0.4735 | 0.0536 | 0.0426 | 0.0209 | 0.7464 | 0.3668 | 0.0118 |
| 31 | 1,140.473 | 0.6492 | 85.8226 | 9.1371 | 2.9772 | 0.3098 | 0.4966 | 0.0558 | 0.0442 | 0.0197 | 0.7707 | 0.3547 | 0.0116 |
| Volume | 1,143.485 | 0.6515 | 85.6555 | 9.0185 | 3.2455 | 0.3132 | 0.4902 | 0.0569 | 0.0457 | 0.0198 | 0.7721 | 0.3711 | 0.0115 |
| Weight Avg Energy | 1,143.487 | 0.6515 | 85.6555 | 9.0185 | 3.2457 | 0.3132 | 0.4901 | 0.0569 | 0.0457 | 0.0198 | 0.7721 | 0.3710 | 0.0115 |

December-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 | | |
| 12/1/2022 | 12/2/2022 | 441 | 530 | 1202.3 | 1,000 | 1,133 | 1132.9 | 1154.139 | 12/1/2022 |
| 12/2/2022 | 12/3/2022 | 603 | 725 | 1202.3 | 1,365 | 1,546 | 1132.9 | 1154.164 | 12/2/2022 |
| 12/3/2022 | 12/4/2022 | 478 | 575 | 1202.3 | 1,076 | 1,219 | 1132.9 | 1154.247 | 12/3/2022 |
| 12/4/2022 | 12/5/2022 | 387 | 465 | 1202.3 | 866 | 981 | 1132.9 | 1154.335 | 12/4/2022 |
| 12/5/2022 | 12/6/2022 | 459 | 552 | 1202.3 | 1,015 | 1,150 | 1132.9 | 1154.511 | 12/5/2022 |
| 12/6/2022 | 12/7/2022 | 588 | 707 | 1202.3 | 1,240 | 1,404 | 1132.9 | 1155.223 | 12/6/2022 |
| 12/7/2022 | 12/8/2022 | 503 | 605 | 1202.3 | 1,148 | 1,301 | 1132.9 | 1154.044 | 12/7/2022 |
| 12/8/2022 | 12/9/2022 | 433 | 520 | 1202.3 | 1,075 | 1,218 | 1132.9 | 1152.827 | 12/8/2022 |
| 12/9/2022 | 12/10/2022 | 405 | 487 | 1202.3 | 921 | 1,043 | 1132.9 | 1154.097 | 12/9/2022 |
| 12/10/2022 | 12/11/2022 | 358 | 430 | 1202.3 | 835 | 946 | 1132.9 | 1153.726 | 12/10/2022 |
| 12/11/2022 | 12/12/2022 | 363 | 437 | 1202.3 | 887 | 1,005 | 1132.9 | 1153.054 | 12/11/2022 |
| 12/12/2022 | 12/13/2022 | 376 | 452 | 1202.3 | 921 | 1,043 | 1132.9 | 1153.019 | 12/12/2022 |
| 12/13/2022 | 12/14/2022 | 413 | 496 | 1202.3 | 870 | 985 | 1132.9 | 1155.240 | 12/13/2022 |
| 12/14/2022 | 12/15/2022 | 470 | 565 | 1202.3 | 964 | 1,092 | 1132.9 | 1155.646 | 12/14/2022 |
| 12/15/2022 | 12/16/2022 | 523 | 629 | 1202.3 | 1,082 | 1,226 | 1132.9 | 1155.514 | 12/15/2022 |
| 12/16/2022 | 12/17/2022 | 531 | 638 | 1202.3 | 1,141 | 1,292 | 1132.9 | 1154.940 | 12/16/2022 |
| 12/17/2022 | 12/18/2022 | 548 | 659 | 1202.3 | 1,201 | 1,361 | 1132.9 | 1154.645 | 12/17/2022 |
| 12/18/2022 | 12/19/2022 | 587 | 706 | 1202.3 | 1,319 | 1,494 | 1132.9 | 1154.273 | 12/18/2022 |
| 12/19/2022 | 12/20/2022 | 646 | 777 | 1202.3 | 1,337 | 1,514 | 1132.9 | 1155.508 | 12/19/2022 |
| 12/20/2022 | 12/21/2022 | 677 | 814 | 1202.3 | 1,355 | 1,535 | 1132.9 | 1156.022 | 12/20/2022 |
| 12/21/2022 | 12/22/2022 | 750 | 902 | 1202.3 | 1,509 | 1,709 | 1132.9 | 1155.941 | 12/21/2022 |
| 12/22/2022 | 12/23/2022 | 754 | 906 | 1202.3 | 1,500 | 1,699 | 1132.9 | 1156.115 | 12/22/2022 |
| 12/23/2022 | 12/24/2022 | 663 | 797 | 1202.3 | 1,320 | 1,495 | 1132.9 | 1156.103 | 12/23/2022 |
| 12/24/2022 | 12/25/2022 | 544 | 654 | 1202.3 | 1,156 | 1,310 | 1132.9 | 1155.108 | 12/24/2022 |
| 12/25/2022 | 12/26/2022 | 519 | 624 | 1202.3 | 1,046 | 1,185 | 1132.9 | 1155.915 | 12/25/2022 |
| 12/26/2022 | 12/27/2022 | 364 | 438 | 1202.3 | 823 | 932 | 1132.9 | 1154.182 | 12/26/2022 |
| 12/27/2022 | 12/28/2022 | 257 | 309 | 1202.3 | 632 | 716 | 1132.9 | 1152.963 | 12/27/2022 |
| 12/28/2022 | 12/29/2022 | 323 | 389 | 1202.3 | 740 | 838 | 1132.9 | 1153.988 | 12/28/2022 |
| 12/29/2022 | 12/30/2022 | 449 | 540 | 1202.3 | 914 | 1,035 | 1132.9 | 1155.762 | 12/29/2022 |
| 12/30/2022 | 12/31/2022 | 396 | 476 | 1202.3 | 809 | 917 | 1132.9 | 1155.707 | 12/30/2022 |
| 12/31/2022 | 1/1/2023 | 360 | 433 | 1202.3 | 785 | 889 | 1132.9 | 1154.720 | 12/31/2022 |
| | | 15,168 | 18,237 | 1202.3000 | 32,852 | 37,213 | 1132.9000 | 1154.6993 | |

| 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 | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/1/2022 | 12/2/2022 | 1087 | 0.6427 | -51.8 | 1355.892924 | 0.9727 | 2.4268 | 83.1368 | 12.5661 | 0.718 | 0.0175 | 0.033 | 0.0015 | 0.0011 | N/A | 0 | 0.1036 | 0.0231 | 6.8881 | 0.004 | 0.0004 | 0.4803 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/2/2022 | 12/3/2022 | 1093 | 0.6462 | -50.1 | 1359.679924 | 0.9343 | 2.482 | 82.2976 | 13.4246 | 0.6763 | 0.0154 | 0.0276 | 0.001 | 0.0005 | N/A | 0 | 0.1174 | 0.0235 | 6.8881 | 0.004 | 0.0003 | 0.4803 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/3/2022 | 12/4/2022 | 1092 | 0.6455 | -49.8 | 1359.1723 | 0.937 | 2.4548 | 82.5334 | 13.1378 | 0.7398 | 0.0189 | 0.035 | 0.0015 | 0.0012 | N/A | 0 | 0.1175 | 0.0232 | 6.8881 | 0.004 | 0.0004 | 0.4803 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/4/2022 | 12/5/2022 | 1096 | 0.6489 | -47.6 | 1360.572432 | 0.9666 | 2.4993 | 81.9552 | 13.6241 | 0.776 | 0.0212 | 0.037 | 0.0021 | 0.0016 | N/A | 0.0001 | 0.0936 | 0.0233 | 6.8881 | 0.004 | 0.0004 | 0.4803 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/5/2022 | 12/6/2022 | 1100 | 0.6508 | -46.4 | 1363.543235 | 0.9712 | 2.4224 | 81.6535 | 14.0139 | 0.8013 | 0.019 | 0.0344 | 0.0014 | 0.001 | N/A | 0 | 0.0588 | 0.023 | 6.8881 | 0.004 | 0.0004 | 0.4803 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/6/2022 | 12/7/2022 | 1106 | 0.6538 | -44.1 | 1367.831714 | 0.9421 | 2.3749 | 81.1761 | 14.5558 | 0.8384 | 0.0221 | 0.0409 | 0.0019 | 0.0016 | N/A | 0 | 0.0137 | 0.0227 | 6.8881 | 0.004 | 0.0004 | 0.4729 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/7/2022 | 12/8/2022 | 1104 | 0.6527 | -44.9 | 1366.508278 | 0.945 | 2.3904 | 81.3979 | 14.3376 | 0.826 | 0.0219 | 0.0406 | 0.0019 | 0.0018 | N/A | 0 | 0.014 | 0.0232 | 6.8881 | 0.004 | 0.0006 | 0.4542 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/8/2022 | 12/9/2022 | 1097 | 0.6478 | -48.3 | 1362.99557 | 0.9293 | 2.3726 | 81.9897 | 13.7863 | 0.7106 | 0.0171 | 0.0318 | 0.0016 | 0.0015 | N/A | 0 | 0.1371 | 0.0227 | 6.8881 | 0.004 | 0.0006 | 0.3187 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/9/2022 | 12/10/2022 | 1092 | 0.6451 | -50.3 | 1359.593618 | 0.9296 | 2.4135 | 82.3439 | 13.4005 | 0.6466 | 0.0159 | 0.0301 | 0.0015 | 0.0015 | N/A | 0 | 0.1944 | 0.0226 | 6.8881 | 0.004 | 0.0006 | 0.2794 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/10/2022 | 12/11/2022 | 1092 | 0.6449 | -50.3 | 1359.804424 | 0.9345 | 2.3998 | 82.4964 | 13.2472 | 0.6835 | 0.0167 | 0.0305 | 0.0013 | 0.0011 | N/A | 0 | 0.1661 | 0.023 | 6.8881 | 0.004 | 0.0006 | 0.2257 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/11/2022 | 12/12/2022 | 1094 | 0.6459 | -48.8 | 1361.239929 | 0.9456 | 2.3547 | 82.4629 | 13.3189 | 0.7079 | 0.0244 | 0.0386 | 0.0031 | 0.0024 | N/A | 0.0006 | 0.1178 | 0.0231 | 6.8881 | 0.004 | 0.0006 | 0.2314 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/12/2022 | 12/13/2022 | 1089 | 0.643 | -52 | 1358.970743 | 0.9424 | 2.3958 | 82.8236 | 12.9537 | 0.6439 | 0.0152 | 0.0264 | 0.0005 | 0.0003 | N/A | 0 | 0.1759 | 0.0225 | 6.8881 | 0.004 | 0.0007 | 0.2855 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/13/2022 | 12/14/2022 | 1090 | 0.6443 | -51.8 | 1357.945788 | 0.9535 | 2.4522 | 82.5953 | 13.195 | 0.6595 | 0.0132 | 0.0227 | 0.0001 | 0 | N/A | 0 | 0.1293 | 0.0234 | 6.8881 | 0.004 | 0.0006 | 0.3729 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/14/2022 | 12/15/2022 | 1089 | 0.6425 | -52.7 | 1358.599072 | 0.9285 | 2.3696 | 82.8668 | 13.008 | 0.5996 | 0.0131 | 0.0223 | 0 | 0 | N/A | 0 | 0.1695 | 0.0227 | 6.8881 | 0.004 | 0.0007 | 0.4146 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/15/2022 | 12/16/2022 | 1090 | 0.6403 | -53.1 | 1362.180776 | 0.8801 | 2.1946 | 83.1715 | 12.8501 | 0.6123 | 0.0136 | 0.0221 | 0.0002 | 0.0001 | N/A | 0 | 0.2341 | 0.0214 | 6.8881 | 0.004 | 0.0008 | 0.4633 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/16/2022 | 12/17/2022 | 1087 | 0.6365 | -54.8 | 1362.480664 | 0.8507 | 2.016 | 83.9535 | 12.241 | 0.6316 | 0.0143 | 0.0222 | 0 | 0 | N/A | 0 | 0.2502 | 0.0205 | 6.8881 | 0.004 | 0.0006 | 0.3846 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/17/2022 | 12/18/2022 | 1090 | 0.6382 | -54.4 | 1364.420067 | 0.8661 | 2.0011 | 83.6513 | 12.6751 | 0.5626 | 0.0117 | 0.0189 | 0 | 0 | N/A | 0 | 0.1937 | 0.0195 | 6.8881 | 0.004 | 0.0005 | 0.2981 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/18/2022 | 12/19/2022 | 1091 | 0.6406 | -52.9 | 1363.111191 | 0.8816 | 2.1078 | 83.2474 | 12.933 | 0.6025 | 0.0135 | 0.0231 | 0.0001 | 0 | N/A | 0 | 0.1704 | 0.0208 | 6.8881 | 0.004 | 0.0005 | 0.2577 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/19/2022 | 12/20/2022 | 1089 | 0.6373 | -54.7 | 1364.130504 | 0.862 | 1.9868 | 83.9306 | 12.4124 | 0.586 | 0.0143 | 0.0248 | 0.0002 | 0.0002 | N/A | 0 | 0.1631 | 0.0197 | 8.0059 | 0.004 | 0.0006 | 0.3626 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/20/2022 | 12/21/2022 | 1088 | 0.6363 | -55.7 | 1363.948378 | 0.8484 | 1.9509 | 84.209 | 12.2768 | 0.5535 | 0.0132 | 0.0224 | 0.0001 | 0 | N/A | 0 | 0.1057 | 0.0201 | 8.1642 | 0.004 | 0.0005 | 0.4919 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/21/2022 | 12/22/2022 | 1089 | 0.6352 | -55.1 | 1366.383582 | 0.8283 | 1.8204 | 84.5346 | 11.991 | 0.6438 | 0.019 | 0.0281 | 0.0004 | 0.0002 | N/A | 0 | 0.1152 | 0.019 | 8.1642 | 0.004 | 0.0004 | 0.4919 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/22/2022 | 12/23/2022 | 1082 | 0.6269 | -60.7 | 1366.558179 | 0.7639 | 1.5518 | 86.0084 | 10.9865 | 0.5043 | 0.0139 | 0.0224 | 0.0004 | 0.0002 | N/A | 0 | 0.1311 | 0.0172 | 8.1642 | 0.004 | 0.0004 | 0.4919 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/23/2022 | 12/24/2022 | 1079 | 0.6221 | -62.9 | 1368.016527 | 0.7253 | 1.3591 | 86.9791 | 10.2374 | 0.4874 | 0.0181 | 0.0313 | 0.002 | 0.0015 | N/A | 0.0001 | 0.1423 | 0.0165 | 8.1642 | 0.004 | 0.0005 | 0.4919 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/24/2022 | 12/25/2022 | 1080 | 0.624 | -56.9 | 1367.198146 | 0.7447 | 1.4224 | 86.928 | 9.9915 | 0.6523 | 0.0375 | 0.0603 | 0.0069 | 0.0057 | N/A | 0.0016 | 0.1324 | 0.0167 | 8.1642 | 0.004 | 0.0005 | 0.4807 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/25/2022 | 12/26/2022 | 1080 | 0.6235 | -54.1 | 1367.746231 | 0.7413 | 1.4086 | 87.2868 | 9.5857 | 0.7491 | 0.0486 | 0.0696 | 0.0091 | 0.0074 | N/A | 0.0025 | 0.0752 | 0.0167 | 8.1642 | 0.004 | 0.0006 | 0.4807 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/26/2022 | 12/27/2022 | 1074 | 0.6198 | -64.8 | 1364.201414 | 0.7335 | 1.4035 | 87.4826 | 8.6564 | 0.5209 | 0.017 | 0.0365 | 0.0015 | 0.0009 | N/A | 0 | 0.1303 | 0.0168 | 8.1642 | 0.004 | 0.0006 | 0.4807 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/27/2022 | 12/28/2022 | 1080 | 0.6258 | -60.6 | 1365.230481 | 0.7751 | 1.5652 | 86.3279 | 10.561 | 0.5635 | 0.019 | 0.0281 | 0.0022 | 0.0016 | N/A | 0.0002 | 0.1388 | 0.0174 | 8.1642 | 0.004 | 0.0007 | 0.4313 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/28/2022 | 12/29/2022 | 1087 | 0.6361 | -54.7 | 1362.908959 | 0.8544 | 1.9819 | 84.5595 | 11.7786 | 0.7103 | 0.0187 | 0.0294 | 0.0017 | 0.001 | N/A | 0 | 0.0444 | 0.0203 | 8.1642 | 0.004 | 0.0007 | 0.4237 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/29/2022 | 12/30/2022 | 1090 | 0.6423 | -51.7 | 1360.058337 | 0.9237 | 2.2942 | 83.3579 | 12.6365 | 0.6903 | 0.0213 | 0.0351 | 0.0024 | 0.0019 | N/A | 0 | 0.0138 | 0.0229 | 8.1642 | 0.004 | 0.0006 | 0.4474 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/30/2022 | 12/31/2022 | 1090 | 0.645 | -51.1 | 1357.208718 | 0.9467 | 2.4725 | 82.7319 | 13.124 | 0.6334 | 0.0188 | 0.0303 | 0.0023 | 0.0018 | N/A | 0 | 0.0145 | 0.024 | 8.1642 | 0.004 | 0.0006 | 0.4053 |
| NBPL | 11/30/2022 0:00 | 1/2/2023 0:00 | GLNU1 - GLEN ULLIN | 12/31/2022 | 1/1/2023 | 1086 | 0.6434 | -52.6 | 1353.908444 | 0.967 | 2.534 | 82.9551 | 12.8151 | 0.6051 | 0.016 | 0.0288 | 0.0016 | 0.0011 | N/A | 0 | 0.0523 | 0.0242 | 8.1642 | 0.004 | 0.0007 | 0.385 |

| 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 | DEC22 | NOV22 | OCT22 | SEP22 | AUG22 | JUL22 | JUN22 | MAY22 | APR22 | MAR22 | FEB22 | JAN22 | ZONE |
|-------|------|--|------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|-------|------|
| MT/ND | 211 | Sidney Border - MonDak Tfr - Sidney Plt | 1196 | 1206 | 1202 | 1201 | 1198 | 1205 | 1200 | 1198 | 1185 | 1191 | 1196 | 1196 | 1171 | 211 |
| ND | 24 | Williston Border - Charbonneau Station | 1187 | 1193 | 1198 | 1194 | 1188 | 1192 | 1195 | 1187 | 1185 | 1188 | 1189 | 1180 | 1155 | 24 |
| ND | 25 | Watford City West Border | 1202 | 1202 | 1207 | 1210 | 1209 | 1210 | 1201 | 1199 | 1195 | 1200 | 1197 | 1200 | 1198 | 25 |
| ND | 28 | Bismarck Station - Glen Ullin Station | 1158 | 1133 | 1126 | 1175 | 1191 | 1198 | 1202 | 1204 | 1196 | 1087 | 1131 | 1131 | 1126 | 28 |
| ND | 31 | Dickinson Brd - Belfield Trf - G Ullin Stn | 1113 | 1140 | 1131 | 1097 | 1099 | 1087 | 1094 | 1105 | 1100 | 1108 | 1130 | 1132 | 1132 | 31 |
| ND/MT | 32 | Cabin Creek Station - Belfied Transfer | 1125 | 1139 | 1132 | 1122 | 1128 | 1129 | 1115 | 1124 | 1138 | 1126 | 1095 | 1122 | 1127 | 32 |
| ND | 33 | Little Knife Plant | 1176 | 1176 | 1176 | 1179 | 1173 | 1174 | 1177 | 1175 | 1175 | 1176 | 1178 | 1176 | 1173 | 33 |
| ND | 34 | Badlands Plant/Bowman Border | 1048 | 1086 | 1077 | 989 | 1056 | 1031 | 1033 | 1014 | 1019 | 1021 | 1070 | 1087 | 1097 | 34 |
| ND | 43 | Watford City East Border | 1064 | 1133 | 1054 | 1050 | 1051 | 1057 | 1062 | 1044 | 1036 | 1042 | 1042 | 1108 | 1094 | 43 |
| ND/MT | 241 | Fairview Border | 1196 | 1201 | 1210 | 1205 | 1193 | 1197 | 1199 | 1186 | 1178 | 1191 | 1191 | 1197 | 1200 | 241 |
| ND | 267 | North Tioga Transfer - Nesson Plant | 1170 | 1176 | 1176 | 1178 | 1174 | 1184 | 1184 | 1173 | 1172 | 1176 | 1172 | 1157 | 1122 | 267 |
| ND | 261 | Tioga Comp Station - Robinson Lake Plan | 1188 | 1176 | 1182 | 1194 | 1196 | 1196 | 1201 | 1200 | 1200 | 1191 | 1191 | 1155 | 1175 | 261 |
| ND | 262 | Minot Bdr - Palermo Bdr - Bismarck Stn | 1195 | 1189 | 1186 | 1195 | 1198 | 1196 | 1203 | 1205 | 1202 | 1202 | 1194 | 1187 | 1180 | 262 |
| ND | 263 | Lignite Plant | 1131 | 1131 | 1131 | 1131 | 1131 | 1130 | 1131 | 1131 | 1131 | 1131 | 1131 | 1131 | 1131 | 263 |
| ND | 264 | Epping Border | 1186 | 1198 | 1194 | 1198 | 1196 | 1192 | 1188 | 1182 | 1188 | 1188 | 1185 | 1173 | 1145 | 264 |
| ND | 265 | Tioga Comp Station - County Line Plant | 1171 | 1169 | 1182 | 1180 | 1178 | 1178 | 1180 | 1176 | 1163 | 1170 | 1167 | 1150 | 1157 | 265 |
| ND | 266 | County Line Plant | 1175 | 1168 | 1181 | 1180 | 1180 | 1182 | 1179 | 1179 | 1167 | 1173 | 1172 | 1166 | 1175 | 266 |
| ND | 271 | Bismarck Station - Cleveland Station | 1186 | 1176 | 1181 | 1197 | 1191 | 1198 | 1202 | 1205 | 1205 | 1164 | 1185 | 1169 | 1162 | 271 |
| ND | 272 | Cleveland Station - Mapleton | 1187 | 1176 | 1181 | 1197 | 1191 | 1198 | 1202 | 1205 | 1204 | 1175 | 1184 | 1167 | 1161 | 272 |
| ND | 273 | Cleveland Station - Grafton Border | 1185 | 1176 | 1181 | 1198 | 1194 | 1198 | 1200 | 1205 | 1202 | 1168 | 1176 | 1166 | 1161 | 273 |
| ND | 550 | Mandan Border / NBPL-St Anthony | 1149 | 1127 | 1107 | 1173 | 1189 | 1194 | 1182 | 1201 | 1189 | 1087 | 1103 | 1119 | 1116 | 550 |
| ND | 610 | MDU-Watford City BTU | 1098 | 1155 | 1102 | 1113 | 1072 | 1068 | 1065 | 1063 | 1086 | 1093 | 1087 | 1138 | 1129 | 610 |
| ND | 802 | NBPL - Linton | 1082 | 1090 | 1087 | 1084 | 1081 | 1083 | 1086 | 1084 | 1074 | 1067 | 1073 | 1088 | 1091 | 802 |
| ND | 903 | Hettinger Propane | 2549 | 2549 | 2549 | 2549 | 2549 | 2549 | 2549 | 2549 | 2549 | 2549 | 2549 | 2549 | 2549 | 903 |
| ND | 600 | Alliance Pipeline - Hankinson | 1154 | 1143 | 1149 | 1159 | 1159 | 1157 | 1160 | 1153 | 1151 | 1155 | 1157 | 1152 | 1149 | 600 |
| ND | 601 | Alliance Pipeline - Milnor | 1154 | 1143 | 1149 | 1159 | 1160 | 1157 | 1160 | 1153 | 1151 | 1154 | 1157 | 1152 | 1149 | 602 |

| THERMAL ZONE VARIANCE DOCUMENTATION | | |
|--|--------------------------------|----------------------|
| December 2022 | | |
| <i>ZONE</i> | <i>BTU VARIANCE</i> | <i>REASON</i> |
| 43 | 79 | Blend |
| 550 | 20 | Blend |
| 610 | 53 | Directional |