



MONTANA-DAKOTA

UTILITIES CO.

A Division of MDU Resources Group, Inc.

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

February 8, 2010

RECEIVED

FEB 09 2010

PUBLIC SERVICE COMMISSION

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

Re: Case No. 11,006 (Therm Billing)
Monthly Report – December 2009

Montana-Dakota Utilities Co., a Division of MDU Resources Group, Inc., herewith submits the following information, pursuant to the Ordering paragraphs one and two of the Order issued in the above-referenced docket, dated October 20, 1987:

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 2010.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our supplier for the month of December 2009. There is a report for each of the 16 thermal zones for the month.
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.

Please acknowledge receipt by stamping or initialing the duplicate copy of this letter attached hereto and returning the same in the enclosed self-addressed, stamped envelope. Should the Commission or its Staff have any comments or questions with respect to these reports, please call me.

Sincerely,

Tamie Aberle
Pricing & Tariff Manager

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
JAN 2010

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
12	314	APPLE VALLEY	271	1.0884
12	327	BISMARCK	28	.9823
12	343	CARRINGTON	273	1.0884
12	344	CLEVELAND	272	1.0807
12	364	CAVALIER	273	1.1113
12	365	DAWSON	271	1.0807
12	374	FT TOTTEN	273	1.0961
12	375	DEVILS LAKE	273	1.0961
12	379	BARLOW	273	1.0884
12	387	ELDRIDGE	272	1.0884
12	411	GLEN ULLIN	31	.9624
12	417	GRAFTON	273	1.1190
12	439	HANKINSON	600	1.0630
12	449	JAMESTOWN	272	1.0961
12	463	LANGDON	273	1.0884
12	475	LINTON	802	.9717
12	478	LINCOLN	28	.9823
12	494	MEDINA	271	1.0807
12	498	MANDAN	28	.9823
12	524	NEW SALEM	28	.9615
12	532	NEW ROCKFORD	273	1.0884
12	539	PARK RIVER	273	1.1113
12	574	SANBORN	272	1.0961
12	593	STEELE	271	1.0807
12	598	SHEYENNE	273	1.0961
12	610	TAPPEN	271	1.0807
12	625	VALLEY CITY	272	1.1036
12	629	WALHALLA	273	1.1113
12	647	WILTON	262	1.0985
12	717	SPIRITWOOD	272	1.0961
12	718	FAIRMOUNT	600	1.0609
12	732	MSR SITE	273	1.0884
12	733	PAR SITE	273	1.0884
15	303	ALEXANDER	25	1.0682
15	308	ARNEGARD	25	1.0682

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
JAN 2010

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	318	BEACH	32	.9398
15	319	BELFIELD	32	.9467
15	323	BERTHOLD	262	1.0985
15	330	BOWMAN	34	1.0549
15	337	BURLINGTON	262	1.1222
15	368	DES LACS	262	1.1064
15	369	DICKINSON	31	.9555
15	384	EPPING	264	1.1079
15	407	GLADSTONE	31	.9555
15	413	GOLVA	32	.9261
15	416	GARRISON	262	1.1064
15	429	HEBRON	31	.9624
15	459	KILLDEER	33	1.0937
15	469	LEFOR	31	.9555
15	474	LIGNITE	263	1.0369
15	500	MARMARTH	34	1.0627
15	505	MINOT	262	1.1222
15	510	MOTT	31	.9555
15	512	MAX	262	1.0985
15	522	NEW ENGLAND	31	.9486
15	540	PALERMO	262	1.0985
15	558	RAY	264	1.1079
15	561	REGENT	31	.9555
15	563	RHAME	34	1.0472
15	564	RICHARDTON	31	.9486
15	568	ROSS	261	1.0709
15	572	RUTHVILLE	262	1.1222
15	583	SENTINEL BUTTE	32	.9398
15	588	SOUTH HEART	31	.9486
15	590	SPRINGBROOK	264	1.1079
15	591	STANLEY	261	1.0786
15	605	SURREY	262	1.1222
15	611	TAYLOR	31	.9486
15	616	TIOGA	261	1.0709
15	619	TURTLE LAKE	262	1.1064

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
JAN 2010

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	620	TRENTON	24	1.1159
15	624	UNDERWOOD	262	1.1064
15	632	WATFORD CITY	25	1.0682
15	636	WHEELLOCK	264	1.0999
15	637	WHITE EARTH	261	1.0786
15	642	WILLISTON	24	1.1159
15	646	WASHBURN	262	1.1143
15	664	RIVERDALE	262	1.1064
15	691	FAIRVIEW	24	1.1159
15	712	MINOT AFB	262	1.1222
15	743	BAKER FIELD	35	.8971

* * * E N D O F R E P O R T * * *

GQ Source Daily Summary

December 2009

Number: 251

Pressure Base: 14.730

Contract Day: 1

Name: SIDNEY AREA

Temperature Base:

Contract Hour: 9

Day	Heating Value		CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
	Wet	Dry																
1	0.7073	1173.9	1194.7	1194.4	0.198	3.258	71.293	22.524	2.620	0.041	0.060	0.002	0.001	0.000	0.000	0.000	0.000	1420.63
2	0.7009	1169.9	1190.7	1190.4	0.033	3.150	71.993	22.517	2.247	0.026	0.032	0.001	0.000	0.000	0.000	0.000	0.000	1422.17
3	0.6800	1129.9	1149.9	1149.6	0.053	3.586	76.029	18.251	2.000	0.033	0.045	0.002	0.000	0.000	0.000	0.000	0.000	1393.69
4	0.6881	1144.3	1164.6	1164.3	0.049	3.480	74.886	19.084	2.330	0.059	0.100	0.005	0.001	0.000	0.000	0.000	0.000	1403.74
5	0.6962	1160.5	1181.1	1180.8	0.036	3.273	72.958	21.420	2.246	0.030	0.036	0.001	0.000	0.000	0.000	0.000	0.000	1415.48
6	0.6791	1127.2	1146.9	1146.9	0.051	3.671	76.223	17.936	2.042	0.034	0.041	0.001	0.000	0.000	0.000	0.000	0.000	1392.05
7	0.6571	1086.5	1105.8	1105.5	0.070	4.058	80.119	14.176	1.511	0.029	0.036	0.001	0.000	0.000	0.000	0.000	0.000	1364.03
8	0.6600	1092.6	1112.0	1111.6	0.065	3.967	79.332	15.229	1.375	0.015	0.016	0.000	0.000	0.000	0.000	0.000	0.000	1368.65
9	0.6680	1107.2	1126.8	1126.4	0.060	3.833	77.893	16.634	1.547	0.016	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1378.66
10	0.6610	1095.3	1114.7	1114.3	0.064	3.898	79.074	15.619	1.315	0.014	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1371.07
11	0.6694	1110.5	1130.2	1129.7	0.055	3.779	77.605	16.980	1.543	0.019	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1381.25
12	0.6589	1090.0	1109.3	1108.9	0.067	4.018	79.608	14.849	1.424	0.017	0.017	0.000	0.000	0.000	0.000	0.000	0.000	1366.57
13	0.6572	1086.6	1105.9	1105.5	0.071	4.057	80.066	14.239	1.531	0.017	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1364.11
14	0.6611	1094.8	1114.2	1113.9	0.064	3.935	79.193	15.324	1.449	0.016	0.018	0.000	0.000	0.000	0.000	0.000	0.000	1370.32
15	0.6596	1091.2	1110.5	1110.2	0.066	4.009	79.582	14.776	1.526	0.021	0.019	0.000	0.000	0.000	0.000	0.000	0.000	1367.38
16	0.6573	1163.8	1184.4	1184.0	0.031	3.189	72.495	22.198	2.032	0.024	0.030	0.000	0.000	0.000	0.000	0.000	0.000	1418.33
17	0.6994	1167.4	1187.6	1187.6	0.032	3.167	72.042	22.709	1.990	0.025	0.034	0.001	0.000	0.000	0.000	0.000	0.000	1420.60
18	0.6947	1161.1	1181.7	1181.3	0.030	3.112	72.825	22.151	1.830	0.022	0.028	0.001	0.001	0.000	0.000	0.000	0.000	1417.74
19	0.6797	1132.2	1152.2	1151.8	0.048	3.437	75.817	18.861	1.783	0.024	0.028	0.001	0.000	0.000	0.000	0.000	0.000	1397.50
20	0.6822	1137.0	1157.1	1156.7	0.046	3.381	75.351	19.349	1.820	0.022	0.029	0.001	0.000	0.000	0.000	0.000	0.000	1400.74
21	0.6994	1169.3	1190.0	1189.6	0.029	3.052	72.378	22.169	2.313	0.030	0.028	0.001	0.000	0.000	0.000	0.000	0.000	1422.96
22	0.6963	1163.9	1184.5	1184.1	0.031	3.090	72.619	22.266	1.939	0.024	0.028	0.001	0.000	0.000	0.000	0.000	0.000	1419.48
23	0.6821	1141.0	1161.2	1160.8	0.034	3.156	74.181	21.925	0.690	0.007	0.007	0.000	0.000	0.000	0.000	0.000	0.000	1405.94
24	0.6752	1130.0	1150.0	1149.6	0.034	3.179	74.883	21.905	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1399.51
25	0.6752	1130.0	1150.0	1149.6	0.034	3.179	74.883	21.905	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1399.51
26	0.6752	1130.0	1150.0	1149.6	0.034	3.179	74.883	21.905	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1399.51
27	0.6752	1130.0	1150.0	1149.6	0.034	3.179	74.883	21.905	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1399.51
28	0.6944	1161.6	1182.1	1181.7	0.035	3.045	72.880	22.203	1.772	0.031	0.033	0.000	0.000	0.000	0.000	0.000	0.000	1418.61
29	0.6984	1166.5	1187.2	1186.7	0.031	3.125	72.292	22.457	2.045	0.023	0.026	0.001	0.000	0.000	0.000	0.000	0.000	1420.57
30	0.6914	1154.0	1174.4	1174.0	0.040	3.222	73.448	21.455	1.791	0.019	0.022	0.001	0.001	0.000	0.000	0.000	0.000	1412.34
31	0.6529	1079.5	1098.6	1098.3	0.068	4.094	80.510	14.178	1.122	0.012	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1359.54
Avg	0.6798	1132.0	1151.6	1151.2	0.051	3.476	75.556	19.326	1.543	0.021	0.026	0.001	0.000	0.000	0.000	0.000	0.000	1396.52

Zone 2/1

GQ Source Analysis

GQ Source Number:	0602330	Specific Gravity:	0.7063
GQ Source Name:	WILLISTON BORDER	BTU Base:	Dry
Effective Date:	12/1/2009 9:00:00 AM	Measured Heat Value:	1176.05
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	1173.27
Pressure Base:	14.730	Wet Heat Value:	1152.85
Viscosity:		As Deliv. Heat Value:	1173.27

		<u>Mol %</u>	<u>GPM</u>		<u>Mol %</u>
C1	Methane	72.145		CO2	0.593
C2	Ethane	20.193	0.000	N2	3.813
C3	Propane	3.044	0.836	O2	0.000
IC4	Iso-Butane	0.073	0.024	HE	Helium
NC4	N-Butane	0.123	0.039	H2	Hydrogen
IC5	Iso-Pentane	0.008	0.003	H2S	Hydrogen Sulfide
NC5	N-Pentane	0.007	0.003	AR	Argon
C6	Hexane	0.000	0.000	CO	Carbon Monoxide
C7	Heptane			H2O	Water
C8	Octane				
C9	Nonane				
C10	Decane				

Totals	99.999%	0.904 GPM
---------------	---------	-----------

Sample Date: 12/31/2009 9:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Remarks:

Zone 24, 264

GQ Source Analysis

GQ Source Number:	0602230	Specific Gravity:	0.7280
GQ Source Name:	WATFORD CITY BORDER	BTU Base:	Dry
Effective Date:	12/1/2009 9:00:00 AM	Measured Heat Value:	1133.42
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	1130.75
Pressure Base:	14.730	Wet Heat Value:	1111.07
Viscosity:		As Deliv. Heat Value:	1130.75

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	68.726		CO2	Carbon Dioxide	0.703
C2	Ethane	17.911	4.776	N2	Nitrogen	8.242
C3	Propane	3.800	1.044	O2	Oxygen	0.000
IC4	Iso-Butane	0.196	0.064	HE	Helium	
NC4	N-Butane	0.359	0.113	H2	Hydrogen	
IC5	Iso-Pentane	0.028	0.010	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.027	0.010	AR	Argon	
C6	Hexane	0.007	0.003	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane					
C9	Nonane					
C10	Decane					

Totals 99.998% 6.020 GPM

Sample Date: 12/31/2009 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Remarks:

GQ Source Daily Summary

December 2009

Number: 163 **Pressure Base:** 14.730 **Contract Day:** 1

Name: NORTH TIOGA-MINOT **Temperature Base:** **Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	NZ	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6718	1112.6	1132.4	0.371	3.393	77.615	16.991	1.522	0.036	0.060	0.001	0.000	0.010	0.010						1381.49
2	0.6866	1127.5	1147.5	0.529	3.635	75.478	18.005	2.196	0.053	0.090	0.003	0.002	0.008	0.008						1384.79
3	0.6841	1127.3	1147.2	0.448	3.536	75.827	17.966	2.040	0.058	0.108	0.006	0.005	0.006	0.006						1387.02
4	0.6825	1128.4	1148.3	0.352	3.465	76.018	17.977	2.022	0.055	0.096	0.003	0.002	0.009	0.009						1390.00
5	0.6772	1121.5	1141.3	0.344	3.398	76.821	17.507	1.789	0.047	0.082	0.002	0.002	0.007	0.007						1386.91
6	0.6782	1119.1	1138.9	0.388	3.570	76.779	17.199	1.904	0.054	0.094	0.003	0.003	0.006	0.006						1382.97
7	0.6830	1126.3	1146.2	0.393	3.577	75.779	18.175	1.946	0.047	0.075	0.002	0.002	0.004	0.004						1386.94
8	0.6781	1117.1	1136.9	0.394	3.672	76.690	17.256	1.853	0.048	0.080	0.002	0.001	0.003	0.003						1380.64
9	0.6754	1114.1	1133.8	0.376	3.631	76.999	17.221	1.660	0.040	0.066	0.002	0.001	0.004	0.004						1379.63
10	0.6774	1119.0	1138.9	0.363	3.538	76.701	17.538	1.721	0.047	0.083	0.003	0.002	0.005	0.005						1383.72
11	0.6796	1124.5	1144.4	0.315	3.482	76.470	17.672	1.885	0.058	0.105	0.003	0.003	0.008	0.008						1388.20
12	0.6801	1124.7	1144.6	0.361	3.448	76.394	17.726	1.908	0.055	0.099	0.003	0.002	0.004	0.004						1387.95
13	0.6785	1119.6	1139.5	0.373	3.587	76.523	17.594	1.804	0.044	0.070	0.002	0.001	0.003	0.003						1383.36
14	0.6768	1115.7	1135.4	0.364	3.684	76.884	17.102	1.844	0.044	0.072	0.002	0.001	0.003	0.003						1380.16
15	0.6780	1118.6	1138.5	0.359	3.622	76.735	17.252	1.893	0.049	0.081	0.002	0.001	0.006	0.006						1382.62
16	0.6776	1118.5	1138.4	0.340	3.615	76.898	17.077	1.902	0.053	0.094	0.003	0.002	0.016	0.016						1382.95
17	0.6697	1110.0	1129.7	0.285	3.481	77.956	16.684	1.462	0.041	0.075	0.002	0.002	0.012	0.012						1380.44
18	0.6778	1121.4	1141.3	0.374	3.411	76.880	17.325	1.806	0.062	0.122	0.007	0.007	0.008	0.008						1386.27
19	0.6825	1126.9	1146.9	0.372	3.517	75.856	18.238	1.863	0.051	0.090	0.003	0.003	0.007	0.007						1388.30
20	0.6781	1120.8	1140.6	0.344	3.529	76.436	17.919	1.644	0.043	0.074	0.003	0.002	0.006	0.006						1385.12
21	0.6768	1117.8	1137.6	0.346	3.583	76.685	17.631	1.627	0.043	0.074	0.002	0.002	0.006	0.006						1382.80
22	0.6781	1120.0	1139.8	0.366	3.540	76.418	17.937	1.624	0.040	0.065	0.002	0.001	0.006	0.006						1384.19
23	0.6796	1121.6	1141.5	0.388	3.553	76.261	17.929	1.741	0.045	0.075	0.002	0.001	0.004	0.004						1384.19
24	0.6894	1135.2	1155.3	0.424	3.583	75.002	18.540	2.212	0.074	0.145	0.008	0.008	0.005	0.005						1391.47
25	0.6831	1127.2	1147.2	0.381	3.544	75.667	18.417	1.874	0.042	0.067	0.002	0.001	0.005	0.005						1388.04
26	0.6809	1123.7	1143.6	0.382	3.554	76.095	17.993	1.856	0.043	0.069	0.002	0.000	0.006	0.006						1385.90
27	0.6791	1121.6	1141.5	0.367	3.537	76.524	17.543	1.882	0.050	0.086	0.002	0.002	0.006	0.006						1385.11
28	0.6814	1124.7	1144.6	0.394	3.519	76.108	17.936	1.898	0.050	0.085	0.002	0.002	0.006	0.006						1386.64
29	0.6843	1129.0	1149.0	0.407	3.507	75.570	18.434	1.938	0.050	0.084	0.003	0.002	0.004	0.004						1389.06
30	0.6842	1127.4	1147.3	0.442	3.546	75.516	18.500	1.866	0.045	0.076	0.003	0.002	0.004	0.004						1387.10
31	0.6792	1121.6	1141.5	0.387	3.517	76.200	18.152	1.637	0.039	0.063	0.002	0.001	0.002	0.002						1385.03
AVG	0.6796	1122.0	1141.9	0.378	3.541	76.380	17.724	1.833	0.049	0.084	0.003	0.002	0.006	0.006						1385.14

Zone 261

GQ Source Daily Summary

December 2009

Number: 091 **Pressure Base:** 14.730 **Contract Day:** 1
Name: MINOT **Temperature Base:** **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	0.7240	1142.1	1162.4	1162.2	0.550	6.228	68.562	21.288	3.122	0.089	0.152	0.002	0.000	0.008	0.000	0.000	0.000	0.000	0.000	1366.09
2	0.7226	1143.7	1164.0	1163.8	0.569	5.965	68.871	21.266	3.086	0.083	0.148	0.003	0.002	0.008	0.000	0.000	0.000	0.000	0.000	1369.33
3	0.7238	1145.2	1165.0	1165.3	0.629	5.903	68.770	21.255	3.217	0.080	0.137	0.002	0.000	0.007	0.000	0.000	0.000	0.000	0.000	1369.92
4	0.7255	1150.8	1171.1	1171.0	0.552	5.833	68.575	21.418	3.371	0.085	0.152	0.003	0.003	0.007	0.000	0.000	0.000	0.000	0.000	1375.02
5	0.7236	1146.0	1166.3	1166.1	0.533	5.981	68.646	21.445	3.176	0.077	0.134	0.001	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1371.15
6	0.7209	1140.1	1160.3	1159.8	0.547	6.069	69.190	20.821	3.137	0.084	0.143	0.002	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1366.54
7	0.7268	1154.3	1174.8	1175.2	0.542	5.753	68.765	21.134	3.267	0.144	0.387	0.003	0.001	0.004	0.000	0.000	0.000	0.000	0.000	1377.97
8	0.7190	1143.0	1163.2	1163.1	0.537	5.717	69.709	20.609	3.178	0.090	0.153	0.002	0.001	0.004	0.000	0.000	0.000	0.000	0.000	1371.90
9	0.7214	1144.1	1164.4	1164.3	0.533	5.879	69.422	20.514	3.390	0.093	0.158	0.002	0.001	0.007	0.000	0.000	0.000	0.000	0.000	1371.00
10	0.7246	1147.3	1167.6	1167.4	0.545	5.979	68.648	21.243	3.362	0.079	0.136	0.001	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1371.63
11	0.7273	1148.8	1169.2	1169.0	0.549	6.128	68.204	21.458	3.397	0.092	0.161	0.003	0.001	0.007	0.000	0.000	0.000	0.000	0.000	1371.02
12	0.7281	1151.8	1172.2	1172.1	0.537	6.036	68.114	21.596	3.444	0.096	0.170	0.004	0.001	0.003	0.000	0.000	0.000	0.000	0.000	1373.86
13	0.7210	1142.8	1163.1	1162.9	0.539	5.920	69.176	21.006	3.123	0.084	0.144	0.002	0.001	0.005	0.000	0.000	0.000	0.000	0.000	1369.75
14	0.7167	1136.2	1156.4	1156.2	0.536	5.922	69.808	20.598	2.924	0.076	0.129	0.001	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1365.94
15	0.7183	1138.3	1158.5	1158.3	0.534	5.947	69.700	20.486	3.097	0.083	0.143	0.001	0.000	0.008	0.000	0.000	0.000	0.000	0.000	1366.93
16	0.7195	1141.0	1161.2	1161.0	0.543	5.884	69.520	20.708	3.085	0.090	0.159	0.003	0.001	0.010	0.000	0.000	0.000	0.000	0.000	1369.00
17	0.7236	1140.6	1160.8	1160.6	0.541	6.295	68.902	20.659	3.309	0.101	0.179	0.005	0.002	0.007	0.000	0.000	0.000	0.000	0.000	1364.63
18	0.7184	1137.0	1157.2	1157.0	0.528	6.041	69.623	20.550	2.991	0.091	0.162	0.004	0.002	0.007	0.000	0.000	0.000	0.000	0.000	1365.31
19	0.7198	1141.8	1162.0	1161.8	0.549	5.850	69.417	20.901	3.016	0.091	0.163	0.004	0.003	0.006	0.000	0.000	0.000	0.000	0.000	1369.69
20	0.7213	1141.7	1161.9	1161.7	0.538	6.022	69.049	21.103	3.026	0.091	0.160	0.003	0.001	0.005	0.000	0.000	0.000	0.000	0.000	1368.11
21	0.7209	1140.6	1160.8	1160.7	0.543	6.035	69.048	21.165	2.967	0.085	0.148	0.002	0.000	0.005	0.000	0.000	0.000	0.000	0.000	1367.29
22	0.7181	1137.5	1157.7	1157.5	0.539	5.972	69.434	21.005	2.833	0.078	0.133	0.001	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1366.19
23	0.7214	1140.8	1161.0	1160.9	0.559	6.048	68.827	21.462	2.893	0.072	0.127	0.001	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1367.03
24	0.7231	1144.3	1164.5	1164.4	0.568	5.990	68.659	21.528	3.015	0.082	0.147	0.003	0.002	0.005	0.000	0.000	0.000	0.000	0.000	1369.48
25	0.7232	1144.9	1165.2	1165.1	0.563	5.961	68.633	21.582	3.042	0.076	0.133	0.002	0.002	0.005	0.000	0.000	0.000	0.000	0.000	1370.24
26	0.7162	1133.1	1153.0	1153.0	0.542	6.055	69.735	20.669	2.813	0.068	0.114	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	1362.69
27	0.7183	1140.1	1160.3	1160.2	0.549	5.819	69.264	21.453	2.728	0.067	0.115	0.000	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1369.12
28	0.7190	1136.1	1156.2	1156.0	0.552	6.120	69.314	20.903	2.893	0.078	0.134	0.001	0.000	0.006	0.000	0.000	0.000	0.000	0.000	1363.65
29	0.7199	1141.9	1162.1	1162.0	0.565	5.834	69.158	21.340	2.893	0.075	0.129	0.001	0.000	0.005	0.000	0.000	0.000	0.000	0.000	1369.71
30	0.7182	1139.4	1159.6	1159.5	0.560	5.835	69.346	21.284	2.788	0.067	0.115	0.000	0.000	0.005	0.000	0.000	0.000	0.000	0.000	1368.35
31	0.7202	1140.9	1161.1	1160.9	0.579	5.903	69.028	21.435	2.868	0.068	0.114	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	1368.20
Avg	0.7214	1142.0	1162.7	1162.5	0.550	5.965	69.068	21.093	3.079	0.084	0.151	0.002	0.001	0.006	0.000	0.000	0.000	0.000	0.000	1368.93

Zone 2/2

GQ Source Analysis

GQ Source Number:	2501030	Specific Gravity:	0.6404
GQ Source Name:	LIGNITE PLANT	BTU Base:	Dry
Effective Date:	12/1/2009 9:00:00 AM	Measured Heat Value:	1091.52
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	1090.14
Pressure Base:	14.730	Wet Heat Value:	1071.17
Viscosity:		As Deliv. Heat Value:	1090.14

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	82.559		CO2	Carbon Dioxide	0.150
C2	Ethane	13.498	3.599	N2	Nitrogen	3.276
C3	Propane	0.488	0.134	O2	Oxygen	0.000
IC4	Iso-Butane	0.000	0.000	HE	Helium	
NC4	N-Butane	0.000	0.000	H2	Hydrogen	
IC5	Iso-Pentane	0.000	0.000	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.000	0.000	AR	Argon	
C6	Hexane	0.025	0.012	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane					
C9	Nonane					
C10	Decane					
Totals			99.996 %	3.745 GPM		

Sample Date: 12/31/2009 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Remarks:

*** End of Report ***

Zone 263

GQ Source Daily Summary

December 2009

Number: 043 **Pressure Base:** 14.730 **Contract Day:** 1
Name: BISMARCK-CLEVELAND **Temperature Base:** **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	0.7248	1143.4	1163.6	1162.8	0.585	6.171	68.557	21.247	3.178	0.087	0.154	0.005	0.004	0.012	0.000	0.000	0.000	0.000	0.000	1366.81
2	0.7141	1133.2	1153.3	1152.5	0.605	5.749	70.496	20.040	2.862	0.080	0.144	0.006	0.005	0.013	0.000	0.000	0.000	0.000	0.000	1364.79
3	0.7053	1123.9	1143.8	1142.5	0.707	5.333	72.365	18.550	2.825	0.075	0.125	0.006	0.004	0.011	0.000	0.000	0.000	0.000	0.000	1361.98
4	0.6701	1085.7	1104.9	1104.1	0.783	4.236	78.883	13.935	1.980	0.064	0.096	0.007	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1349.78
5	0.6803	1097.3	1116.7	1115.9	0.729	4.571	77.012	15.215	2.280	0.068	0.104	0.007	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1353.97
6	0.6882	1105.4	1125.0	1124.2	0.688	4.879	75.384	16.498	2.357	0.067	0.106	0.006	0.004	0.010	0.000	0.000	0.000	0.000	0.000	1356.22
7	0.6832	1099.8	1119.3	1118.4	0.714	4.713	76.462	15.572	2.323	0.076	0.119	0.007	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1354.18
8	0.6641	1079.4	1098.5	1097.8	0.786	4.047	80.130	12.896	1.946	0.071	0.103	0.008	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1348.07
9	0.6713	1087.0	1106.3	1105.5	0.743	4.330	78.724	13.897	2.114	0.068	0.107	0.006	0.004	0.007	0.000	0.000	0.000	0.000	0.000	1350.26
10	0.6683	1083.2	1102.3	1101.6	0.737	4.295	79.280	13.421	2.095	0.062	0.092	0.006	0.004	0.009	0.000	0.000	0.000	0.000	0.000	1348.40
11	0.6701	1084.3	1103.5	1102.8	0.739	4.390	78.902	13.705	2.084	0.063	0.097	0.007	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1348.08
12	0.6838	1098.9	1118.3	1117.5	0.686	4.874	76.302	15.574	2.354	0.071	0.120	0.006	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1352.36
13	0.6782	1094.1	1113.5	1112.7	0.713	4.587	77.483	14.697	2.312	0.070	0.116	0.007	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1352.19
14	0.6663	1079.3	1098.5	1097.7	0.727	4.354	79.468	13.394	1.879	0.063	0.095	0.007	0.004	0.009	0.000	0.000	0.000	0.000	0.000	1345.75
15	0.6630	1075.6	1094.7	1093.9	0.746	4.239	80.087	12.946	1.824	0.056	0.084	0.006	0.004	0.008	0.000	0.000	0.000	0.000	0.000	1344.42
16	0.6823	1098.0	1117.5	1116.7	0.663	4.815	76.551	15.465	2.286	0.075	0.122	0.007	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1352.88
17	0.6910	1105.0	1124.6	1123.7	0.574	5.708	72.313	18.423	2.734	0.081	0.144	0.007	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1352.93
18	0.7044	1119.8	1139.6	1138.7	0.574	5.708	72.313	18.423	2.734	0.081	0.144	0.007	0.005	0.011	0.000	0.000	0.000	0.000	0.000	1357.82
19	0.7029	1123.4	1143.3	1142.3	0.601	5.302	72.667	18.515	2.651	0.084	0.154	0.008	0.007	0.011	0.000	0.000	0.000	0.000	0.000	1363.69
20	0.7097	1128.4	1148.4	1147.4	0.596	5.640	71.362	19.339	2.801	0.087	0.153	0.007	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1363.29
21	0.6903	1104.5	1124.0	1123.2	0.648	5.199	74.959	16.582	2.383	0.078	0.130	0.007	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1352.91
22	0.6915	1105.4	1125.0	1124.1	0.640	5.270	74.612	16.930	2.337	0.073	0.119	0.006	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1352.87
23	0.7052	1121.7	1141.6	1140.7	0.622	5.588	71.992	19.006	2.583	0.071	0.119	0.006	0.004	0.010	0.000	0.000	0.000	0.000	0.000	1359.52
24	0.6985	1114.3	1134.0	1133.1	0.652	5.364	73.241	18.116	2.434	0.066	0.107	0.006	0.004	0.009	0.000	0.000	0.000	0.000	0.000	1359.95
25	0.7076	1127.8	1147.7	1146.7	0.642	5.419	71.817	19.093	2.779	0.080	0.144	0.008	0.007	0.011	0.000	0.000	0.000	0.000	0.000	1364.40
26	0.6974	1116.3	1136.1	1135.1	0.621	5.189	73.399	18.200	2.418	0.060	0.096	0.005	0.004	0.009	0.000	0.000	0.000	0.000	0.000	1360.42
27	0.7090	1128.1	1148.1	1147.1	0.592	5.602	71.185	19.818	2.606	0.068	0.113	0.005	0.004	0.009	0.000	0.000	0.000	0.000	0.000	1363.54
28	0.7165	1133.9	1154.0	1152.9	0.565	6.004	69.767	20.659	2.786	0.074	0.128	0.005	0.004	0.009	0.000	0.000	0.000	0.000	0.000	1363.27
29	0.7166	1136.1	1156.2	1155.2	0.574	5.858	69.889	20.585	2.863	0.078	0.135	0.005	0.004	0.009	0.000	0.000	0.000	0.000	0.000	1365.93
30	0.7001	1117.9	1137.7	1136.8	0.617	5.354	72.867	18.532	2.444	0.063	0.105	0.005	0.004	0.009	0.000	0.000	0.000	0.000	0.000	1359.68
31	0.6972	1115.2	1135.0	1134.1	0.641	5.207	73.434	18.158	2.381	0.061	0.100	0.005	0.004	0.008	0.000	0.000	0.000	0.000	0.000	1359.28
AVG	0.6920	1109.0	1128.2	1127.3	0.663	5.082	74.662	16.949	2.433	0.072	0.118	0.006	0.005	0.010	0.000	0.000	0.000	0.000	0.000	1356.34

Zone 271

GQ Source Daily Summary

December 2009

Number: 063

Pressure Base: 14.730

Contract Day: 1

Name: CLEVELAND-MAPLETON

Temperature Base:

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	0.7281	1146.0	1166.3	1165.6	0.632	6.249	67.920	21.705	3.232	0.090	0.158	0.006	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1366.84	
2	0.7167	1134.2	1154.3	1153.7	0.597	5.941	69.980	20.274	2.966	0.083	0.143	0.005	0.004	0.006	0.000	0.000	0.000	0.000	0.000	1363.52	
3	0.7092	1128.2	1148.2	1147.6	0.654	5.525	71.503	19.211	2.877	0.078	0.134	0.006	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1363.38	
4	0.6768	1091.2	1110.5	1109.6	0.784	4.528	77.556	14.847	2.111	0.063	0.095	0.006	0.004	0.006	0.000	0.000	0.000	0.000	0.000	1349.89	
5	0.6756	1091.8	1111.1	1110.7	0.734	4.456	77.917	14.460	2.233	0.072	0.109	0.008	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1351.81	
6	0.6840	1100.4	1119.9	1118.8	0.691	4.786	76.125	15.924	2.292	0.065	0.101	0.006	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1354.12	
7	0.6864	1100.4	1119.9	1119.5	0.693	5.005	75.719	16.022	2.356	0.074	0.116	0.006	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1351.81	
8	0.6714	1088.0	1107.2	1107.0	0.752	4.265	78.739	13.891	2.149	0.076	0.113	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1351.32	
9	0.6672	1082.5	1101.7	1101.4	0.752	4.204	79.394	13.490	1.980	0.067	0.100	0.006	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1348.73	
10	0.6703	1085.3	1104.5	1104.1	0.729	4.357	78.921	13.641	2.171	0.066	0.101	0.006	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1349.09	
11	0.6670	1081.4	1100.5	1100.2	0.734	4.276	79.380	13.455	1.998	0.057	0.084	0.006	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1347.53	
12	0.6803	1093.5	1112.9	1112.6	0.703	4.843	76.939	15.005	2.308	0.071	0.116	0.006	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1349.26	
13	0.6831	1100.1	1119.6	1119.4	0.685	4.729	76.514	15.422	2.439	0.073	0.122	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1354.64	
14	0.6682	1081.4	1100.6	1100.3	0.709	4.426	79.067	13.689	1.934	0.063	0.096	0.006	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1346.48	
15	0.6626	1074.3	1093.3	1093.0	0.745	4.281	80.101	12.914	1.801	0.057	0.085	0.006	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1343.13	
16	0.6776	1092.6	1111.9	1111.5	0.675	4.681	77.390	14.854	2.198	0.071	0.114	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1350.86	
17	0.6875	1102.3	1121.8	1121.3	0.640	5.072	75.521	16.153	2.390	0.078	0.129	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1353.09	
18	0.7041	1118.6	1138.4	1137.9	0.575	5.750	72.388	18.235	2.801	0.085	0.148	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1356.65	
19	0.6994	1116.9	1136.7	1136.1	0.592	5.386	73.214	17.977	2.578	0.084	0.149	0.008	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1359.14	
20	0.7101	1128.7	1148.7	1148.2	0.595	5.665	71.253	19.388	2.841	0.088	0.153	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1363.19	
21	0.6932	1107.7	1127.3	1126.9	0.630	5.298	74.360	17.040	2.444	0.080	0.133	0.007	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1354.06	
22	0.6934	1108.4	1128.1	1127.7	0.626	5.282	74.203	17.299	2.382	0.073	0.120	0.006	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1354.73	
23	0.6993	1114.9	1134.6	1134.2	0.615	5.461	73.017	18.252	2.455	0.070	0.116	0.005	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1356.82	
24	0.6995	1114.9	1134.7	1134.4	0.642	5.438	73.011	18.241	2.475	0.067	0.110	0.006	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1356.74	
25	0.7064	1125.7	1145.6	1145.4	0.637	5.434	71.938	19.037	2.711	0.081	0.143	0.008	0.007	0.005	0.000	0.000	0.000	0.000	0.000	1363.13	
26	0.7049	1124.1	1144.0	1143.8	0.608	5.437	72.005	19.140	2.621	0.067	0.110	0.005	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1362.65	
27	0.6960	1110.0	1129.7	1129.3	0.621	5.436	73.607	17.762	2.398	0.064	0.101	0.005	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1354.15	
28	0.7135	1131.9	1151.9	1151.7	0.573	5.825	70.240	20.481	2.683	0.069	0.118	0.004	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1363.79	
29	0.7169	1134.3	1154.4	1154.2	0.565	6.007	69.741	20.597	2.864	0.079	0.135	0.005	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1363.46	
30	0.7001	1118.5	1138.3	1138.0	0.615	5.315	72.868	18.552	2.463	0.066	0.109	0.005	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1360.41	
31	0.7055	1124.7	1144.7	1144.4	0.605	5.457	71.788	19.432	2.537	0.064	0.106	0.005	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1362.84	
Avg	0.6921	1108.0	1127.8	1127.4	0.658	5.123	74.591	16.980	2.442	0.072	0.118	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1355.72	

Zone 272

GQ Source Daily Summary

December 2009

Number: 061 **Pressure Base:** 14.730 **Contract Day:** 1
Name: CLEVELAND-GRAFTON **Temperature Base:** **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	0.7277	1145.7	1166.0	1166.0	0.631	6.228	68.001	21.651	3.227	0.090	0.158	0.006	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1366.89
2	0.7169	1135.1	1155.2	1155.2	0.598	5.905	69.921	26.377	2.958	0.082	0.143	0.005	0.004	0.006	0.000	0.000	0.000	0.000	0.000	1364.35
3	0.7099	1129.0	1149.0	1148.1	0.654	5.538	71.372	19.305	2.900	0.078	0.135	0.006	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1363.71
4	0.6772	1091.8	1111.1	1111.1	0.783	4.525	77.493	14.899	2.123	0.064	0.096	0.006	0.004	0.006	0.000	0.000	0.000	0.000	0.000	1350.28
5	0.6755	1092.2	1111.6	1111.5	0.736	4.422	77.946	14.460	2.233	0.072	0.110	0.008	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1352.42
6	0.6846	1101.3	1120.8	1120.9	0.692	4.790	76.015	16.015	2.305	0.076	0.103	0.006	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1354.63
7	0.6867	1101.2	1120.7	1120.8	0.693	4.990	75.663	16.083	2.365	0.074	0.116	0.006	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1352.49
8	0.6711	1088.1	1107.4	1107.3	0.754	4.231	78.813	13.863	2.134	0.075	0.113	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1351.77
9	0.6674	1082.7	1101.9	1102.0	0.752	4.210	79.365	13.499	1.993	0.067	0.101	0.006	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1348.76
10	0.6704	1085.7	1104.9	1105.2	0.730	4.346	78.883	13.671	2.185	0.067	0.102	0.007	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1349.46
11	0.6672	1081.8	1101.0	1101.1	0.735	4.272	79.346	13.490	2.001	0.058	0.085	0.006	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1347.93
12	0.6804	1093.6	1113.0	1113.2	0.703	4.830	76.937	15.016	2.311	0.071	0.117	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1349.36
13	0.6832	1100.5	1120.0	1120.0	0.686	4.707	76.522	15.436	2.438	0.073	0.123	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1346.57
14	0.6679	1081.3	1100.4	1100.3	0.712	4.400	79.160	13.625	1.928	0.063	0.096	0.006	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1343.38
15	0.6627	1074.5	1093.6	1093.6	0.746	4.269	80.109	12.914	1.804	0.057	0.085	0.006	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1351.27
16	0.6772	1092.7	1112.0	1112.2	0.677	4.644	77.450	14.833	2.194	0.072	0.114	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1353.04
17	0.6870	1101.9	1121.4	1121.5	0.642	5.045	75.617	16.088	2.384	0.078	0.129	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1357.51
18	0.7047	1119.8	1139.6	1139.6	0.574	5.734	72.305	18.319	2.813	0.086	0.150	0.007	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1359.46
19	0.6988	1116.6	1136.4	1136.6	0.594	5.335	73.333	17.923	2.562	0.083	0.150	0.008	0.007	0.006	0.000	0.000	0.000	0.000	0.000	1363.54
20	0.7103	1129.2	1149.2	1149.4	0.595	5.637	71.252	19.408	2.849	0.088	0.154	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1359.46
21	0.6931	1108.1	1127.7	1127.9	0.631	5.274	74.371	17.040	2.451	0.081	0.135	0.007	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1354.59
22	0.6937	1109.1	1128.8	1129.0	0.627	5.268	74.144	17.361	2.391	0.073	0.120	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1355.28
23	0.6989	1114.9	1134.6	1134.7	0.617	5.420	73.105	18.210	2.447	0.071	0.116	0.006	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1355.28
24	0.7001	1115.2	1135.0	1135.0	0.642	5.464	72.932	18.281	2.486	0.067	0.111	0.006	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1356.55
25	0.7067	1126.2	1146.2	1146.2	0.637	5.428	71.905	19.062	2.722	0.081	0.144	0.008	0.007	0.005	0.000	0.000	0.000	0.000	0.000	1363.46
26	0.7052	1124.1	1144.0	1144.2	0.609	5.454	71.978	19.139	2.630	0.067	0.110	0.005	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1362.34
27	0.6962	1110.3	1130.0	1130.1	0.621	5.420	73.606	17.768	2.406	0.064	0.102	0.005	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1364.73
28	0.7133	1132.6	1152.6	1152.8	0.573	5.762	70.285	20.505	2.677	0.069	0.118	0.005	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1364.01
29	0.7167	1134.6	1154.7	1154.6	0.565	5.989	69.768	20.591	2.860	0.079	0.135	0.005	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1364.01
30	0.7002	1119.0	1138.8	1139.0	0.615	5.294	72.843	18.586	2.474	0.066	0.110	0.005	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1360.97
31	0.7056	1124.9	1144.9	1144.9	0.607	5.460	71.774	19.423	2.553	0.064	0.107	0.005	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1362.99
Avg	0.6921	1109.0	1128.1	1128.2	0.659	5.106	74.588	16.995	2.445	0.072	0.119	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1356.08

Zone 273

GQ Source Daily Summary

December 2009

Number: 041

Name: BISMARCK-DICKINSON

Pressure Base: 14.730

Contract Day: 1

Temperature Base:

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	0.5874	966.2	983.3	983.0	0.898	3.572	93.843	1.522	0.147	0.008	0.007	0.001	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1282.96
2	0.6068	1003.9	1021.7	1021.3	1.170	2.682	90.746	4.834	0.498	0.030	0.025	0.006	0.003	0.006	0.000	0.000	0.000	0.000	0.000	1311.48
3	0.6086	1008.9	1026.7	1026.4	1.039	2.742	90.371	5.180	0.580	0.039	0.032	0.008	0.004	0.007	0.000	0.000	0.000	0.000	0.000	1316.15
4	0.6117	1017.5	1035.5	1035.2	1.021	2.536	89.866	5.804	0.669	0.045	0.039	0.009	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1324.03
5	0.6035	1004.8	1022.6	1022.3	1.028	2.524	91.453	4.342	0.538	0.050	0.042	0.010	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1316.41
6	0.6027	1003.1	1020.8	1020.5	1.045	2.535	91.572	4.235	0.508	0.046	0.038	0.009	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1314.91
7	0.6050	1007.9	1025.8	1025.4	1.062	2.433	91.171	4.675	0.554	0.045	0.038	0.009	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1318.72
8	0.6056	1011.5	1029.5	1029.2	1.027	2.314	91.055	4.936	0.566	0.044	0.037	0.009	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1322.90
9	0.6038	1007.5	1025.4	1025.1	1.030	2.386	91.325	4.657	0.518	0.036	0.032	0.007	0.004	0.006	0.000	0.000	0.000	0.000	0.000	1319.62
10	0.6026	1007.4	1025.2	1024.9	0.962	2.387	91.532	4.503	0.523	0.039	0.035	0.008	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1320.70
11	0.6013	1004.8	1022.6	1022.3	0.969	2.416	91.753	4.282	0.491	0.036	0.033	0.008	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1318.69
12	0.5990	999.7	1017.4	1017.2	0.970	2.508	92.110	3.913	0.423	0.032	0.029	0.007	0.004	0.008	0.000	0.000	0.000	0.000	0.000	1314.56
13	0.6005	1003.1	1020.9	1020.6	0.977	2.428	91.885	4.158	0.469	0.030	0.032	0.007	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1317.42
14	0.6028	1007.8	1025.7	1025.4	0.936	2.418	91.496	4.507	0.540	0.041	0.040	0.009	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1321.05
15	0.6013	1004.3	1022.0	1021.7	0.985	2.423	91.788	4.212	0.496	0.038	0.037	0.009	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1318.00
16	0.6014	1005.2	1023.0	1022.7	0.927	2.459	91.738	4.261	0.509	0.043	0.039	0.010	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1319.19
17	0.5989	999.4	1017.1	1016.8	0.881	2.655	92.119	3.779	0.462	0.041	0.038	0.009	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1314.18
18	0.5983	997.0	1014.7	1014.4	0.858	2.768	92.169	3.682	0.427	0.039	0.035	0.009	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1311.86
19	0.5993	998.1	1015.8	1015.5	0.937	2.679	92.083	3.747	0.453	0.040	0.038	0.009	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1312.19
20	0.5995	998.4	1016.1	1015.8	0.953	2.654	92.067	3.766	0.460	0.040	0.037	0.009	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1312.33
21	0.5991	997.1	1014.8	1014.5	0.935	2.719	92.129	3.657	0.456	0.042	0.039	0.009	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1311.13
22	0.5973	993.8	1011.4	1011.2	0.961	2.715	92.531	3.232	0.450	0.046	0.041	0.010	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1308.72
23	0.5959	992.2	1009.7	1009.5	1.041	2.566	92.915	2.922	0.437	0.050	0.043	0.011	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1308.02
24	0.5988	998.0	1015.6	1015.4	1.003	2.541	92.292	3.602	0.449	0.047	0.042	0.010	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1312.50
25	0.6008	1002.0	1019.7	1019.5	0.987	2.509	91.906	3.992	0.497	0.045	0.041	0.010	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1315.59
26	0.6009	1002.2	1019.9	1019.7	0.968	2.538	91.887	3.980	0.512	0.048	0.043	0.010	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1315.69
27	0.6001	1001.0	1018.7	1018.4	0.968	2.530	92.083	3.788	0.506	0.045	0.045	0.011	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1315.04
28	0.5978	996.4	1014.1	1013.8	0.955	2.619	92.461	3.383	0.461	0.050	0.044	0.011	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1311.51
29	0.5998	999.3	1016.9	1016.7	0.895	2.721	91.983	3.809	0.479	0.047	0.041	0.010	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1313.09
30	0.6004	998.4	1016.1	1015.8	0.879	2.852	91.794	3.901	0.473	0.040	0.038	0.009	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1311.36
31	0.6016	1001.0	1018.8	1018.5	0.866	2.831	91.550	4.151	0.506	0.037	0.038	0.008	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1313.43
Avg	0.6010	1001.0	1019.0	1018.7	0.972	2.602	91.796	4.045	0.486	0.041	0.037	0.009	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1314.30

Zone 28

GQ Source Daily Summary

December 2009

Number: 271

Pressure Base: 14.730

Contract Day: 1

Name: DICKINSON AREA

Temperature Base:

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	0.6013	995.7	1013.3	1013.4	1.257	2.530	91.803	3.949	0.414	0.027	0.020	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1306.61
2	0.6124	1015.0	1032.9	1033.0	1.033	2.736	89.522	6.011	0.644	0.031	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1319.94
3	0.6074	1007.5	1025.3	1025.4	1.076	2.650	90.582	5.040	0.583	0.037	0.030	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1315.65
4	0.6064	1010.3	1028.2	1028.3	0.999	2.505	90.793	4.996	0.621	0.046	0.038	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1320.38
5	0.6002	999.7	1017.4	1017.6	1.058	2.481	91.972	3.933	0.472	0.046	0.036	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1313.23
6	0.6033	1004.7	1022.5	1022.6	1.028	2.512	91.369	4.465	0.547	0.043	0.034	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1316.41
7	0.6045	1008.6	1026.4	1026.7	1.067	2.326	91.222	4.741	0.566	0.042	0.034	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1320.21
8	0.6036	1008.3	1026.2	1026.3	1.029	2.316	91.319	4.726	0.541	0.037	0.030	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1320.83
9	0.6028	1007.3	1025.2	1025.3	0.994	2.357	91.403	4.664	0.519	0.034	0.028	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1320.38
10	0.6015	1005.8	1023.6	1023.7	0.952	2.387	91.643	4.424	0.524	0.036	0.031	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1319.87
11	0.5988	1000.4	1018.1	1018.2	0.975	2.434	92.105	3.984	0.447	0.028	0.025	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1315.65
12	0.5987	1000.3	1018.0	1018.1	0.964	2.445	92.108	3.990	0.439	0.027	0.025	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1315.66
13	0.6006	1004.2	1022.0	1022.1	0.954	2.396	91.796	4.287	0.504	0.030	0.030	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1318.79
14	0.6009	1004.4	1022.2	1022.3	0.960	2.403	91.780	4.264	0.517	0.037	0.035	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1318.68
15	0.6010	1004.8	1022.6	1022.8	0.960	2.388	91.747	4.321	0.510	0.037	0.034	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1319.11
16	0.5996	1002.6	1020.3	1020.4	0.891	2.504	91.931	4.103	0.493	0.040	0.035	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1317.65
17	0.5967	994.9	1012.5	1012.6	0.866	2.732	92.406	3.493	0.433	0.040	0.036	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1310.79
18	0.5982	997.1	1014.7	1014.8	0.888	2.706	92.150	3.736	0.447	0.037	0.034	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1312.01
19	0.5981	996.5	1014.2	1014.3	0.946	2.646	92.229	3.655	0.454	0.035	0.033	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1311.36
20	0.5985	997.0	1014.7	1014.8	0.949	2.647	92.164	3.704	0.462	0.038	0.034	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1311.61
21	0.5972	994.3	1012.0	1012.1	0.943	2.696	92.424	3.402	0.456	0.041	0.036	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1309.50
22	0.5951	991.1	1008.6	1008.8	1.020	2.578	92.953	2.920	0.439	0.046	0.040	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1307.52
23	0.5961	993.2	1010.8	1011.0	0.999	2.577	92.714	3.192	0.432	0.045	0.038	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1309.19
24	0.5994	1000.2	1017.9	1018.0	0.993	2.474	92.088	3.878	0.485	0.042	0.038	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1314.73
25	0.6006	1000.9	1018.7	1018.8	0.986	2.552	91.849	4.018	0.511	0.043	0.038	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1314.42
26	0.5999	1001.4	1019.1	1019.3	0.974	2.474	92.029	3.906	0.523	0.048	0.042	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1315.77
27	0.5969	995.7	1013.3	1013.5	0.959	2.567	92.552	3.358	0.472	0.048	0.041	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1311.54
28	0.5972	995.4	1013.0	1013.2	0.921	2.668	92.408	3.463	0.454	0.045	0.038	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1310.86
29	0.5992	997.6	1015.2	1015.4	0.879	2.785	91.957	3.822	0.479	0.040	0.036	0.000	0.000	0.003	0.000	0.000	0.000	0.000	0.000	1311.55
30	0.6001	999.0	1016.7	1016.8	0.859	2.813	91.749	4.014	0.493	0.036	0.034	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1312.46
31	0.6008	1000.1	1017.8	1017.9	0.860	2.819	91.592	4.160	0.503	0.032	0.032	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1313.02
Avg	0.6006	1001.0	1018.8	1019.0	0.976	2.552	91.818	4.084	0.496	0.038	0.033	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1314.69

Zone 31

GQ Source Daily Summary

December 2009

Number: 051

Name: CABIN CR-DICKINSON

Pressure Base: 14.730

Contract Day: 1

Temperature Base:

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	0.6086	1007.0	1024.8	1024.1	1.231	2.564	90.538	5.032	0.559	0.033	0.027	0.007	0.003	0.006	0.000	0.000	0.000	0.000	0.000	1313.68
2	0.6071	1006.2	1024.0	1023.3	1.049	2.757	90.693	4.808	0.601	0.040	0.033	0.008	0.004	0.006	0.000	0.000	0.000	0.000	0.000	1314.14
3	0.6101	1013.4	1031.3	1030.7	1.052	2.588	90.200	5.404	0.655	0.043	0.037	0.008	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1320.39
4	0.6012	1000.9	1018.7	1018.0	1.049	2.514	91.933	3.859	0.528	0.051	0.042	0.011	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1313.78
5	0.5994	997.3	1015.0	1014.3	1.076	2.527	92.263	3.541	0.484	0.048	0.039	0.010	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1310.96
6	0.6035	1005.2	1023.0	1022.3	1.061	2.458	91.481	4.341	0.554	0.046	0.038	0.009	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1316.80
7	0.6044	1009.5	1027.4	1026.9	1.037	2.314	91.322	4.647	0.576	0.045	0.038	0.009	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1321.50
8	0.6022	1004.7	1022.5	1021.8	1.059	2.369	91.680	4.286	0.518	0.037	0.033	0.007	0.004	0.006	0.000	0.000	0.000	0.000	0.000	1317.57
9	0.6018	1005.6	1023.4	1022.8	0.989	2.378	91.710	4.311	0.519	0.039	0.034	0.008	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1319.26
10	0.6013	1005.2	1023.0	1022.3	0.964	2.396	91.794	4.234	0.517	0.039	0.035	0.008	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1319.22
11	0.5979	998.0	1015.6	1015.0	0.983	2.487	92.371	3.648	0.431	0.030	0.029	0.007	0.004	0.008	0.000	0.000	0.000	0.000	0.000	1313.49
12	0.5985	999.7	1017.4	1016.8	0.985	2.436	92.287	3.758	0.451	0.032	0.032	0.007	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1315.10
13	0.6014	1005.5	1023.3	1022.7	0.942	2.416	91.769	4.248	0.529	0.037	0.037	0.008	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1319.56
14	0.6005	1002.9	1020.7	1020.1	0.987	2.425	91.959	4.032	0.499	0.039	0.038	0.009	0.005	0.007	0.000	0.000	0.000	0.000	0.000	1317.12
15	0.6007	1004.0	1021.8	1021.1	0.958	2.422	91.914	4.089	0.511	0.042	0.039	0.010	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1318.34
16	0.5984	999.2	1016.9	1016.0	0.884	2.605	92.275	3.650	0.477	0.043	0.039	0.010	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1314.61
17	0.5964	993.8	1011.4	1010.6	0.875	2.764	92.569	3.265	0.429	0.039	0.036	0.009	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1309.68
18	0.5977	995.5	1013.1	1012.3	0.931	2.699	92.408	3.407	0.452	0.041	0.039	0.010	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1310.44
19	0.5982	996.2	1013.9	1013.0	0.957	2.657	92.334	3.494	0.458	0.040	0.038	0.009	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1310.92
20	0.5980	995.7	1013.3	1012.4	0.948	2.694	92.356	3.441	0.459	0.042	0.039	0.009	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1310.33
21	0.5968	993.3	1010.9	1010.3	0.958	2.701	92.633	3.152	0.445	0.046	0.041	0.010	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1308.62
22	0.5956	991.9	1009.5	1008.9	1.035	2.556	92.979	2.878	0.433	0.050	0.043	0.011	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1308.11
23	0.5967	994.3	1011.9	1011.3	1.026	2.530	92.753	3.126	0.450	0.048	0.043	0.011	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1310.01
24	0.5994	999.4	1017.1	1016.5	0.998	2.512	92.214	3.671	0.496	0.045	0.041	0.010	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1313.81
25	0.6000	1000.8	1018.5	1017.9	0.975	2.526	92.086	3.782	0.514	0.048	0.043	0.010	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1314.87
26	0.5986	998.7	1016.4	1015.8	0.970	2.527	92.379	3.501	0.497	0.052	0.045	0.012	0.007	0.010	0.000	0.000	0.000	0.000	0.000	1313.68
27	0.5961	992.9	1010.5	1009.9	0.956	2.661	92.805	3.012	0.446	0.049	0.043	0.011	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1308.86
28	0.5982	996.8	1014.5	1013.9	0.921	2.678	92.362	3.437	0.486	0.049	0.043	0.010	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1311.67
29	0.5988	995.6	1013.3	1012.5	0.890	2.854	92.138	3.542	0.473	0.041	0.039	0.009	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1309.45
30	0.6002	998.8	1016.5	1015.9	0.865	2.831	91.940	3.868	0.499	0.038	0.038	0.008	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1312.10
31	0.6010	999.8	1017.5	1016.9	0.861	2.851	91.673	4.012	0.508	0.035	0.037	0.008	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1312.52
AVG	0.6003	1000.0	1018.0	1017.3	0.983	2.571	91.991	3.854	0.499	0.042	0.038	0.009	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1313.89

Zone 32

GQ Source Daily Summary

December 2009

Number: 111 **Pressure Base:** 14.730 **Contract Day:** 1
Name: LITTLE KNIFE PLANT **Temperature Base:** **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	0.6714	1139.0	1159.1	1158.3	0.000	2.316	76.140	21.173	0.359	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.68
2	0.6734	1142.2	1162.4	1161.5	0.000	2.316	75.702	21.626	0.345	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.49
3	0.6731	1141.7	1162.0	1161.1	0.000	2.309	75.769	21.574	0.335	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.33
4	0.6698	1137.5	1157.6	1156.5	0.000	2.264	76.447	20.934	0.343	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.44
5	0.6714	1139.6	1159.8	1158.9	0.000	2.283	76.111	21.261	0.333	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.42
6	0.6710	1138.6	1158.7	1157.9	0.000	2.307	76.192	21.155	0.333	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.56
7	0.6673	1133.6	1153.7	1153.0	0.000	2.257	76.942	20.479	0.310	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.35
8	0.6686	1135.8	1155.9	1155.2	0.000	2.254	76.673	20.742	0.320	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.60
9	0.6705	1137.8	1158.0	1157.3	0.000	2.300	76.295	21.075	0.314	0.006	0.008	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1414.22
10	0.6708	1138.1	1158.3	1157.5	0.000	2.312	76.228	21.126	0.322	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.26
11	0.6700	1137.1	1157.3	1156.2	0.000	2.306	76.413	20.913	0.355	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.76
12	0.6700	1136.7	1156.8	1156.1	0.000	2.326	76.396	20.937	0.329	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.28
13	0.6705	1137.6	1157.7	1156.9	0.000	2.318	76.284	21.065	0.322	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.91
14	0.6699	1136.7	1156.9	1156.3	0.000	2.311	76.406	20.956	0.315	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.50
15	0.6709	1138.0	1158.2	1157.2	0.000	2.336	76.220	21.080	0.352	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.92
16	0.6718	1139.3	1159.5	1158.2	0.000	2.340	76.063	21.209	0.375	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.60
17	0.6729	1140.7	1160.9	1159.8	0.000	2.359	75.839	21.409	0.381	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.17
18	0.6737	1141.8	1162.0	1160.6	0.000	2.371	75.672	21.561	0.383	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.63
19	0.6720	1139.1	1159.3	1158.2	0.000	2.365	76.037	21.202	0.383	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.23
20	0.6726	1140.1	1160.3	1159.2	0.000	2.361	75.911	21.331	0.383	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.84
21	0.6702	1136.4	1156.6	1156.0	0.000	2.361	76.376	20.886	0.365	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.78
22	0.6711	1137.2	1157.4	1156.6	0.000	2.400	76.180	21.041	0.366	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.78
23	0.6703	1136.7	1156.8	1156.2	0.000	2.353	76.316	21.001	0.318	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.02
24	0.6722	1140.3	1160.5	1159.9	0.000	2.320	75.907	21.452	0.308	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.39
25	0.6714	1139.0	1159.2	1158.8	0.000	2.316	76.096	21.262	0.314	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.70
26	0.6682	1134.2	1154.2	1153.7	0.000	2.309	76.767	20.583	0.328	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.06
27	0.6665	1132.0	1152.0	1151.5	0.000	2.284	77.112	20.265	0.327	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1411.14
28	0.6652	1130.0	1150.1	1149.3	0.000	2.279	77.394	19.978	0.337	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1410.10
29	0.6666	1131.8	1151.9	1151.3	0.000	2.306	77.103	20.234	0.344	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1410.80
30	0.6694	1137.0	1157.2	1156.6	0.000	2.255	76.518	20.881	0.334	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.28
31	0.6725	1140.4	1160.6	1159.8	0.000	2.331	75.889	21.432	0.336	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.35
Avg	0.6705	1138.0	1157.8	1157.0	0.000	2.317	76.303	21.027	0.341	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.92

Zone 33

GQ Source Daily Summary December 2009

Number: 331		Pressure Base: 14.730										Contract Day: 1									
Name: MARMARTH PLANT		Temperature Base:										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	0.8072	1141.4	1161.6	1160.9	2.842	10.619	53.506	29.456	3.207	0.080	0.247	0.011	0.028	0.004	0.000	0.000	0.000	0.000	0.000	1292.98	
2	0.8005	1140.5	1160.7	1160.2	2.325	10.838	54.176	29.232	3.058	0.080	0.248	0.011	0.029	0.004	0.000	0.000	0.000	0.000	0.000	1297.29	
3	0.7927	1131.7	1151.7	1151.4	2.152	10.905	55.375	28.382	2.793	0.081	0.260	0.013	0.034	0.005	0.000	0.000	0.000	0.000	0.000	1293.61	
4	0.8002	1141.6	1161.8	1161.3	2.356	10.703	53.721	30.268	2.651	0.066	0.201	0.008	0.021	0.003	0.000	0.000	0.000	0.000	0.000	1298.75	
5	0.7988	1139.3	1159.5	1159.0	2.322	10.752	54.223	29.529	2.857	0.069	0.212	0.009	0.024	0.003	0.000	0.000	0.000	0.000	0.000	1297.37	
6	0.7995	1141.2	1161.4	1160.9	2.277	10.774	54.103	29.616	2.897	0.073	0.222	0.009	0.024	0.003	0.000	0.000	0.000	0.000	0.000	1298.88	
7	0.8011	1143.4	1163.6	1163.2	2.325	10.715	53.957	29.668	2.990	0.075	0.232	0.010	0.026	0.003	0.000	0.000	0.000	0.000	0.000	1300.13	
8	0.8000	1142.9	1163.1	1162.8	2.256	10.752	54.119	29.551	2.958	0.075	0.238	0.012	0.033	0.005	0.000	0.000	0.000	0.000	0.000	1300.39	
9	0.7909	1142.0	1162.2	1161.6	1.889	10.508	55.026	29.810	2.470	0.065	0.195	0.009	0.023	0.006	0.000	0.000	0.000	0.000	0.000	1306.89	
10	0.7924	1143.7	1164.0	1162.9	1.837	10.625	54.759	29.880	2.611	0.064	0.192	0.008	0.021	0.003	0.000	0.000	0.000	0.000	0.000	1307.60	
11	0.7947	1138.2	1158.3	1156.9	2.109	10.763	54.691	29.393	2.749	0.065	0.196	0.008	0.022	0.004	0.000	0.000	0.000	0.000	0.000	1299.39	
12	0.7973	1138.3	1158.5	1157.2	2.228	10.817	54.236	29.694	2.738	0.064	0.192	0.008	0.020	0.003	0.000	0.000	0.000	0.000	0.000	1297.43	
13	0.7947	1139.4	1159.6	1158.3	1.940	10.952	54.403	29.754	2.646	0.067	0.204	0.009	0.023	0.003	0.000	0.000	0.000	0.000	0.000	1300.74	
14	0.7843	1135.0	1155.1	1154.4	1.476	10.950	55.447	29.745	2.130	0.056	0.169	0.007	0.018	0.003	0.000	0.000	0.000	0.000	0.000	1304.30	
15	0.7842	1137.3	1157.4	1156.2	1.631	10.564	55.810	29.493	2.244	0.058	0.171	0.007	0.019	0.004	0.000	0.000	0.000	0.000	0.000	1307.04	
16	0.7933	1137.6	1157.7	1155.9	2.090	10.695	54.939	29.279	2.688	0.068	0.206	0.009	0.023	0.003	0.000	0.000	0.000	0.000	0.000	1299.86	
17	0.7933	1139.4	1159.6	1157.5	1.959	10.787	54.953	29.180	2.778	0.074	0.228	0.010	0.027	0.004	0.000	0.000	0.000	0.000	0.000	1301.89	
18	0.7964	1146.3	1166.6	1164.9	1.989	10.612	54.389	29.875	2.798	0.073	0.226	0.010	0.025	0.004	0.000	0.000	0.000	0.000	0.000	1307.21	
19	0.7956	1145.2	1165.5	1163.4	1.966	10.642	54.588	29.615	2.834	0.076	0.236	0.010	0.028	0.004	0.000	0.000	0.000	0.000	0.000	1306.59	
20	0.7936	1141.4	1161.6	1159.7	1.874	10.821	54.764	29.476	2.717	0.074	0.232	0.010	0.027	0.004	0.000	0.000	0.000	0.000	0.000	1303.93	
21	0.7959	1145.2	1165.5	1164.0	1.923	10.732	54.353	29.907	2.746	0.074	0.226	0.009	0.025	0.004	0.000	0.000	0.000	0.000	0.000	1306.38	
22	0.7962	1144.9	1165.2	1163.6	1.963	10.721	54.400	29.761	2.815	0.074	0.227	0.010	0.025	0.004	0.000	0.000	0.000	0.000	0.000	1305.76	
23	0.7944	1137.9	1158.0	1156.8	2.018	10.899	54.532	29.628	2.612	0.068	0.209	0.009	0.023	0.003	0.000	0.000	0.000	0.000	0.000	1299.22	
24	0.7933	1139.9	1160.1	1158.8	1.935	10.791	54.549	29.936	2.491	0.065	0.200	0.008	0.022	0.003	0.000	0.000	0.000	0.000	0.000	1302.53	
25	0.7879	1134.0	1154.1	1153.0	1.930	10.645	55.685	28.942	2.502	0.065	0.198	0.008	0.021	0.003	0.000	0.000	0.000	0.000	0.000	1300.23	
26	0.6890	1064.3	1083.1	1082.0	0.687	7.471	75.131	14.110	2.176	0.089	0.270	0.016	0.042	0.009	0.000	0.000	0.000	0.000	0.000	1306.06	
27	0.6064	995.6	1013.2	1012.8	0.610	4.000	90.332	4.302	0.624	0.332	0.072	0.007	0.015	0.005	0.000	0.000	0.000	0.000	0.000	1301.17	
28	0.6986	1059.1	1077.9	1077.1	1.192	7.935	72.596	16.470	1.562	0.052	0.151	0.009	0.024	0.008	0.000	0.000	0.000	0.000	0.000	1292.75	
29	0.7838	1131.1	1151.1	1150.0	1.957	10.400	56.748	27.935	2.656	0.066	0.203	0.009	0.022	0.004	0.000	0.000	0.000	0.000	0.000	1300.23	
30	0.7911	1131.2	1151.2	1149.1	2.140	10.805	55.241	28.955	2.580	0.063	0.186	0.008	0.019	0.003	0.000	0.000	0.000	0.000	0.000	1294.32	
31	0.8000	1144.2	1164.5	1162.1	2.283	10.632	53.889	30.013	2.923	0.059	0.175	0.007	0.017	0.002	0.000	0.000	0.000	0.000	0.000	1301.91	
Avg	0.7822	1130.0	1150.1	1149.0	1.951	10.317	57.053	27.770	2.597	0.068	0.207	0.009	0.024	0.004	0.000	0.000	0.000	0.000	0.000	1301.06	

*** End of Report***

Zone 34

GQ Source Analysis

GQ Source Number:	1201140	Specific Gravity:	0.5730
GQ Source Name:	EAGLE 8B ND	BTU Base:	Dry
Effective Date:	6/19/2009 9:00:00 AM	Measured Heat Value:	977.81
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	977.72
Pressure Base:	14.730	Wet Heat Value:	960.70
Viscosity:		As Deliv. Heat Value:	977.72

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	95.826		CO2	Carbon Dioxide	0.096
C2	Ethane	0.305		N2	Nitrogen	3.757
C3	Propane	0.009	0.002	O2	Oxygen	0.000
IC4	Iso-Butane	0.007	0.002	HE	Helium	
NC4	N-Butane	0.000	0.000	H2	Hydrogen	
IC5	Iso-Pentane	0.000	0.000	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.000	0.000	AR	Argon	
C6	Hexane	0.000	0.000	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane					
C9	Nonane					
C10	Decane					
Totals			100.000%			0.005 GPM

Sample Date: 6/12/2009 12:00:00 AM
Sample Type: Spot
Sample Tech: MG
Sample Remarks:

Analysis Remarks:

NORTH DAKOTA HEATING VALUE ZONES		
ZONES	MEASURING DEVICE	LOCATION
211	Chromatograph	Sidney Area
24	Monthly Sampler	Williston Area
25	Monthly Sampler	Watford City Area
261	Chromatograph	Williston – Tioga – Minot Line
262	Chromatograph	Minot Area
263	Monthly Sampler	Tioga – Portal
264	Monthly Sampler	Williston – Ray
271	Chromatograph	Bismarck – Cleveland
272	Chromatograph	Cleveland – Mapleton
273	Chromatograph	Cleveland – Grafton
28	Chromatograph	Bismarck
31	Chromatograph	Dickinson
32	Chromatograph	Cabin Creek – Dickinson
33	Chromatograph	Killdeer
34	Chromatograph	Bowman Area
35	Monthly Sampler	Baker Field – North Dakota

MONTANA DAKOTA UTILITIES CO
NORTH DAKOTA
HEATING VALUE DATA
12 MONTH ACCUMULATIVE AT 14.73 psia, 60 f. DRY

STATE	ZONE	ZONE BOUNDARY	12 MONTH AVERAGE	DEC 09	NOV 09	OCT 09	SEPT 09	AUG 09	JULY 09	JUNE 09	MAY 09	APR 09	MAR 09	FEB 09	JAN 09	ZONE
ND	211	Sidney Area	1153	1152	1191	1187	1192	1195	1202	1203	1200	1170	1100	1019	1021	21
ND	24	Williston Area	1161	1173	1193	1182	1181	1175	1143	1196	1180	1149	1106	1101	1158	24
ND	25	Watford City Area	1128	1131	1129	1121	1123	1130	1125	1134	1130	1128	1128	1128	1130	25
ND	261	Williston - Tioga - Minot Line	1129	1142	1140	1160	1138	1129	1126	1131	1133	1136	1110	1101	1102	261
ND	262	Minot Area	1149	1163	1165	1174	1168	1165	1165	1157	1144	1143	1130	1114	1105	262
ND	263	Tioga - Portal	1116	1090	1113	1126	1138	1141	1141	1127	1122	1098	1092	1099	1103	263
ND	264	Williston - Ray	1161	1173	1193	1182	1181	1175	1143	1196	1180	1149	1106	1101	1158	264
ND	271	Bismarck - Cleveland	1127	1128	1163	1174	1166	1162	1160	1155	1143	1118	1043	1058	1056	271
ND	272	Cleveland - Mapleton	1128	1128	1163	1174	1167	1163	1162	1156	1143	1118	1043	1057	1056	272
ND	273	Cleveland - Grafton	1097	1018	1094	1173	1167	1163	1162	1156	1143	1118	1043	1057	1056	273
ND	28	Bismarck - Cabin Creek	1028	1019	1024	1141	1166	1163	1162	1155	1142	1061	1014	1021	1028	28
ND	31	Dickinson Area	1018	1017	994	1024	1140	1052	998	1044	996	1007	1013	1019	1028	31
ND/MT	32	Cabin Creek - Dickinson	1018	1017	989	994	1140	1040	980	1018	981	997	1013	1019	1027	32
ND	33	Killdeer	1159	1158	1158	1159	1158	1160	1164	1161	1163	1157	1156	1157	1156	33
ND	34	Bowman Area	1165	1150	1169	1174	1174	1172	1170	1148	1148	1167	1172	1164	1168	34
ND	35	Baker Field - North Dakota	976	978	978	978	978	978	978	978	974	974	974	974	974	35

**THERMAL ZONE VARIANCE
DOCUMENTATION**

December 2009

ZONE	BTU VARIANCE	REASON
211	-39	Receipt from Morgan Creek and McKenzie Plant mixing
24	-20	Receipt from Cabin Creek Area
263	-23	Receipt from Cabin Creek Area
264	-20	Receipt from Cabin Creek Area
271	-35	Receipt from Minot and Dickinson Areas mixing
272	-35	Receipt from Minot and Dickinson Areas mixing
273	-36	Receipt from Minot and Dickinson Areas mixing
28	-76	Receipt from Cabin Creek and Dickinson Areas mixing
31	25	Receipt from Cabin Creek Area
32	28	Receipt from Cabin Creek Area