



MONTANA-DAKOTA
UTILITIES CO.

A Division of MDU Resources Group, Inc.

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

December 9, 2010

RECEIVED

DEC 10 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 – October 2010

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 November 2010.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our supplier for the month of October 2010. 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 October 2010.

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
NOV 2010

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
12	314	APPLE VALLEY	271	1.1482
12	327	BISMARCK	28	1.1318
12	343	CARRINGTON	273	1.1482
12	344	CLEVELAND	272	1.1401
12	364	CAVALIER	273	1.1724
12	365	DAWSON	271	1.1401
12	374	FT TOTTEN	273	1.1563
12	375	DEVILS LAKE	273	1.1563
12	379	BARLOW	273	1.1482
12	387	ELDRIDGE	272	1.1482
12	411	GLEN ULLIN	31	1.0276
12	417	GRAFTON	273	1.1805
12	439	HANKINSON	600	1.0719
12	449	JAMESTOWN	272	1.1563
12	463	LANGDON	273	1.1482
12	475	LINTON	802	.9765
12	478	LINCOLN	28	1.1318
12	494	MEDINA	271	1.1401
12	498	MANDAN	28	1.1318
12	524	NEW SALEM	28	1.1079
12	532	NEW ROCKFORD	273	1.1482
12	539	PARK RIVER	273	1.1724
12	574	SANBORN	272	1.1563
12	593	STEELE	271	1.1401
12	598	SHEYENNE	273	1.1563
12	610	TAPPEN	271	1.1401
12	625	VALLEY CITY	272	1.1643
12	629	WALHALLA	273	1.1724
12	647	WILTON	262	1.1240
12	717	SPIRITWOOD	272	1.1563
12	718	FAIRMOUNT	600	1.0697
12	732	MSR SITE	273	1.1482
12	733	PAR SITE	273	1.1482
15	303	ALEXANDER	25	1.0673
15	308	ARNEGARD	25	1.0673

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
NOV 2010

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	318	BEACH	32	.9934
15	319	BELFIELD	32	1.0007
15	323	BERTHOLD	262	1.1240
15	330	BOWMAN	34	1.0668
15	337	BURLINGTON	262	1.1482
15	368	DES LACS	262	1.1320
15	369	DICKINSON	31	1.0202
15	384	EPPING	264	1.1268
15	407	GLADSTONE	31	1.0202
15	413	GOLVA	32	.9789
15	416	GARRISON	262	1.1320
15	429	HEBRON	31	1.0276
15	459	KILLDEER	33	1.1136
15	469	LEFOR	31	1.0202
15	474	LIGNITE	263	1.0655
15	500	MARMARTH	34	1.0747
15	505	MINOT	262	1.1482
15	510	MOTT	31	1.0202
15	512	MAX	262	1.1240
15	522	NEW ENGLAND	31	1.0128
15	540	PALERMO	262	1.1240
15	558	RAY	264	1.1268
15	561	REGENT	31	1.0202
15	563	RHAME	34	1.0590
15	564	RICHARDTON	31	1.0128
15	568	ROSS	261	1.0690
15	572	RUTHVILLE	262	1.1482
15	583	SENTINEL BUTTE	32	.9934
15	588	SOUTH HEART	31	1.0128
15	590	SPRINGBROOK	264	1.1268
15	591	STANLEY	261	1.0767
15	605	SURREY	262	1.1482
15	611	TAYLOR	31	1.0128
15	616	TIOGA	261	1.0690
15	619	TURTLE LAKE	262	1.1320

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
NOV 2010

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	620	TRENTON	24	1.1349
15	624	UNDERWOOD	262	1.1320
15	632	WATFORD CITY	25	1.0673
15	636	WHEELLOCK	264	1.1187
15	637	WHITE EARTH	261	1.0767
15	642	WILLISTON	24	1.1349
15	646	WASHBURN	262	1.1401
15	664	RIVERDALE	262	1.1320
15	691	FAIRVIEW	24	1.1349
15	712	MINOT AFB	262	1.1482
15	743	BAKER FIELD	35	.8980

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

GQ Source Daily Summary October 2010

Number: 251 **Pressure Base:** 14.730 **Contract Day:** 1

Name: SIDNEY AREA **Temperature Base:** **Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7122	1188.8	1209.8	0.052	3.030	70.552	23.345	2.855	0.061	0.096	0.004	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1433.60
2	0.7114	1187.4	1208.5	0.051	3.043	70.717	23.176	2.830	0.066	0.107	0.004	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1432.73
3	0.7108	1185.8	1206.8	0.054	3.078	70.833	23.033	2.821	0.066	0.105	0.004	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1431.38
4	0.7122	1189.1	1210.1	0.051	3.012	70.586	23.319	2.851	0.065	0.107	0.004	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1433.97
5	0.7087	1183.2	1204.2	0.046	3.048	71.085	22.968	2.895	0.059	0.092	0.003	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1430.44
6	0.7093	1184.4	1205.3	0.045	3.041	71.042	22.945	2.759	0.061	0.099	0.004	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1431.16
7	0.7108	1186.6	1207.6	0.048	3.039	70.859	23.017	2.860	0.065	0.103	0.004	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1432.36
8	0.7137	1185.7	1206.7	0.166	3.187	70.600	22.811	3.016	0.077	0.129	0.006	0.005	0.001	0.000	0.000	0.000	0.000	0.000	1428.37
9	0.7171	1190.1	1211.2	0.207	3.171	70.202	22.962	3.209	0.094	0.142	0.006	0.006	0.001	0.000	0.000	0.000	0.000	0.000	1430.34
10	0.7115	1188.4	1209.4	0.057	2.983	70.760	23.137	2.882	0.067	0.105	0.004	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1433.80
11	0.7124	1188.2	1209.2	0.062	3.075	70.748	22.896	3.013	0.077	0.119	0.005	0.005	0.001	0.000	0.000	0.000	0.000	0.000	1432.59
12	0.7143	1191.3	1212.4	0.061	3.056	70.564	22.952	3.123	0.095	0.135	0.006	0.006	0.002	0.000	0.000	0.000	0.000	0.000	1434.53
13	0.7164	1195.5	1216.7	0.058	3.002	70.230	23.248	3.221	0.085	0.141	0.007	0.006	0.002	0.000	0.000	0.000	0.000	0.000	1437.49
14	0.7147	1188.9	1209.9	0.107	3.173	70.392	23.038	3.076	0.089	0.114	0.005	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1431.24
15	0.7126	1187.6	1208.6	0.048	3.145	70.582	23.055	3.015	0.070	0.078	0.003	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1431.78
16	0.7119	1188.4	1209.5	0.045	3.035	70.747	23.012	2.993	0.073	0.087	0.003	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1433.43
17	0.7093	1184.5	1205.5	0.046	3.028	71.009	22.987	2.798	0.054	0.072	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1431.39
18	0.7171	1195.0	1216.2	0.043	3.124	70.101	23.201	3.299	0.082	0.136	0.006	0.006	0.002	0.000	0.000	0.000	0.000	0.000	1436.17
19	0.7145	1192.0	1213.1	0.039	3.067	70.377	23.220	3.097	0.072	0.118	0.005	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1435.16
20	0.7088	1182.5	1203.4	0.041	3.114	70.992	23.033	2.682	0.052	0.080	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1429.41
21	0.7183	1175.7	1196.5	0.591	3.585	70.021	22.588	2.968	0.084	0.148	0.008	0.006	0.001	0.000	0.000	0.000	0.000	0.000	1411.90
22	0.7299	1170.5	1191.3	1.172	4.105	68.888	22.018	3.429	0.127	0.236	0.013	0.011	0.001	0.000	0.000	0.000	0.000	0.000	1394.33
23	0.7281	1170.7	1191.4	1.087	4.049	69.056	22.117	3.320	0.121	0.227	0.012	0.010	0.001	0.000	0.000	0.000	0.000	0.000	1396.32
24	0.7297	1170.9	1191.6	1.160	4.079	68.831	22.219	3.320	0.126	0.241	0.013	0.010	0.001	0.000	0.000	0.000	0.000	0.000	1394.98
25	0.7144	1187.0	1208.0	0.170	3.166	70.336	23.199	2.939	0.069	0.111	0.005	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1429.29
26	0.7114	1187.8	1208.8	0.047	3.030	70.626	23.341	2.796	0.059	0.092	0.004	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1433.12
27	0.7099	1185.6	1206.6	0.041	3.034	70.824	23.224	2.740	0.054	0.079	0.003	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1431.99
28	0.7060	1179.1	1200.0	0.037	3.070	71.127	23.303	2.391	0.031	0.038	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1428.10
29	0.7086	1184.1	1205.1	0.038	3.001	71.029	23.093	2.735	0.043	0.058	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1431.57
30	0.7109	1185.5	1206.5	0.081	3.063	70.737	23.165	2.825	0.050	0.072	0.003	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1430.99
31	0.7074	1181.7	1202.6	0.037	3.039	71.191	22.968	2.663	0.041	0.056	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1429.83
Avg	0.7137	1185.0	1206.2	0.187	3.183	70.505	22.987	2.943	0.072	0.114	0.005	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1427.86

Zone 2/11

GQ Source Analysis

GQ Source Number:	0602330	Specific Gravity:	0.7083
GQ Source Name:	WILLISTON BORDER	BTU Base:	Dry
Effective Date:	10/1/2010 9:00:00 AM	Measured Heat Value:	1195.21
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	1192.49
Pressure Base:	14.730	Wet Heat Value:	1171.74
Viscosity:		As Deliv. Heat Value:	1192.49

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	72.994		CO2	Carbon Dioxide	0.642
C2	Ethane	19.615	0.000	N2	Nitrogen	2.764
C3	Propane	3.509	0.964	O2	Oxygen	0.000
IC4	Iso-Butane	0.138	0.045	HE	Helium	
NC4	N-Butane	0.278	0.088	H2	Hydrogen	
IC5	Iso-Pentane	0.019	0.007	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.022	0.008	AR	Argon	
C6	Hexane	0.014	0.006	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane					
C9	Nonane					
C10	Decane					
Totals			99.995%		1.118 GPM	

Sample Date: 10/31/2010 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler

Sample Remarks:

Analysis Remarks:

Zone 24, 264

GQ Source Analysis

GQ Source Number:	0602230	Specific Gravity:	0.7282
GQ Source Name:	WATFORD CITY BORDER	BTU Base:	Dry
Effective Date:	10/1/2010 9:00:00 AM	Measured Heat Value:	1132.69
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	1130.04
Pressure Base:	14.730	Wet Heat Value:	1110.38
Viscosity:		As Deliv. Heat Value:	1130.04

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	68.502		CO2	Carbon Dioxide	0.654
C2	Ethane	18.170	4.845	N2	Nitrogen	8.375
C3	Propane	3.688	1.013	O2	Oxygen	0.000
IC4	Iso-Butane	0.188	0.061	HE	Helium	
NC4	N-Butane	0.353	0.111	H2	Hydrogen	
IC5	Iso-Pentane	0.029	0.011	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.029	0.011	AR	Argon	
C6	Hexane	0.008	0.004	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane					
C9	Nonane					
C10	Decane					

Totals	99.998%	6.056 GPM
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Sample Date: 10/31/2010 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Remarks:

Zone 25

GQ Source Daily Summary

October 2010

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	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6805	1127.3	1147.2	0.305	3.421	75.885	18.737	1.467	0.048	0.107	0.008	0.010	0.012						1390.68
2	0.6856	1135.4	1155.5	0.337	3.351	75.203	19.211	1.671	0.055	0.127	0.012	0.016	0.016						1395.50
3	0.6865	1137.0	1157.2	0.326	3.354	75.134	19.177	1.761	0.061	0.140	0.013	0.017	0.018						1396.60
4	0.6838	1133.1	1153.2	0.295	3.383	75.565	18.822	1.704	0.058	0.131	0.012	0.015	0.017						1394.56
5	0.6751	1119.6	1139.4	0.224	3.503	76.650	18.196	1.272	0.038	0.086	0.008	0.010	0.015						1386.74
6	0.6581	1095.3	1114.7	0.070	3.624	78.901	16.914	0.444	0.010	0.021	0.001	0.002	0.013						1374.08
7	0.6774	1118.8	1138.6	0.267	3.701	76.436	17.928	1.499	0.047	0.098	0.006	0.006	0.013						1383.40
8	0.6844	1130.5	1150.5	0.349	3.515	75.609	18.415	1.895	0.061	0.129	0.008	0.009	0.010						1390.74
9	0.6831	1130.8	1150.9	0.320	3.415	75.803	18.425	1.810	0.063	0.135	0.009	0.010	0.009						1392.49
10	0.6791	1124.8	1144.8	0.287	3.462	76.320	18.131	1.592	0.055	0.122	0.009	0.010	0.012						1389.11
11	0.6763	1120.1	1139.9	0.290	3.481	76.610	18.091	1.343	0.044	0.102	0.010	0.013	0.013						1386.15
12	0.6784	1123.5	1143.4	0.309	3.444	76.232	18.430	1.421	0.040	0.091	0.009	0.011	0.013						1388.23
13	0.6777	1122.7	1142.6	0.280	3.467	76.460	18.114	1.503	0.044	0.098	0.009	0.011	0.015						1387.99
14	0.6780	1123.2	1143.1	0.288	3.456	76.347	18.296	1.436	0.040	0.094	0.010	0.014	0.018						1388.24
15	0.6815	1128.4	1148.4	0.314	3.427	75.877	18.593	1.591	0.046	0.107	0.012	0.016	0.019						1391.08
16	0.6814	1126.9	1146.9	0.318	3.504	75.893	18.456	1.648	0.043	0.100	0.011	0.014	0.014						1389.33
17	0.6828	1127.0	1146.9	0.332	3.613	75.841	18.157	1.861	0.047	0.107	0.012	0.016	0.015						1387.94
18	0.6794	1121.4	1141.3	0.305	3.667	76.215	18.056	1.564	0.043	0.103	0.012	0.017	0.017						1384.64
19	0.6825	1125.5	1145.4	0.330	3.672	75.773	18.338	1.669	0.048	0.115	0.014	0.019	0.021						1386.50
20	0.6822	1125.0	1144.9	0.332	3.672	75.721	18.499	1.557	0.048	0.117	0.014	0.020	0.020						1386.20
21	0.6788	1120.0	1139.8	0.337	3.653	76.317	17.967	1.539	0.047	0.103	0.009	0.012	0.015						1383.44
22	0.6653	1098.5	1118.0	0.173	3.945	77.868	17.133	0.822	0.017	0.032	0.001	0.001	0.008						1370.66
23	0.6654	1096.9	1116.3	0.206	4.003	77.892	17.000	0.839	0.018	0.033	0.001	0.001	0.007						1368.53
24	0.6617	1091.0	1110.3	0.161	4.084	78.420	16.600	0.685	0.014	0.027	0.001	0.000	0.007						1364.93
25	0.6625	1093.4	1112.8	0.153	4.020	78.277	16.794	0.708	0.014	0.027	0.001	0.001	0.006						1367.22
26	0.6686	1104.0	1123.6	0.250	3.804	77.466	17.421	0.995	0.020	0.037	0.001	0.001	0.005						1374.10
27	0.6756	1114.9	1134.6	0.370	3.613	76.818	17.574	1.498	0.040	0.078	0.004	0.003	0.003						1380.40
28	0.6789	1121.4	1141.2	0.420	3.449	76.837	17.204	1.837	0.068	0.146	0.012	0.015	0.012						1385.02
29	0.6811	1125.7	1145.6	0.361	3.482	76.030	18.281	1.646	0.052	0.115	0.010	0.012	0.010						1388.14
30	0.6798	1123.9	1143.8	0.354	3.479	76.078	18.425	1.491	0.046	0.101	0.008	0.010	0.009						1387.33
31	0.6805	1125.0	1144.9	0.373	3.450	76.013	18.431	1.561	0.048	0.103	0.007	0.008	0.006						1387.92
Avg	0.6772	1120.0	1139.5	0.292	3.584	76.467	18.059	1.430	0.043	0.095	0.008	0.010	0.012						1384.77

Zone 26d

GQ Source Daily Summary

October 2010

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	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT	
1	0.7323	1171.6	1192.4	0.562	5.186	67.835	22.342	3.745	0.097	0.208	0.011	0.011	0.003	0.000	0.000	0.000	0.000	0.000	1393.36	
2	0.7300	1168.4	1189.1	0.567	5.156	68.143	22.239	3.547	0.099	0.216	0.012	0.012	0.011	0.000	0.000	0.000	0.000	0.000	1391.75	
3	0.7306	1171.4	1190.8	0.574	5.019	68.162	22.280	3.597	0.107	0.233	0.013	0.013	0.003	0.000	0.000	0.000	0.000	0.000	1394.73	
4	0.7293	1170.0	1190.1	0.578	4.973	68.228	22.431	3.455	0.096	0.210	0.012	0.013	0.004	0.000	0.000	0.000	0.000	0.000	1394.39	
5	0.7304	1171.8	1192.5	0.583	4.967	68.122	22.443	3.524	0.101	0.226	0.013	0.015	0.005	0.000	0.000	0.000	0.000	0.000	1395.36	
6	0.7311	1172.1	1192.8	0.576	5.024	68.029	22.415	3.608	0.099	0.219	0.012	0.014	0.004	0.000	0.000	0.000	0.000	0.000	1395.05	
7	0.7331	1169.4	1190.1	0.597	5.349	67.513	22.602	3.634	0.089	0.194	0.010	0.010	0.003	0.000	0.000	0.000	0.000	0.000	1389.94	
8	0.7311	1168.3	1189.0	0.546	5.303	67.891	22.345	3.579	0.098	0.214	0.011	0.011	0.003	0.000	0.000	0.000	0.000	0.000	1389.52	
9	0.7267	1162.7	1183.3	0.552	5.223	68.547	21.993	3.367	0.093	0.202	0.010	0.010	0.002	0.000	0.000	0.000	0.000	0.000	1388.04	
10	0.7271	1164.7	1185.4	0.560	5.118	68.646	21.880	3.453	0.101	0.219	0.011	0.011	0.002	0.000	0.000	0.000	0.000	0.000	1390.16	
11	0.7281	1168.3	1189.0	0.580	4.969	68.576	21.983	3.545	0.102	0.221	0.011	0.012	0.002	0.000	0.000	0.000	0.000	0.000	1393.38	
12	0.7282	1167.5	1188.1	0.568	5.045	68.470	22.088	3.486	0.099	0.217	0.012	0.012	0.003	0.000	0.000	0.000	0.000	0.000	1392.33	
13	0.7278	1168.0	1188.7	0.571	4.974	68.539	22.112	3.464	0.097	0.214	0.012	0.014	0.004	0.000	0.000	0.000	0.000	0.000	1393.30	
14	0.7278	1167.0	1187.7	0.568	5.035	68.475	22.160	3.432	0.094	0.208	0.011	0.012	0.003	0.000	0.000	0.000	0.000	0.000	1392.17	
15	0.7297	1169.7	1190.4	0.577	5.037	68.247	22.250	3.536	0.100	0.222	0.013	0.014	0.004	0.000	0.000	0.000	0.000	0.000	1393.54	
16	0.7283	1168.6	1189.2	0.568	4.988	68.425	22.237	3.436	0.097	0.216	0.013	0.015	0.006	0.000	0.000	0.000	0.000	0.000	1393.53	
17	0.7277	1168.1	1188.8	0.568	4.965	68.469	22.265	3.403	0.093	0.207	0.012	0.013	0.005	0.000	0.000	0.000	0.000	0.000	1392.29	
18	0.7273	1166.7	1187.4	0.571	5.002	68.617	22.042	3.423	0.097	0.215	0.013	0.015	0.005	0.000	0.000	0.000	0.000	0.000	1391.95	
19	0.7278	1166.9	1187.5	0.569	5.046	68.539	22.026	3.479	0.096	0.213	0.013	0.014	0.005	0.000	0.000	0.000	0.000	0.000	1391.44	
20	0.7265	1165.3	1186.0	0.573	5.005	68.804	21.861	3.395	0.097	0.223	0.016	0.019	0.008	0.000	0.000	0.000	0.000	0.000	1387.33	
21	0.7245	1164.9	1185.6	0.588	4.826	69.104	21.765	3.434	0.082	0.171	0.011	0.013	0.006	0.000	0.000	0.000	0.000	0.000	1392.83	
22	0.7230	1159.1	1179.6	0.563	5.078	68.937	22.072	3.107	0.070	0.152	0.008	0.009	0.004	0.000	0.000	0.000	0.000	0.000	1387.33	
23	0.7294	1163.8	1184.4	0.584	5.392	68.101	22.109	3.542	0.092	0.185	0.007	0.007	0.002	0.000	0.000	0.000	0.000	0.000	1386.78	
24	0.7350	1174.2	1195.0	0.578	5.256	67.804	21.814	4.162	0.129	0.241	0.008	0.007	0.002	0.000	0.000	0.000	0.000	0.000	1393.85	
25	0.7377	1175.9	1196.7	0.567	5.417	67.443	21.850	4.295	0.139	0.269	0.010	0.009	0.002	0.000	0.000	0.000	0.000	0.000	1393.34	
26	0.7335	1171.4	1192.2	0.560	5.312	67.864	21.900	4.012	0.116	0.219	0.008	0.008	0.002	0.000	0.000	0.000	0.000	0.000	1392.00	
27	0.7288	1169.8	1190.5	0.571	4.954	68.557	21.829	3.797	0.098	0.179	0.006	0.006	0.002	0.000	0.000	0.000	0.000	0.000	1394.51	
28	0.7251	1165.9	1186.5	0.590	4.814	69.550	20.857	3.814	0.117	0.232	0.011	0.012	0.004	0.000	0.000	0.000	0.000	0.000	1393.40	
29	0.7361	1182.9	1203.8	0.594	4.796	68.109	21.677	4.305	0.157	0.325	0.016	0.016	0.005	0.000	0.000	0.000	0.000	0.000	1403.15	
30	0.7351	1179.6	1200.5	0.577	4.929	68.086	21.748	4.169	0.146	0.308	0.016	0.016	0.005	0.000	0.000	0.000	0.000	0.000	1400.24	
31	0.7305	1172.1	1192.8	0.582	4.958	68.360	21.923	3.846	0.100	0.205	0.011	0.011	0.004	0.000	0.000	0.000	0.000	0.000	1395.60	
AVG	0.7297	1169.0	1189.9	0.572	5.068	68.329	22.050	3.632	0.103	0.219	0.011	0.012	0.004	0.000	0.000	0.000	0.000	0.000	1393.02	

Zone 262

GQ Source Analysis

GQ Source Number:	2501030	Specific Gravity:	0.6582
GQ Source Name:	LIGNITE PLANT	BTU Base:	Dry
Effective Date:	10/1/2010 9:00:00 AM	Measured Heat Value:	1122.15
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	1120.32
Pressure Base:	14.730	Wet Heat Value:	1100.82
Viscosity:		As Deliv. Heat Value:	1120.32

		Mol %	GPM			Mol %
C1	Methane	79.442		CO2	Carbon Dioxide	0.132
C2	Ethane	16.145	4.305	N2	Nitrogen	3.166
C3	Propane	1.093	0.300	O2	Oxygen	0.000
IC4	Iso-Butane	0.002	0.001	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	0.018	0.008	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane					
C9	Nonane					
C10	Decane					

Totals 99.997% 4.614 GPM

Sample Date: 10/31/2010 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Remarks:

*** End of Report ***

Zone 263

GQ Source Daily Summary

October 2010

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	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7309	1169.9	1190.6	0.575	5.138	68.013	22.384	3.541	0.097	0.213	0.013	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1392.72
2	0.7293	1169.0	1189.7	0.580	5.043	68.363	22.125	3.523	0.101	0.224	0.014	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1393.06
3	0.7292	1170.5	1191.3	0.587	4.929	68.385	22.240	3.491	0.100	0.223	0.015	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1395.00
4	0.7300	1171.7	1192.4	0.585	4.937	68.271	22.299	3.540	0.100	0.222	0.015	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1395.58
5	0.7308	1171.8	1192.5	0.583	5.005	68.112	22.368	3.579	0.096	0.213	0.014	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1395.00
6	0.7299	1166.2	1186.8	0.591	5.253	68.048	22.330	3.475	0.084	0.184	0.011	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1389.19
7	0.7306	1166.7	1187.4	0.565	5.319	68.036	22.179	3.562	0.095	0.208	0.012	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1389.22
8	0.7267	1163.1	1183.7	0.566	5.175	68.719	21.766	3.431	0.096	0.210	0.012	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1388.59
9	0.7270	1167.0	1187.7	0.582	4.937	68.790	21.854	3.487	0.098	0.215	0.012	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1393.00
10	0.7295	1169.9	1190.6	0.586	4.999	68.370	22.117	3.566	0.102	0.224	0.013	0.014	0.011	0.000	0.000	0.000	0.000	0.000	1393.92
11	0.7288	1168.2	1188.9	0.582	5.035	68.427	22.102	3.499	0.098	0.218	0.013	0.014	0.011	0.000	0.000	0.000	0.000	0.000	1392.68
12	0.7270	1166.5	1187.2	0.575	4.982	68.662	22.042	3.412	0.090	0.199	0.013	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1392.36
13	0.7266	1166.3	1186.9	0.580	4.955	68.650	22.172	3.310	0.091	0.204	0.013	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1392.44
14	0.7283	1167.9	1188.6	0.577	5.018	68.462	22.144	3.455	0.094	0.210	0.013	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1392.74
15	0.7285	1168.5	1189.2	0.576	4.998	68.475	22.121	3.475	0.097	0.216	0.014	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1393.29
16	0.7280	1168.6	1189.3	0.579	4.945	68.482	22.251	3.400	0.092	0.207	0.014	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1393.88
17	0.7275	1168.0	1188.7	0.576	4.940	68.544	22.226	3.379	0.091	0.203	0.013	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1393.60
18	0.7281	1168.0	1188.6	0.583	4.989	68.575	22.008	3.485	0.098	0.219	0.014	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1392.97
19	0.7270	1165.7	1186.4	0.576	5.027	68.695	21.941	3.418	0.092	0.207	0.014	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1391.43
20	0.7263	1166.3	1186.9	0.573	4.938	68.946	21.702	3.475	0.097	0.218	0.016	0.018	0.017	0.000	0.000	0.000	0.000	0.000	1392.69
21	0.7238	1163.5	1184.1	0.595	4.832	69.245	21.676	3.357	0.079	0.172	0.013	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1391.88
22	0.7244	1162.1	1182.7	0.594	4.984	68.938	21.955	3.253	0.076	0.162	0.011	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1389.53
23	0.7278	1162.4	1183.0	0.575	5.312	68.180	22.356	3.321	0.075	0.155	0.008	0.008	0.010	0.000	0.000	0.000	0.000	0.000	1386.68
24	0.7314	1169.1	1189.8	0.566	5.253	68.378	21.426	3.991	0.124	0.236	0.009	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1391.16
25	0.7376	1175.9	1196.8	0.593	5.376	67.452	21.895	4.268	0.133	0.255	0.010	0.010	0.008	0.000	0.000	0.000	0.000	0.000	1393.40
26	0.7362	1175.5	1196.3	0.569	5.313	67.566	22.010	4.144	0.125	0.244	0.011	0.010	0.009	0.000	0.000	0.000	0.000	0.000	1394.16
27	0.7300	1170.3	1191.0	0.569	5.042	68.422	21.796	3.866	0.098	0.183	0.008	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1393.97
28	0.7245	1164.5	1185.1	0.593	4.840	69.509	21.901	3.722	0.103	0.203	0.010	0.010	0.008	0.000	0.000	0.000	0.000	0.000	1392.34
29	0.7330	1179.1	1200.0	0.602	4.730	68.658	21.284	4.226	0.148	0.306	0.016	0.017	0.012	0.000	0.000	0.000	0.000	0.000	1401.61
30	0.7382	1184.9	1205.9	0.586	4.885	67.879	21.689	4.390	0.164	0.351	0.020	0.022	0.014	0.000	0.000	0.000	0.000	0.000	1403.58
31	0.7309	1173.0	1193.8	0.593	4.921	68.273	22.085	3.802	0.095	0.196	0.012	0.012	0.011	0.000	0.000	0.000	0.000	0.000	1396.39
AVG	0.7293	1169.0	1189.7	0.581	5.034	68.436	21.985	3.608	0.101	0.216	0.013	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1393.16

Zone 271

GQ Source Daily Summary

October 2010

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	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7307	1169.8	1190.5	0.567	5.144	68.058	22.288	3.605	0.097	0.213	0.013	0.013	0.001	0.000	0.000	0.000	0.000	0.000	1392.68
2	0.7293	1167.9	1188.5	0.574	5.116	68.296	22.140	3.528	0.099	0.218	0.013	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1391.77
3	0.7296	1170.6	1191.4	0.580	4.963	68.315	22.241	3.538	0.103	0.230	0.015	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1394.82
4	0.7298	1171.6	1192.4	0.586	4.917	68.273	22.350	3.509	0.100	0.224	0.015	0.017	0.009	0.000	0.000	0.000	0.000	0.000	1395.76
5	0.7310	1173.3	1194.0	0.579	4.944	68.124	22.362	3.622	0.103	0.230	0.015	0.017	0.005	0.000	0.000	0.000	0.000	0.000	1396.53
6	0.7293	1168.3	1189.0	0.574	5.094	68.225	22.278	3.505	0.092	0.204	0.013	0.014	0.002	0.000	0.000	0.000	0.000	0.000	1392.25
7	0.7339	1170.1	1190.9	0.603	5.366	67.450	22.579	3.679	0.094	0.205	0.012	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1390.13
8	0.7261	1162.2	1182.8	0.543	5.207	68.649	21.948	3.337	0.092	0.202	0.011	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1388.11
9	0.7269	1164.9	1185.6	0.569	5.080	68.723	21.806	3.476	0.100	0.220	0.013	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1390.53
10	0.7285	1169.2	1189.9	0.592	4.933	68.544	22.013	3.565	0.102	0.224	0.013	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1394.13
11	0.7290	1169.1	1189.9	0.578	5.009	68.414	22.086	3.557	0.102	0.226	0.014	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1393.53
12	0.7265	1165.4	1186.0	0.568	5.013	68.777	21.867	3.432	0.097	0.215	0.014	0.015	0.002	0.000	0.000	0.000	0.000	0.000	1391.50
13	0.7272	1167.4	1188.0	0.580	4.946	68.606	22.140	3.389	0.094	0.211	0.014	0.015	0.006	0.000	0.000	0.000	0.000	0.000	1393.14
14	0.7268	1166.0	1186.6	0.571	5.005	68.646	22.057	3.392	0.093	0.207	0.013	0.014	0.003	0.000	0.000	0.000	0.000	0.000	1391.90
15	0.7296	1169.8	1190.5	0.584	5.010	68.303	22.209	3.533	0.100	0.225	0.015	0.017	0.003	0.000	0.000	0.000	0.000	0.000	1393.82
16	0.7270	1167.2	1187.9	0.569	4.949	68.668	22.072	3.396	0.096	0.214	0.014	0.016	0.007	0.000	0.000	0.000	0.000	0.000	1393.19
17	0.7277	1168.4	1189.1	0.572	4.935	68.532	22.210	3.414	0.093	0.208	0.014	0.015	0.007	0.000	0.000	0.000	0.000	0.000	1393.99
18	0.7270	1168.4	1189.1	0.577	4.977	68.682	22.013	3.406	0.095	0.214	0.015	0.016	0.005	0.000	0.000	0.000	0.000	0.000	1392.35
19	0.7278	1167.4	1188.1	0.570	5.008	68.595	21.990	3.488	0.097	0.217	0.014	0.016	0.004	0.000	0.000	0.000	0.000	0.000	1392.65
20	0.7274	1166.5	1187.2	0.576	5.019	68.697	21.878	3.465	0.098	0.224	0.016	0.018	0.010	0.000	0.000	0.000	0.000	0.000	1391.94
21	0.7228	1160.7	1181.3	0.566	4.958	69.320	21.594	3.242	0.084	0.191	0.015	0.018	0.012	0.000	0.000	0.000	0.000	0.000	1389.46
22	0.7245	1166.1	1186.7	0.602	4.735	69.165	21.776	3.434	0.081	0.171	0.012	0.015	0.010	0.000	0.000	0.000	0.000	0.000	1394.22
23	0.7240	1158.6	1179.1	0.571	5.190	68.685	22.244	3.080	0.066	0.142	0.009	0.010	0.003	0.000	0.000	0.000	0.000	0.000	1385.82
24	0.7295	1164.8	1185.5	0.549	5.356	68.379	21.643	3.731	0.108	0.214	0.010	0.010	0.000	0.000	0.000	0.000	0.000	0.000	1387.97
25	0.7376	1177.9	1198.7	0.601	5.243	67.439	22.046	4.273	0.131	0.248	0.010	0.009	0.000	0.000	0.000	0.000	0.000	0.000	1395.76
26	0.7365	1174.5	1195.3	0.571	5.399	67.658	21.712	4.232	0.138	0.275	0.013	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1392.82
27	0.7318	1170.0	1190.7	0.566	5.236	68.122	21.809	3.930	0.108	0.209	0.010	0.010	0.000	0.000	0.000	0.000	0.000	0.000	1391.87
28	0.7272	1167.9	1188.6	0.586	4.899	68.876	21.594	3.749	0.096	0.183	0.009	0.009	0.000	0.000	0.000	0.000	0.000	0.000	1393.80
29	0.7282	1171.7	1192.4	0.586	4.747	69.273	20.931	4.008	0.134	0.275	0.015	0.016	0.005	0.000	0.000	0.000	0.000	0.000	1397.28
30	0.7373	1184.0	1205.0	0.597	4.842	67.986	21.660	4.366	0.160	0.341	0.020	0.021	0.006	0.000	0.000	0.000	0.000	0.000	1403.33
31	0.7317	1174.8	1195.6	0.583	4.904	68.408	21.744	3.950	0.120	0.255	0.015	0.016	0.005	0.000	0.000	0.000	0.000	0.000	1397.70
AVG	0.7291	1169.0	1189.5	0.578	5.037	68.448	21.977	3.607	0.102	0.220	0.013	0.014	0.003	0.000	0.000	0.000	0.000	0.000	1393.06

Zone 272

GQ Source Daily Summary

October 2010

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	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7308	1170.0	1190.7	0.568	5.142	68.037	22.304	3.610	0.097	0.214	0.013	0.013	0.001	0.000	0.000	0.000	0.000	0.000	1392.82
2	0.7292	1167.8	1188.5	0.575	5.109	68.307	22.143	3.521	0.099	0.219	0.013	0.014	0.001	0.000	0.000	0.000	0.000	0.000	1391.83
3	0.7297	1171.0	1191.7	0.580	4.962	68.283	22.267	3.545	0.103	0.230	0.014	0.015	0.000	0.000	0.000	0.000	0.000	0.000	1395.02
4	0.7297	1171.5	1192.2	0.586	4.921	68.281	22.339	3.508	0.100	0.224	0.015	0.017	0.008	0.000	0.000	0.000	0.000	0.000	1395.63
5	0.7311	1173.4	1194.1	0.581	4.940	68.118	22.366	3.625	0.103	0.230	0.016	0.017	0.005	0.000	0.000	0.000	0.000	0.000	1396.58
6	0.7293	1168.3	1189.0	0.570	5.095	68.238	22.267	3.507	0.092	0.204	0.013	0.013	0.002	0.000	0.000	0.000	0.000	0.000	1392.32
7	0.7343	1170.9	1191.6	0.599	5.365	67.390	22.615	3.708	0.094	0.205	0.012	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1390.61
8	0.7262	1162.2	1182.8	0.545	5.219	68.630	21.949	3.342	0.092	0.201	0.011	0.011	0.000	0.000	0.000	0.000	0.000	0.000	1387.94
9	0.7273	1165.6	1186.2	0.569	5.074	68.681	21.826	3.502	0.101	0.221	0.013	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1390.95
10	0.7286	1169.3	1190.0	0.593	4.932	68.532	22.025	3.566	0.102	0.224	0.013	0.013	0.000	0.000	0.000	0.000	0.000	0.000	1394.19
11	0.7291	1169.2	1189.9	0.577	5.009	68.407	22.091	3.560	0.102	0.226	0.014	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1393.59
12	0.7265	1165.3	1186.0	0.569	5.018	68.775	21.861	3.434	0.097	0.216	0.014	0.014	0.002	0.000	0.000	0.000	0.000	0.000	1391.40
13	0.7271	1167.2	1187.9	0.580	4.946	68.619	22.135	3.381	0.094	0.210	0.014	0.015	0.006	0.000	0.000	0.000	0.000	0.000	1393.04
14	0.7273	1166.6	1187.2	0.574	5.012	68.584	22.077	3.419	0.095	0.210	0.013	0.013	0.003	0.000	0.000	0.000	0.000	0.000	1392.11
15	0.7298	1170.1	1190.8	0.584	5.010	68.277	22.226	3.542	0.100	0.226	0.015	0.016	0.002	0.000	0.000	0.000	0.000	0.000	1393.98
16	0.7271	1167.5	1188.2	0.569	4.947	68.649	22.085	3.403	0.096	0.215	0.014	0.016	0.007	0.000	0.000	0.000	0.000	0.000	1393.36
17	0.7277	1168.6	1189.2	0.572	4.932	68.528	22.213	3.418	0.093	0.208	0.014	0.015	0.007	0.000	0.000	0.000	0.000	0.000	1392.63
18	0.7270	1166.7	1187.4	0.572	4.973	68.676	22.021	3.414	0.095	0.213	0.015	0.016	0.004	0.000	0.000	0.000	0.000	0.000	1392.83
19	0.7280	1167.7	1188.4	0.572	5.006	68.562	22.018	3.494	0.097	0.217	0.015	0.016	0.004	0.000	0.000	0.000	0.000	0.000	1392.20
20	0.7274	1166.7	1187.4	0.572	5.013	68.680	21.910	3.459	0.098	0.223	0.016	0.018	0.010	0.000	0.000	0.000	0.000	0.000	1389.66
21	0.7235	1161.4	1182.0	0.573	4.966	69.251	21.594	3.289	0.086	0.196	0.015	0.018	0.012	0.000	0.000	0.000	0.000	0.000	1394.18
22	0.7246	1166.2	1186.8	0.605	4.737	69.152	21.775	3.442	0.081	0.171	0.012	0.015	0.010	0.000	0.000	0.000	0.000	0.000	1385.99
23	0.7241	1158.9	1179.4	0.571	5.186	68.682	22.241	3.080	0.068	0.150	0.009	0.010	0.003	0.000	0.000	0.000	0.000	0.000	1388.34
24	0.7299	1165.5	1186.1	0.584	5.349	68.320	21.680	3.754	0.108	0.216	0.010	0.009	0.000	0.000	0.000	0.000	0.000	0.000	1396.10
25	0.7380	1178.5	1199.3	0.602	5.242	67.392	22.065	4.301	0.132	0.248	0.010	0.009	0.000	0.000	0.000	0.000	0.000	0.000	1393.12
26	0.7367	1175.0	1195.8	0.567	5.389	67.623	21.735	4.250	0.138	0.273	0.013	0.012	0.000	0.000	0.000	0.000	0.000	0.000	1392.55
27	0.7323	1171.0	1191.7	0.567	5.223	68.056	21.857	3.959	0.108	0.210	0.010	0.010	0.000	0.000	0.000	0.000	0.000	0.000	1393.78
28	0.7270	1167.8	1188.4	0.583	4.896	68.903	21.575	3.746	0.096	0.183	0.008	0.008	0.000	0.000	0.000	0.000	0.000	0.000	1397.77
29	0.7287	1172.4	1193.2	0.597	4.741	69.215	20.971	4.030	0.134	0.276	0.015	0.016	0.004	0.000	0.000	0.000	0.000	0.000	1403.63
30	0.7376	1184.5	1205.5	0.598	4.837	67.933	21.712	4.372	0.159	0.342	0.019	0.021	0.005	0.000	0.000	0.000	0.000	0.000	1398.09
31	0.7319	1175.3	1196.1	0.579	4.899	68.373	21.777	3.962	0.120	0.254	0.015	0.016	0.005	0.000	0.000	0.000	0.000	0.000	1398.09
Avg	0.7293	1169.0	1189.8	0.577	5.035	68.424	21.991	3.617	0.103	0.221	0.013	0.014	0.003	0.000	0.000	0.000	0.000	0.000	1393.24

Zone 273

GQ Source Daily Summary

October 2010

Number: 041		Pressure Base: 14.730										Contract Day: 1							
Name: BISMARCK-DICKINSON		Temperature Base:										Contract Hour: 9							
Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7310	1170.3	1191.0	0.575	5.133	67.986	22.409	3.547	0.097	0.214	0.013	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1392.98
2	0.7295	1169.4	1190.1	0.581	5.037	68.335	22.147	3.535	0.101	0.223	0.014	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1393.34
3	0.7294	1171.0	1191.7	0.587	4.921	68.357	22.266	3.502	0.099	0.222	0.015	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1395.34
4	0.7298	1171.3	1192.1	0.585	4.939	68.301	22.276	3.530	0.100	0.223	0.015	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1395.39
5	0.7305	1171.3	1192.0	0.583	5.010	68.158	22.326	3.567	0.097	0.216	0.014	0.015	0.015	0.000	0.000	0.000	0.000	0.000	1394.66
6	0.7300	1166.4	1187.1	0.589	5.245	68.047	22.332	3.483	0.084	0.184	0.011	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1389.43
7	0.7309	1167.3	1187.9	0.567	5.316	67.986	22.208	3.584	0.095	0.208	0.012	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1389.52
8	0.7267	1163.2	1183.8	0.566	5.170	68.716	21.777	3.427	0.096	0.211	0.012	0.012	0.012	0.000	0.000	0.000	0.000	0.000	1388.69
9	0.7269	1166.9	1187.6	0.581	4.943	68.786	21.866	3.475	0.098	0.214	0.012	0.013	0.012	0.000	0.000	0.000	0.000	0.000	1392.87
10	0.7295	1169.8	1190.5	0.587	4.997	68.376	22.115	3.562	0.102	0.224	0.013	0.014	0.011	0.000	0.000	0.000	0.000	0.000	1393.88
11	0.7295	1169.4	1190.1	0.582	5.028	68.312	22.204	3.520	0.098	0.218	0.013	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1393.42
12	0.7263	1166.7	1187.4	0.559	4.926	68.839	21.902	3.440	0.088	0.206	0.013	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1393.31
13	0.7269	1166.5	1187.2	0.581	4.961	68.616	22.187	3.321	0.091	0.203	0.013	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1392.48
14	0.7290	1169.4	1190.1	0.577	4.998	68.346	22.256	3.475	0.095	0.212	0.013	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1393.79
15	0.7287	1168.9	1189.6	0.578	4.999	68.429	22.157	3.484	0.096	0.214	0.014	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1393.49
16	0.7278	1168.2	1188.9	0.578	4.948	68.524	22.215	3.392	0.092	0.206	0.014	0.016	0.015	0.000	0.000	0.000	0.000	0.000	1393.63
17	0.7276	1168.0	1188.7	0.577	4.942	68.536	22.230	3.377	0.092	0.204	0.014	0.015	0.014	0.000	0.000	0.000	0.000	0.000	1393.58
18	0.7283	1168.1	1188.8	0.583	4.990	68.542	22.044	3.480	0.098	0.218	0.014	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1393.06
19	0.7272	1166.2	1186.8	0.576	5.023	68.666	21.960	3.426	0.094	0.211	0.014	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1391.73
20	0.7258	1165.4	1186.0	0.574	4.943	68.976	21.741	3.401	0.094	0.219	0.016	0.018	0.016	0.000	0.000	0.000	0.000	0.000	1392.10
21	0.7179	1157.2	1177.6	0.556	4.727	70.249	20.974	3.216	0.076	0.160	0.012	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1389.90
22	0.7232	1161.1	1181.7	0.584	4.944	69.155	21.815	3.224	0.075	0.165	0.011	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1392.10
23	0.6814	1109.9	1191.6	0.362	4.466	76.391	16.331	2.268	0.058	0.107	0.006	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1389.51
24	0.7245	1160.6	1181.2	0.540	5.150	69.562	20.578	3.805	0.117	0.221	0.009	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1368.49
25	0.7381	1176.6	1197.4	0.594	5.381	67.394	21.907	4.309	0.133	0.254	0.010	0.010	0.008	0.000	0.000	0.000	0.000	0.000	1387.74
26	0.6838	1115.3	1135.1	0.319	4.429	76.161	16.367	2.509	0.071	0.128	0.006	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1393.72
27	0.6660	1095.3	1114.7	0.240	4.093	79.048	14.541	1.943	0.048	0.076	0.004	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1372.68
28	0.6691	1095.5	1114.9	0.347	4.219	78.727	14.429	2.107	0.058	0.098	0.006	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1365.98
29	0.7022	1138.9	1159.1	0.481	4.470	73.608	17.828	3.255	0.109	0.217	0.011	0.012	0.009	0.000	0.000	0.000	0.000	0.000	1362.91
30	0.6586	1082.5	1101.7	0.286	4.108	80.551	13.070	1.813	0.057	0.099	0.006	0.006	0.004	0.000	0.000	0.000	0.000	0.000	1383.16
31	0.6602	1085.7	1104.9	0.282	4.075	80.136	13.571	1.801	0.046	0.074	0.005	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1357.57
Avg	0.7160	1153.0	1173.4	0.521	4.856	70.639	20.453	3.219	0.089	0.189	0.011	0.012	0.011	0.000	0.000	0.000	0.000	0.000	1386.72

Zone 28

GQ Source Daily Summary

October 2010

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	NZ	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6463	1070.1	1089.0	0.208	3.825	82.269	12.321	1.321	0.023	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1354.62
2	0.6487	1074.3	1093.4	0.151	3.875	81.872	12.595	1.424	0.032	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1357.50
3	0.6464	1070.3	1089.2	0.164	3.887	82.318	12.164	1.382	0.033	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1354.75
4	0.6468	1070.9	1089.8	0.159	3.899	82.228	12.238	1.390	0.034	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1355.07
5	0.6450	1068.5	1087.4	0.166	3.861	82.548	12.012	1.333	0.032	0.048	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1353.99
6	0.6456	1070.0	1089.0	0.151	3.844	82.401	12.210	1.318	0.032	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1355.34
7	0.6460	1070.5	1089.4	0.148	3.861	82.345	12.216	1.351	0.032	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1355.44
8	0.6424	1064.3	1083.2	0.176	3.859	83.026	11.586	1.278	0.031	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1351.38
9	0.6486	1078.1	1097.2	0.155	3.626	81.688	13.268	1.194	0.027	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1362.43
10	0.6538	1087.3	1106.6	0.108	3.631	80.575	14.415	1.206	0.025	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1368.55
11	0.6346	1056.6	1075.3	0.346	3.338	84.294	11.211	0.773	0.014	0.024	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1349.75
12	0.6503	1089.4	1108.6	0.240	2.983	80.859	15.262	0.636	0.007	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1374.53
13	0.6325	1049.7	1068.3	0.363	3.533	84.876	10.271	0.901	0.021	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1343.06
14	0.6435	1066.6	1085.5	0.205	3.774	82.983	11.567	1.382	0.035	0.055	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1353.19
15	0.6456	1069.2	1088.1	0.163	3.883	82.513	11.933	1.424	0.037	0.047	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1354.20
16	0.6489	1074.4	1093.4	0.134	3.920	81.816	12.595	1.463	0.034	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1357.32
17	0.6505	1078.2	1097.3	0.141	3.821	81.579	12.882	1.496	0.037	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1360.55
18	0.6496	1076.5	1095.6	0.149	3.833	81.707	12.779	1.453	0.032	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1359.29
19	0.6492	1075.0	1094.0	0.148	3.887	81.926	12.387	1.553	0.039	0.060	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1357.80
20	0.6475	1072.2	1091.2	0.148	3.894	82.122	12.335	1.416	0.034	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1356.07
21	0.6435	1066.0	1084.9	0.184	3.841	82.876	11.692	1.328	0.032	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1352.44
22	0.6424	1063.3	1082.1	0.184	3.900	83.091	11.422	1.327	0.032	0.044	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1350.14
23	0.6472	1071.9	1090.9	0.153	3.868	82.201	12.243	1.385	0.031	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1355.95
24	0.6467	1071.4	1090.4	0.155	3.865	82.211	12.316	1.385	0.028	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1355.83
25	0.6489	1074.8	1093.9	0.153	3.863	81.812	12.672	1.427	0.030	0.042	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1357.91
26	0.6490	1075.0	1094.0	0.149	3.871	81.857	12.564	1.477	0.033	0.049	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1357.94
27	0.6421	1063.1	1081.9	0.193	3.877	83.128	11.422	1.303	0.032	0.045	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1350.17
28	0.6357	1052.0	1070.7	0.212	3.917	84.352	10.243	1.205	0.031	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1342.86
29	0.6375	1055.8	1074.5	0.199	3.880	83.929	10.751	1.180	0.027	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1345.72
30	0.6403	1061.0	1079.8	0.193	3.835	83.482	11.134	1.287	0.031	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1349.40
31	0.6393	1058.3	1077.0	0.208	3.883	83.687	10.870	1.280	0.031	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1347.01
AVG	0.6450	1069.0	1088.1	0.181	3.795	82.535	12.115	1.302	0.030	0.043	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1354.84

Zone 31

GQ Source Daily Summary

October 2010

Number: 051 **Pressure Base:** 14.730 **Contract Day:** 1
Name: CABIN CR-DICKINSON **Temperature Base:** **Contract Hour:** 9

Day	Relative Density		Heating Value		CCT															
	Wet	Dry	Wet	Dry	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT	
1	0.6480	1070.4	1089.4	1089.4	4.009	82.183	12.011	1.519	0.037	0.055	0.003	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1353.36	
2	0.6449	1065.4	1084.3	1084.3	4.013	82.775	11.449	1.468	0.039	0.058	0.003	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1350.18	
3	0.6447	1065.1	1084.0	1084.0	4.018	82.785	11.467	1.442	0.038	0.057	0.003	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1350.03	
4	0.6440	1064.2	1083.0	1083.0	3.995	82.958	11.302	1.447	0.039	0.057	0.003	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1349.58	
5	0.6425	1062.4	1081.2	1081.2	3.983	83.172	11.173	1.390	0.038	0.053	0.003	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1348.84	
6	0.6438	1064.5	1083.3	1083.3	3.991	82.932	11.395	1.411	0.038	0.054	0.003	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1350.17	
7	0.6424	1062.2	1081.0	1081.0	3.985	83.214	11.116	1.401	0.038	0.054	0.003	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1348.67	
8	0.6441	1063.9	1082.7	1082.7	4.049	82.910	11.309	1.452	0.038	0.058	0.003	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1349.08	
9	0.6133	1011.3	1029.2	1029.2	3.771	88.934	5.853	0.811	0.025	0.039	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1314.20	
10	0.5979	985.3	1002.8	1002.8	3.648	91.862	3.262	0.449	0.016	0.025	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1296.83	
11	0.5981	986.0	1003.4	1003.4	3.653	91.785	3.358	0.441	0.015	0.023	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1297.42	
12	0.6452	1065.7	1084.5	1084.5	3.990	82.834	11.325	1.518	0.049	0.065	0.003	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1350.04	
13	0.6429	1062.6	1081.4	1081.4	3.943	83.273	10.964	1.479	0.041	0.067	0.004	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1348.66	
14	0.6415	1059.6	1078.4	1078.4	3.991	83.496	10.733	1.449	0.042	0.056	0.003	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1346.40	
15	0.6480	1070.2	1089.2	1089.2	4.066	82.209	11.886	1.588	0.042	0.050	0.003	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1353.04	
16	0.6478	1071.0	1090.0	1090.0	3.979	82.247	11.948	1.561	0.042	0.050	0.003	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1354.24	
17	0.6477	1071.4	1090.4	1090.4	3.936	82.228	12.054	1.521	0.037	0.046	0.003	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1354.86	
18	0.6481	1071.2	1090.1	1090.1	3.989	82.312	11.765	1.639	0.044	0.067	0.004	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1354.09	
19	0.6460	1067.4	1086.3	1086.3	4.012	82.657	11.477	1.561	0.043	0.064	0.004	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1351.59	
20	0.6445	1065.2	1084.1	1084.1	4.020	82.793	11.484	1.437	0.037	0.052	0.003	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1350.32	
21	0.6333	1044.9	1063.5	1063.5	4.105	84.960	9.340	1.269	0.036	0.049	0.004	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1336.22	
22	0.6454	1066.7	1085.6	1085.6	3.959	82.765	11.424	1.546	0.039	0.054	0.003	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1351.27	
23	0.6439	1064.0	1082.8	1082.8	4.008	82.987	11.231	1.494	0.036	0.049	0.003	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1349.43	
24	0.6461	1067.4	1086.3	1086.3	4.010	82.555	11.640	1.515	0.036	0.050	0.003	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1351.42	
25	0.6458	1067.2	1086.1	1086.1	4.022	82.574	11.643	1.496	0.035	0.050	0.003	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1351.42	
26	0.6478	1070.8	1089.8	1089.8	3.969	82.257	11.954	1.540	0.038	0.055	0.003	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1354.04	
27	0.6365	1051.4	1070.0	1070.0	4.003	84.367	10.001	1.294	0.037	0.050	0.004	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1341.17	
28	0.6353	1049.0	1067.6	1067.6	4.037	84.528	9.871	1.241	0.034	0.044	0.004	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1339.43	
29	0.6367	1052.0	1070.7	1070.7	4.001	84.256	10.176	1.261	0.033	0.041	0.003	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1341.83	
30	0.6397	1057.6	1076.3	1076.3	3.953	83.744	10.636	1.354	0.036	0.047	0.004	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1345.69	
31	0.6375	1053.7	1072.3	1072.3	3.968	84.159	10.240	1.309	0.036	0.045	0.004	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1343.01	
AVG	0.6395	1056.0	1075.1	1075.1	3.970	83.829	10.500	1.365	0.036	0.051	0.003	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1344.40	

Zone 3a

GQ Source Daily Summary

October 2010

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	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6845	1157.7	1178.2	0.000	2.410	73.570	23.524	0.483	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.10
2	0.6858	1160.0	1180.5	0.000	2.395	73.381	23.654	0.557	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.52
3	0.6847	1158.1	1178.6	0.000	2.411	73.524	23.563	0.489	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.30
4	0.6852	1158.7	1179.2	0.000	2.416	73.480	23.554	0.536	0.005	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.59
5	0.6858	1159.8	1180.3	0.000	2.403	73.454	23.514	0.609	0.007	0.011	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1425.32
6	0.6839	1156.7	1177.2	0.000	2.412	73.730	23.329	0.517	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.53
7	0.6853	1158.8	1179.3	0.000	2.423	73.515	23.442	0.608	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.57
8	0.6840	1156.4	1176.9	0.000	2.442	73.688	23.355	0.503	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.02
9	0.6848	1157.8	1178.3	0.000	2.434	73.551	23.461	0.541	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.91
10	0.6838	1156.0	1176.4	0.000	2.449	73.744	23.277	0.517	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.70
11	0.6831	1154.8	1175.2	0.000	2.464	73.870	23.134	0.521	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.88
12	0.6829	1155.2	1175.6	0.000	2.417	73.860	23.259	0.452	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.62
13	0.6861	1160.4	1180.9	0.000	2.398	73.482	23.395	0.700	0.010	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.71
14	0.6851	1158.8	1179.3	0.000	2.397	73.574	23.417	0.594	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.87
15	0.6854	1159.1	1179.6	0.000	2.409	73.472	23.543	0.559	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.89
16	0.6857	1159.7	1180.2	0.000	2.408	73.430	23.549	0.597	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.23
17	0.6842	1157.2	1177.7	0.000	2.418	73.701	23.309	0.555	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.71
18	0.6850	1158.5	1178.5	0.000	2.409	73.547	23.471	0.556	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.57
19	0.6847	1158.0	1178.0	0.000	2.415	73.599	23.411	0.558	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.22
20	0.6858	1159.6	1180.2	0.000	2.419	73.372	23.639	0.554	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.09
21	0.6851	1157.9	1178.4	0.000	2.459	73.512	23.464	0.542	0.008	0.012	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1423.68
22	0.6858	1159.2	1179.7	0.000	2.441	73.446	23.472	0.624	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.58
23	0.6864	1160.3	1180.9	0.000	2.430	73.326	23.599	0.628	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.33
24	0.6851	1158.1	1178.6	0.000	2.442	73.567	23.370	0.604	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.98
25	0.6852	1158.4	1179.0	0.000	2.436	73.460	23.564	0.524	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.23
26	0.6838	1156.6	1177.1	0.000	2.414	73.708	23.388	0.475	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.45
27	0.6835	1156.0	1176.4	0.000	2.426	73.775	23.297	0.487	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.96
28	0.6851	1158.3	1178.8	0.000	2.432	73.521	23.470	0.561	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.20
29	0.6848	1157.8	1178.3	0.000	2.432	73.722	23.184	0.597	0.016	0.034	0.005	0.006	0.004	0.000	0.000	0.000	0.000	0.000	1423.91
30	0.6852	1158.7	1179.3	0.000	2.411	73.478	23.569	0.526	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.66
31	0.6833	1155.5	1176.0	0.000	2.430	73.861	23.167	0.527	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.68
Avg	0.6848	1158.0	1178.5	0.000	2.423	73.578	23.430	0.552	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.13

Zone 33

GQ Source Daily Summary

October 2010

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	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.8013	1145.3	1165.6	2.162	10.873	53.525	30.247	2.891	0.067	0.204	0.008	0.020	0.002	0.000	0.000	0.000	0.000	0.000	1302.09
2	0.8022	1144.3	1164.5	2.388	10.681	53.450	30.383	2.831	0.061	0.180	0.007	0.017	0.001	0.000	0.000	0.000	0.000	0.000	1300.20
3	0.8010	1138.3	1158.5	2.359	10.967	53.750	29.731	2.914	0.063	0.189	0.007	0.019	0.002	0.000	0.000	0.000	0.000	0.000	1294.45
4	0.7987	1141.7	1161.9	2.096	10.947	53.952	29.825	2.899	0.063	0.190	0.007	0.019	0.002	0.000	0.000	0.000	0.000	0.000	1300.12
5	0.8010	1144.9	1165.2	2.080	10.988	53.890	29.504	3.186	0.078	0.238	0.010	0.025	0.002	0.000	0.000	0.000	0.000	0.000	1301.91
6	0.7996	1141.3	1161.5	2.103	11.041	53.814	29.811	2.949	0.063	0.190	0.008	0.019	0.002	0.000	0.000	0.000	0.000	0.000	1298.99
7	0.8004	1144.2	1164.5	2.110	10.932	53.766	29.889	3.001	0.067	0.204	0.008	0.021	0.002	0.000	0.000	0.000	0.000	0.000	1301.59
8	0.8006	1142.6	1162.9	2.136	11.012	53.757	29.773	3.005	0.069	0.213	0.009	0.023	0.003	0.000	0.000	0.000	0.000	0.000	1299.59
9	0.8012	1143.9	1164.2	2.122	11.007	53.586	30.010	2.961	0.070	0.213	0.008	0.021	0.002	0.000	0.000	0.000	0.000	0.000	1300.61
10	0.8015	1143.9	1164.1	2.136	11.015	53.546	30.014	2.981	0.068	0.208	0.008	0.021	0.002	0.000	0.000	0.000	0.000	0.000	1300.34
11	0.8002	1143.0	1163.2	2.079	11.038	53.654	30.010	2.927	0.065	0.198	0.008	0.020	0.002	0.000	0.000	0.000	0.000	0.000	1300.35
12	0.7992	1138.0	1158.1	2.054	11.285	53.702	29.821	2.865	0.062	0.185	0.007	0.018	0.001	0.000	0.000	0.000	0.000	0.000	1295.48
13	0.7987	1140.9	1161.1	2.008	11.130	53.807	29.887	2.903	0.060	0.180	0.007	0.018	0.002	0.000	0.000	0.000	0.000	0.000	1299.21
14	0.8006	1143.1	1163.4	2.095	11.038	53.669	29.914	2.990	0.065	0.199	0.008	0.021	0.002	0.000	0.000	0.000	0.000	0.000	1300.22
15	0.8003	1145.1	1165.4	2.089	10.898	53.769	29.945	2.990	0.071	0.207	0.008	0.021	0.002	0.000	0.000	0.000	0.000	0.000	1302.71
16	0.8011	1141.6	1161.8	2.200	11.018	53.689	29.799	2.991	0.067	0.206	0.008	0.021	0.002	0.000	0.000	0.000	0.000	0.000	1298.09
17	0.8016	1143.5	1163.7	2.180	10.983	53.506	30.090	2.950	0.065	0.198	0.008	0.019	0.001	0.000	0.000	0.000	0.000	0.000	1299.79
18	0.8023	1143.9	1164.2	2.195	10.994	53.465	30.036	3.002	0.068	0.209	0.008	0.020	0.001	0.000	0.000	0.000	0.000	0.000	1299.77
19	0.7997	1139.2	1159.4	2.136	11.134	53.695	29.887	2.878	0.061	0.182	0.007	0.017	0.001	0.000	0.000	0.000	0.000	0.000	1296.47
20	0.7982	1141.5	1161.7	2.035	11.010	53.856	30.006	2.840	0.058	0.172	0.006	0.016	0.001	0.000	0.000	0.000	0.000	0.000	1300.26
21	0.7982	1144.1	1164.4	1.838	11.151	53.604	30.352	2.801	0.058	0.172	0.007	0.017	0.002	0.000	0.000	0.000	0.000	0.000	1303.23
22	0.7976	1138.7	1158.8	2.047	11.105	53.992	29.783	2.788	0.064	0.193	0.007	0.019	0.002	0.000	0.000	0.000	0.000	0.000	1297.55
23	0.8013	1146.4	1166.7	2.207	10.738	53.567	30.312	2.879	0.066	0.201	0.008	0.020	0.002	0.000	0.000	0.000	0.000	0.000	1303.36
24	0.8028	1146.8	1167.1	2.235	10.809	53.497	30.069	3.093	0.067	0.202	0.008	0.019	0.001	0.000	0.000	0.000	0.000	0.000	1302.59
25	0.7990	1140.8	1161.0	2.090	11.042	53.875	29.802	2.902	0.066	0.196	0.008	0.019	0.001	0.000	0.000	0.000	0.000	0.000	1298.86
26	0.8006	1142.0	1162.3	2.183	10.974	53.632	30.040	2.889	0.064	0.191	0.007	0.018	0.001	0.000	0.000	0.000	0.000	0.000	1298.97
27	0.7998	1140.1	1160.3	2.142	11.084	53.745	29.839	2.908	0.064	0.190	0.007	0.019	0.001	0.000	0.000	0.000	0.000	0.000	1297.35
28	0.8003	1145.9	1166.2	2.077	10.821	53.698	30.094	2.968	0.065	0.196	0.008	0.020	0.001	0.000	0.000	0.000	0.000	0.000	1303.57
29	0.8014	1148.3	1168.6	2.083	10.875	53.513	30.306	2.979	0.066	0.201	0.008	0.020	0.002	0.000	0.000	0.000	0.000	0.000	1305.38
30	0.8012	1145.7	1166.0	2.092	10.945	53.524	30.176	2.968	0.066	0.200	0.008	0.020	0.002	0.000	0.000	0.000	0.000	0.000	1302.66
31	0.8007	1143.8	1164.0	2.103	11.000	53.605	30.057	2.944	0.066	0.197	0.008	0.020	0.002	0.000	0.000	0.000	0.000	0.000	1300.84
Avg	0.8004	1143.0	1163.2	2.125	10.985	53.681	29.981	2.938	0.065	0.197	0.008	0.020	0.002	0.000	0.000	0.000	0.000	0.000	1300.21

*** End of Report ***

Zone 34

GQ Source Analysis

GQ Source Number:	1201140	Specific Gravity:	0.5725
GQ Source Name:	EAGLE 8B ND	BTU Base:	Dry
Effective Date:	6/7/2010 9:00:00 AM	Measured Heat Value:	979.18
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	979.09
Pressure Base:	14.730	Wet Heat Value:	962.05
Viscosity:		As Deliv. Heat Value:	979.09

		Mol %	GPM			Mol %
C1	Methane	95.949		CO2	Carbon Dioxide	0.088
C2	Ethane	0.311	0.083	N2	Nitrogen	3.635
C3	Propane	0.009	0.003	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%	0.088 GPM			

Sample Date: 6/7/2010 12:00:00 AM
Sample Type: Spot
Sample Tech: MG
Sample Remarks:

Analysis Remarks:

Zone 35

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	Yearly 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	OCT 10	SEPT 10	AUG 10	JULY 10	JUNE 10	MAY 10	APR 10	MAR 10	FEB 10	JAN 10	DEC 09	NOV 09	ZONE
MT/ND	211	Sidney Area	1187	1206	1209	1208	1204	1197	1199	1197	1193	1132	1155	1152	1191	21
ND	24	Williston Area	1189	1193	1200	1212	1208	1171	1186	1192	1200	1161	1176	1173	1193	24
ND	25	Watford City Area	1130	1130	1133	1129	1130	1134	1132	1128	1132	1125	1132	1131	1129	25
ND	261	Williston - Tloga - Minot Line	1147	1140	1145	1161	1160	1147	1134	1150	1156	1144	1141	1142	1140	261
ND	262	Minot Area	1179	1190	1191	1189	1193	1188	1187	1184	1175	1164	1163	1163	1165	262
ND	263	Tloga - Portal	1105	1120	1133	1127	1124	1104	1102	1110	1090	1078	1073	1090	1113	263
ND	271	Williston - Ray	1189	1193	1200	1212	1208	1171	1186	1192	1200	1161	1176	1173	1193	271
ND	272	Bismarck - Cleveland	1168	1190	1191	1187	1193	1186	1185	1183	1164	1117	1135	1128	1163	272
ND	273	Cleveland - Mapleton	1168	1190	1190	1187	1193	1187	1186	1182	1163	1115	1134	1128	1163	273
ND	28	Cleveland - Grafton	1124	1173	1191	1187	1193	1187	1174	1178	1055	1023	1025	1018	1094	28
ND	31	Bismarck - Cabin Creek	1039	1088	1056	1065	1023	1053	1066	1033	1029	1023	1025	1018	994	31
ND/MT	32	Cabin Creek Area	1020	1075	1040	1031	986	1043	1005	986	1022	1021	1017	1019	989	32
ND	33	Killdeer	1168	1179	1179	1177	1177	1172	1169	1168	1169	1163	1160	1158	1158	33
ND	34	Bowman Area	978	979	1157	1157	1156	1165	1162	1170	1169	1172	1161	1150	1169	34
ND	35	Baker Field - North Dakota	978	979	979	979	979	979	978	978	978	978	978	978	978	35

THERMAL ZONE VARIANCE DOCUMENTATION		
October 2010		
<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
31	32	Higher BTU gas coming from Cabin Creek
32	35	Higher BTU gas coming from Cabin Creek