



MONTANA-DAKOTA

UTILITIES CO.

A Division of MDU Resources Group, Inc.

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

May 9, 2011

RECEIVED

MAY 10 2011

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

PUBLIC SERVICE COMMISSION

Re: Case No. 11,006 (Therm Billing)
Monthly Report – March 2011

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 April 2011.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our supplier for the month of March 2011. 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.

There were no thermal variances to report for the month of March 2011.

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
Regulatory Affairs Manager

3 PU-11-2 Filed: 5/10/2011 Pages: 21
March 2011 Therm Billing Report

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
APR 2011

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
12	314	APPLE VALLEY	271	1.0961
12	327	BISMARCK	28	1.0141
12	343	CARRINGTON	273	1.0952
12	344	CLEVELAND	272	1.0865
12	364	CAVALIER	273	1.1182
12	365	DAWSON	271	1.0884
12	374	FT TOTTEN	273	1.1029
12	375	DEVILS LAKE	273	1.1029
12	379	BARLOW	273	1.0952
12	387	ELDRIDGE	272	1.0942
12	411	GLEN ULLIN	31	.9908
12	417	GRAFTON	273	1.1259
12	449	JAMESTOWN	272	1.1019
12	463	LANGDON	273	1.0952
12	475	LINTON	802	.9688
12	478	LINCOLN	28	1.0141
12	494	MEDINA	271	1.0884
12	498	MANDAN	28	1.0141
12	524	NEW SALEM	28	.9927
12	532	NEW ROCKFORD	273	1.0952
12	539	PARK RIVER	273	1.1182
12	574	SANBORN	272	1.1019
12	593	STEELE	271	1.0884
12	598	SHEYENNE	273	1.1029
12	610	TAPPEN	271	1.0884
12	625	VALLEY CITY	272	1.1095
12	629	WALHALLA	273	1.1182
12	647	WILTON	262	1.1098
12	717	SPIRITWOOD	272	1.1019
12	732	MSR SITE	273	1.0952
12	733	PAR SITE	273	1.0952
15	303	ALEXANDER	25	1.0796
15	308	ARNEGARD	25	1.0796
15	318	BEACH	32	.9666
15	319	BELFIELD	32	.9737

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
APR 2011

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	323	BERTHOLD	262	1.1098
15	330	BOWMAN	34	1.0668
15	337	BURLINGTON	262	1.1338
15	368	DES LACS	262	1.1178
15	369	DICKINSON	31	.9836
15	384	EPPING	264	1.1315
15	407	GLADSTONE	31	.9836
15	413	GOLVA	32	.9525
15	416	GARRISON	262	1.1178
15	429	HEBRON	31	.9908
15	459	KILLDEER	33	1.1098
15	469	LEFOR	31	.9836
15	474	LIGNITE	263	1.0407
15	500	MARMARTH	34	1.0747
15	505	MINOT	262	1.1338
15	510	MOTT	31	.9836
15	512	MAX	262	1.1098
15	522	NEW ENGLAND	31	.9765
15	540	PALERMO	262	1.1098
15	558	RAY	264	1.1315
15	561	REGENT	31	.9836
15	563	RHAME	34	1.0590
15	564	RICHARDTON	31	.9765
15	568	ROSS	261	1.0990
15	572	RUTHVILLE	262	1.1338
15	583	SENTINEL BUTTE	32	.9666
15	588	SOUTH HEART	31	.9765
15	590	SPRINGBROOK	264	1.1315
15	591	STANLEY	261	1.1070
15	605	SURREY	262	1.1338
15	611	TAYLOR	31	.9765
15	616	TIOGA	261	1.0990
15	619	TURTLE LAKE	262	1.1178
15	620	TRENTON	24	1.1397
15	624	UNDERWOOD	262	1.1178

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
APR 2011

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	632	WATFORD CITY	25	1.0796
15	636	WHEELLOCK	264	1.1234
15	637	WHITE EARTH	261	1.1070
15	642	WILLISTON	24	1.1397
15	646	WASHBURN	262	1.1258
15	664	RIVERDALE	262	1.1178
15	691	FAIRVIEW	24	1.1397
15	712	MINOT AFB	262	1.1338
15	743	BAKER FIELD	35	.8980

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

GQ Source Daily Summary

March 2011

Number: 251 **Pressure Base:** 14.730 **Contract Day:** 1
Name: SIDNEY AREA **Temperature Base:** **Contract Hour:** 9

Day	Relative Density		Heating Value		CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
	Wet	Dry	Wet	Dry																
1	0.7107	1188.5	1209.5	0.046	2.920	70.980	22.963	2.883	0.073	0.126	0.005	0.005	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1434.69
2	0.7157	1196.7	1217.9	0.048	2.878	70.406	23.177	3.249	0.085	0.147	0.005	0.005	0.004	0.000	0.000	0.000	0.000	0.000	0.000	1439.62
3	0.7162	1197.1	1218.3	0.050	2.903	70.324	23.165	3.353	0.075	0.123	0.004	0.003	0.003	0.000	0.000	0.000	0.000	0.000	0.000	1439.52
4	0.7164	1197.0	1218.2	0.052	2.926	70.190	23.266	3.455	0.049	0.061	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1439.21
5	0.7146	1193.8	1214.9	0.050	2.954	70.454	23.078	3.348	0.050	0.064	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1437.19
6	0.7197	1202.4	1223.7	0.048	2.914	69.819	23.350	3.745	0.055	0.067	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1442.36
7	0.7183	1198.4	1219.7	0.051	3.018	69.984	23.179	3.657	0.050	0.060	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1439.06
8	0.7225	1205.3	1226.6	0.049	2.997	69.464	23.393	3.980	0.054	0.062	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1442.98
9	0.7176	1198.8	1220.1	0.049	2.925	70.026	23.353	3.541	0.049	0.057	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1440.31
10	0.7105	1187.0	1208.1	0.052	2.978	70.706	23.336	2.864	0.030	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1433.21
11	0.7129	1190.4	1211.5	0.054	2.994	70.321	23.597	2.968	0.030	0.034	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1434.86
12	0.7149	1193.1	1214.2	0.052	3.028	70.009	23.768	3.079	0.030	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1436.00
13	0.7142	1193.7	1214.8	0.044	2.936	70.180	23.681	3.091	0.032	0.036	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1437.44
14	0.7091	1186.3	1207.3	0.048	2.905	70.790	23.525	2.674	0.027	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1433.64
15	0.7117	1190.9	1212.0	0.054	2.858	70.529	23.576	2.920	0.030	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1436.59
16	0.7076	1184.9	1205.9	0.053	2.840	71.054	23.371	2.623	0.027	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1433.53
17	0.7073	1184.8	1205.8	0.055	2.809	71.223	23.141	2.712	0.028	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1433.76
18	0.7069	1183.2	1204.2	0.057	2.870	71.104	23.390	2.519	0.027	0.032	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1432.21
19	0.7106	1188.1	1209.2	0.058	2.916	70.602	23.592	2.769	0.029	0.033	0.000	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1432.39
20	0.7087	1185.3	1206.3	0.055	2.911	70.948	23.303	2.716	0.030	0.035	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1432.93
21	0.7056	1180.4	1201.3	0.054	2.919	71.250	23.312	2.408	0.026	0.029	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1430.17
22	0.7069	1182.2	1203.1	0.052	2.946	71.103	23.300	2.537	0.029	0.033	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1430.88
23	0.7099	1186.2	1207.3	0.052	2.972	70.687	23.504	2.719	0.030	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1432.83
24	0.7105	1185.9	1206.9	0.050	3.057	70.677	23.293	2.856	0.031	0.035	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1431.76
25	0.7079	1184.3	1205.3	0.050	2.908	71.098	23.157	2.723	0.029	0.034	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1432.49
26	0.7064	1181.5	1202.5	0.052	2.928	71.250	23.152	2.555	0.028	0.034	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1430.71
27	0.7147	1196.1	1217.3	0.044	2.829	70.297	23.487	3.263	0.037	0.043	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1439.90
28	0.7077	1184.1	1205.1	0.048	2.902	71.065	23.270	2.652	0.029	0.033	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1432.46
29	0.7157	1194.7	1215.8	0.037	3.026	69.835	23.973	3.051	0.036	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1437.08
30	0.7098	1188.7	1209.7	0.037	2.843	70.686	23.676	2.684	0.033	0.040	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1435.82
31	0.7051	1180.3	1201.2	0.050	2.888	71.456	23.033	2.516	0.027	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1430.53
Avg	0.7118	1190.0	1211.1	0.050	2.926	70.597	23.366	2.971	0.039	0.049	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1435.42

Zone 211

GQ Source Analysis

Williston Basin Interstate Pipeline Co.

GQ Source Number:	0602330	Specific Gravity:	0.7184
GQ Source Name:	WILLISTON BORDER	BTU Base:	Dry
Effective Date:	3/1/2011 9:00:00 AM	Measured Heat Value:	1201.59
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	1198.44
Pressure Base:	14.730	Wet Heat Value:	1177.58
Viscosity:		As Deliv. Heat Value:	1198.44
		Sample Pressure:	0.00
		Sample Temperature:	

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
C1	Methane	69.914		CO2	Carbon Dioxide	0.565
C2	Ethane	22.576	6.020	N2	Nitrogen	3.479
C3	Propane	3.216	0.883	O2	Oxygen	0.000
IC4	Iso-Butane	0.091	0.030	HE	Helium	
NC4	N-Butane	0.146	0.046	H2	Hydrogen	
IC5	Iso-Pentane	0.007	0.003	H2S	Hydrogen Sulfide	
NC5	N-Pentane	0.006	0.002	AR	Argon	
C6	Hexane	0.000	0.000	CO	Carbon Monoxide	
C7	Heptane			H2O	Water	
C8	Octane			Neo-C5	Neo-Pentane	
C9	Nonane					
C10	Decane					
		Totals	100.000%	6.983 GPM		

Sample Date: 3/31/2011 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Tech: Mary Berger

Analysis Remarks:

Zone 24, 264

GQ Source Analysis

Williston Basin Interstate Pipeline Co.

GQ Source Number:	0602230	Specific Gravity:	0.7284
GQ Source Name:	WATFORD CITY BORDER	BTU Base:	Dry
Effective Date:	3/1/2011 9:00:00 AM	Measured Heat Value:	1145.84
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	1143.08
Pressure Base:	14.730	Wet Heat Value:	1123.19
Viscosity:		As Deliv. Heat Value:	1143.08
		Sample Pressure:	0.00
		Sample Temperature:	

	<u>Mol %</u>	<u>GPM</u>		<u>Mol %</u>
C1 Methane	68.599		CO2 Carbon Dioxide	0.724
C2 Ethane	18.889	5.037	N2 Nitrogen	7.500
C3 Propane	3.721	1.022	O2 Oxygen	0.000
IC4 Iso-Butane	0.175	0.057	HE Helium	
NC4 N-Butane	0.335	0.105	H2 Hydrogen	
IC5 Iso-Pentane	0.025	0.009	H2S Hydrogen Sulfide	
NC5 N-Pentane	0.025	0.009	AR Argon	
C6 Hexane	0.006	0.003	CO Carbon Monoxide	
C7 Heptane			H2O Water	
C8 Octane			Neo-C5 Neo-Pentane	
C9 Nonane				
C10 Decane				
Totals		99.998%	6.242 GPM	

Sample Date: 3/31/2011 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Tech: Mary Berger
Analysis Remarks:

Zone 25

GQ Source Daily Summary

March 2011

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	0.7012	1155.6	1176.1	0.482	3.363	73.155	20.157	2.527	0.096	0.190	0.012	0.013	0.005						1404.46
2	0.7024	1158.5	1179.0	0.460	3.335	72.958	20.325	2.614	0.095	0.186	0.011	0.012	0.005						1406.71
3	0.7003	1154.6	1175.1	0.475	3.348	73.297	20.071	2.499	0.092	0.185	0.012	0.014	0.007						1404.17
4	0.6989	1152.2	1172.6	0.478	3.360	73.757	19.552	2.444	0.109	0.241	0.020	0.024	0.014						1402.58
5	0.7029	1156.5	1177.0	0.518	3.409	73.150	19.897	2.622	0.110	0.236	0.020	0.024	0.015						1403.88
6	0.7035	1158.7	1179.3	0.482	3.389	72.973	20.114	2.658	0.106	0.225	0.019	0.023	0.012						1405.92
7	0.7039	1159.9	1180.5	0.482	3.365	72.800	20.339	2.687	0.097	0.196	0.015	0.017	0.009						1406.99
8	0.7014	1155.5	1175.9	0.474	3.403	72.962	20.381	2.530	0.080	0.149	0.008	0.009	0.004						1404.09
9	0.7022	1156.9	1177.4	0.470	3.394	73.030	20.172	2.629	0.090	0.178	0.013	0.015	0.009						1405.03
10	0.7051	1160.7	1181.2	0.496	3.396	72.776	20.123	2.854	0.107	0.215	0.013	0.014	0.006						1406.69
11	0.7002	1150.9	1171.3	0.495	3.532	73.477	19.588	2.550	0.102	0.211	0.016	0.019	0.010						1399.77
12	0.7002	1150.9	1171.3	0.495	3.532	73.477	19.588	2.550	0.102	0.211	0.016	0.019	0.010						1399.77
13	0.6984	1149.4	1169.7	0.484	3.480	73.177	20.438	2.207	0.068	0.125	0.008	0.008	0.006						1399.67
14	0.7018	1154.1	1174.5	0.525	3.441	72.988	20.220	2.571	0.083	0.151	0.008	0.008	0.005						1402.06
15	0.7091	1163.9	1184.5	0.575	3.458	72.122	20.508	3.005	0.106	0.200	0.011	0.011	0.003						1406.60
16	0.7038	1157.7	1178.2	0.511	3.430	72.999	19.886	2.838	0.106	0.203	0.011	0.011	0.005						1404.41
17	0.7035	1156.6	1177.1	0.524	3.449	73.015	19.872	2.812	0.104	0.198	0.011	0.011	0.004						1403.42
18	0.7040	1157.4	1177.9	0.520	3.454	73.120	19.608	2.925	0.116	0.228	0.012	0.012	0.005						1403.84
19	0.7038	1157.8	1178.3	0.499	3.442	73.223	19.487	2.950	0.122	0.246	0.013	0.013	0.005						1404.53
20	0.7067	1161.9	1182.5	0.507	3.449	72.866	19.632	3.121	0.130	0.262	0.014	0.014	0.005						1406.63
21	0.7003	1150.9	1171.3	0.505	3.526	73.355	19.712	2.615	0.093	0.173	0.009	0.008	0.004						1399.69
22	0.6920	1140.6	1160.8	0.428	3.496	74.319	19.399	2.184	0.062	0.103	0.004	0.003	0.002						1395.39
23	0.6884	1136.6	1156.7	0.363	3.500	74.794	19.152	2.044	0.052	0.085	0.004	0.003	0.003						1394.15
24	0.7006	1156.3	1176.8	0.398	3.391	73.203	20.047	2.742	0.072	0.129	0.007	0.008	0.004						1405.92
25	0.6989	1152.6	1173.0	0.439	3.393	73.366	20.033	2.580	0.065	0.113	0.005	0.004	0.003						1403.14
26	0.6981	1152.3	1172.7	0.427	3.350	73.580	19.848	2.583	0.072	0.127	0.005	0.005	0.003						1403.62
27	0.6984	1152.6	1173.1	0.421	3.371	73.546	19.842	2.585	0.078	0.141	0.006	0.006	0.003						1403.67
28	0.6998	1155.3	1175.8	0.422	3.340	73.432	19.844	2.702	0.085	0.156	0.007	0.007	0.004						1405.48
29	0.6852	1132.2	1152.3	0.414	3.391	75.366	18.815	1.840	0.056	0.104	0.005	0.005	0.005						1392.03
30	0.6757	1117.3	1137.1	0.360	3.495	76.718	17.891	1.401	0.041	0.079	0.004	0.003	0.007						1383.23
31	0.6838	1130.9	1150.9	0.421	3.333	75.703	18.508	1.849	0.059	0.111	0.005	0.005	0.006						1391.75
Avg	0.6992	1152.0	1172.3	0.469	3.420	73.507	19.776	2.539	0.089	0.173	0.011	0.011	0.006						1401.91

Zone 261

GQ Source Daily Summary

March 2011

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	0.7018	1157.0	1177.5	0.490	3.316	73.088	20.228	2.564	0.096	0.192	0.011	0.011	0.004	0.000	0.000	0.000	0.000	0.000	1405.57
2	0.7047	1162.8	1183.4	0.466	3.275	72.759	20.374	2.768	0.108	0.220	0.013	0.014	0.004	0.000	0.000	0.000	0.000	0.000	1409.71
3	0.7054	1159.9	1180.4	0.502	3.464	72.412	20.626	2.719	0.088	0.171	0.007	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1405.46
4	0.7154	1169.3	1190.1	0.536	3.766	71.281	20.704	3.267	0.125	0.270	0.020	0.023	0.008	0.000	0.000	0.000	0.000	0.000	1407.04
5	0.7054	1158.7	1179.3	0.535	3.480	72.819	19.986	2.748	0.117	0.259	0.021	0.025	0.010	0.000	0.000	0.000	0.000	0.000	1404.09
6	0.7045	1160.0	1180.5	0.505	3.367	72.906	20.099	2.713	0.112	0.245	0.019	0.024	0.010	0.000	0.000	0.000	0.000	0.000	1406.48
7	0.7045	1160.7	1181.3	0.491	3.345	72.738	20.381	2.698	0.101	0.208	0.015	0.018	0.007	0.000	0.000	0.000	0.000	0.000	1407.38
8	0.7037	1159.8	1180.3	0.482	3.339	72.767	20.442	2.674	0.090	0.176	0.010	0.012	0.007	0.000	0.000	0.000	0.000	0.000	1407.04
9	0.7013	1155.6	1176.0	0.479	3.376	73.065	20.271	2.533	0.085	0.166	0.010	0.011	0.006	0.000	0.000	0.000	0.000	0.000	1404.35
10	0.7040	1159.5	1180.4	0.510	3.348	72.756	20.383	2.701	0.093	0.182	0.010	0.011	0.007	0.000	0.000	0.000	0.000	0.000	1406.35
11	0.7052	1159.9	1180.0	0.504	3.442	73.361	20.191	2.251	0.076	0.147	0.008	0.010	0.004	0.000	0.000	0.000	0.000	0.000	1405.62
12	0.6983	1149.2	1169.5	0.508	3.440	72.953	19.760	2.924	0.123	0.256	0.017	0.018	0.008	0.000	0.000	0.000	0.000	0.000	1399.58
13	0.6992	1151.1	1171.4	0.492	3.437	73.027	20.636	2.189	0.069	0.131	0.008	0.009	0.004	0.000	0.000	0.000	0.000	0.000	1400.95
14	0.6987	1150.0	1170.4	0.502	3.443	73.250	20.275	2.312	0.071	0.129	0.005	0.004	0.009	0.000	0.000	0.000	0.000	0.000	1400.11
15	0.7110	1166.8	1187.5	0.616	3.389	71.832	20.778	3.063	0.104	0.194	0.010	0.009	0.005	0.000	0.000	0.000	0.000	0.000	1408.32
16	0.7037	1157.9	1178.4	0.512	3.405	72.983	19.956	2.816	0.103	0.199	0.009	0.009	0.007	0.000	0.000	0.000	0.000	0.000	1404.81
17	0.7047	1158.9	1179.4	0.536	3.404	72.865	20.005	2.846	0.107	0.209	0.010	0.010	0.008	0.000	0.000	0.000	0.000	0.000	1404.97
18	0.7049	1159.4	1179.9	0.532	3.393	72.937	19.852	2.930	0.112	0.217	0.010	0.010	0.007	0.000	0.000	0.000	0.000	0.000	1405.43
19	0.7046	1158.4	1178.9	0.530	3.430	73.134	19.528	2.968	0.126	0.255	0.013	0.013	0.005	0.000	0.000	0.000	0.000	0.000	1404.50
20	0.7063	1162.4	1183.0	0.504	3.387	72.911	19.685	3.094	0.129	0.261	0.013	0.012	0.005	0.000	0.000	0.000	0.000	0.000	1407.62
21	0.7051	1158.8	1179.3	0.538	3.447	72.937	19.750	2.952	0.117	0.231	0.011	0.011	0.004	0.000	0.000	0.000	0.000	0.000	1404.40
22	0.6953	1144.7	1164.9	0.468	3.497	73.888	19.613	2.335	0.069	0.121	0.002	0.001	0.007	0.000	0.000	0.000	0.000	0.000	1397.05
23	0.6882	1136.5	1156.7	0.380	3.462	74.788	19.250	1.968	0.054	0.091	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	1394.26
24	0.6979	1152.5	1172.9	0.393	3.381	73.530	19.920	2.580	0.065	0.116	0.004	0.004	0.006	0.000	0.000	0.000	0.000	0.000	1394.94
25	0.7024	1158.7	1179.2	0.439	3.352	72.972	20.171	2.857	0.071	0.125	0.003	0.003	0.007	0.000	0.000	0.000	0.000	0.000	1403.26
26	0.6975	1151.6	1172.0	0.438	3.328	73.559	20.012	2.469	0.067	0.119	0.001	0.000	0.007	0.000	0.000	0.000	0.000	0.000	1406.98
27	0.6977	1151.8	1172.1	0.434	3.341	73.629	19.837	2.542	0.073	0.132	0.003	0.001	0.008	0.000	0.000	0.000	0.000	0.000	1403.29
28	0.7025	1159.9	1180.4	0.427	3.302	73.124	20.002	2.855	0.094	0.177	0.007	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1408.36
29	0.6933	1145.2	1165.5	0.429	3.338	74.189	19.605	2.235	0.067	0.125	0.002	0.002	0.008	0.000	0.000	0.000	0.000	0.000	1399.69
30	0.6816	1127.3	1147.2	0.404	3.367	75.841	18.610	1.635	0.045	0.088	0.001	0.000	0.010	0.000	0.000	0.000	0.000	0.000	1389.61
31	0.6776	1121.0	1140.8	0.384	3.401	76.638	17.827	1.584	0.052	0.102	0.001	0.000	0.011	0.000	0.000	0.000	0.000	0.000	1385.95
Avg	0.7008	1154.0	1174.8	0.483	3.402	73.256	19.960	2.606	0.091	0.178	0.009	0.009	0.007	0.000	0.000	0.000	0.000	0.000	1403.30

Zone 262

GQ Source Analysis

Williston Basin Interstate Pipeline Co.

GQ Source Number:	2501030	Specific Gravity:	0.6417
GQ Source Name:	LIGNITE PLANT	BTU Base:	Dry
Effective Date:	3/1/2011 9:00:00 AM	Measured Heat Value:	1095.55
Effective End Date:	1/18/2038 9:14:07 PM	Dry Heat Value:	1094.13
Pressure Base:	14.730	Wet Heat Value:	1075.09
Viscosity:		As Deliv. Heat Value:	1094.13
		Sample Pressure:	0.00
		Sample Temperature:	

	<u>Mol %</u>	<u>GPM</u>		<u>Mol %</u>
C1 Methane	81.985		CO2 Carbon Dioxide	0.071
C2 Ethane	14.342	3.824	N2 Nitrogen	3.285
C3 Propane	0.290	0.080	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	0.022	0.010	CO Carbon Monoxide	
C7 Heptane			H2O Water	
C8 Octane			Neo-C5 Neo-Pentane	
C9 Nonane				
C10 Decane				

Totals 99.996% 3.914 GPM

Sample Date: 3/31/2011 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks:

Analysis Tech: Mary Berger
Analysis Remarks:

Zone 263

*** End of Report ***

GQ Source Daily Summary

March 2011

Number: 043 **Pressure Base:** 14.730 **Contract Day:** 1
Name: BISMARCK-CLEVELAND **Temperature Base:** **Contract Hour:** 9

Day	Relative Density		Heating Value										CCT					
	Wet	Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6		C7	C8	C9	C10	Wobbe
1	0.6587	1089.7	1109.0	0.511	3.336	80.828	13.446	1.670	0.065	0.113	0.010	0.009	0.011	0.000	0.000	0.000	0.000	1366.48
2	0.6578	1088.5	1107.8	0.589	3.207	81.188	13.102	1.669	0.074	0.129	0.014	0.012	0.016	0.000	0.000	0.000	0.000	1365.87
3	0.6691	1106.2	1125.8	0.538	3.277	79.067	14.928	1.952	0.074	0.130	0.011	0.010	0.013	0.000	0.000	0.000	0.000	1376.20
4	0.6902	1133.6	1153.7	0.558	3.556	75.599	17.348	2.595	0.098	0.196	0.016	0.017	0.016	0.000	0.000	0.000	0.000	1388.60
5	0.6874	1129.8	1149.8	0.566	3.511	76.139	16.936	2.479	0.102	0.210	0.019	0.021	0.019	0.000	0.000	0.000	0.000	1386.80
6	0.6784	1119.7	1139.5	0.569	3.274	77.642	16.022	2.155	0.092	0.185	0.019	0.021	0.021	0.000	0.000	0.000	0.000	1383.50
7	0.6714	1109.2	1128.9	0.556	3.274	78.786	15.117	1.969	0.084	0.161	0.017	0.018	0.019	0.000	0.000	0.000	0.000	1377.70
8	0.6721	1110.8	1130.4	0.542	3.272	78.596	15.305	2.020	0.078	0.142	0.014	0.014	0.017	0.000	0.000	0.000	0.000	1378.83
9	0.6801	1122.7	1142.5	0.528	3.318	76.949	16.876	2.096	0.072	0.129	0.010	0.010	0.013	0.000	0.000	0.000	0.000	1385.44
10	0.6930	1142.7	1162.9	0.526	3.313	74.820	18.568	2.476	0.086	0.165	0.013	0.014	0.018	0.000	0.000	0.000	0.000	1396.95
11	0.6849	1130.2	1150.2	0.529	3.306	76.547	16.812	2.472	0.099	0.193	0.014	0.014	0.015	0.000	0.000	0.000	0.000	1389.82
12	0.6712	1106.9	1126.5	0.555	3.400	78.627	15.284	1.869	0.076	0.142	0.014	0.015	0.018	0.000	0.000	0.000	0.000	1375.02
13	0.6721	1109.5	1129.2	0.538	3.349	78.163	16.012	1.744	0.060	0.102	0.009	0.009	0.014	0.000	0.000	0.000	0.000	1377.39
14	0.6784	1119.1	1138.9	0.530	3.370	77.036	16.954	1.913	0.062	0.106	0.009	0.008	0.013	0.000	0.000	0.000	0.000	1382.81
15	0.6853	1129.2	1149.2	0.591	3.316	76.216	17.289	2.332	0.081	0.141	0.011	0.010	0.014	0.000	0.000	0.000	0.000	1388.12
16	0.6952	1144.4	1164.7	0.559	3.363	74.575	18.559	2.635	0.096	0.179	0.011	0.011	0.013	0.000	0.000	0.000	0.000	1396.84
17	0.6974	1148.2	1168.5	0.545	3.355	74.199	18.900	2.669	0.101	0.195	0.012	0.011	0.013	0.000	0.000	0.000	0.000	1399.32
18	0.7004	1152.5	1172.9	0.546	3.380	73.625	19.395	2.723	0.101	0.195	0.011	0.011	0.013	0.000	0.000	0.000	0.000	1401.46
19	0.7020	1155.0	1175.5	0.532	3.397	73.504	19.338	2.849	0.114	0.228	0.012	0.012	0.014	0.000	0.000	0.000	0.000	1402.95
20	0.7060	1161.8	1182.3	0.525	3.372	73.014	19.588	3.069	0.127	0.262	0.015	0.015	0.014	0.000	0.000	0.000	0.000	1407.12
21	0.6959	1145.8	1166.1	0.540	3.364	74.748	18.162	2.795	0.116	0.232	0.014	0.014	0.015	0.000	0.000	0.000	0.000	1397.93
22	0.6734	1111.4	1131.1	0.538	3.361	78.163	15.747	1.966	0.072	0.122	0.010	0.008	0.013	0.000	0.000	0.000	0.000	1378.34
23	0.6619	1094.7	1114.0	0.506	3.345	80.016	14.358	1.608	0.055	0.084	0.008	0.006	0.013	0.000	0.000	0.000	0.000	1369.36
24	0.6644	1099.9	1119.4	0.434	3.368	79.525	14.795	1.716	0.055	0.081	0.008	0.006	0.011	0.000	0.000	0.000	0.000	1373.35
25	0.6701	1107.8	1127.4	0.457	3.391	78.789	15.104	2.064	0.062	0.103	0.009	0.008	0.012	0.000	0.000	0.000	0.000	1377.26
26	0.6652	1099.5	1118.9	0.489	3.386	79.505	14.654	1.870	0.054	0.086	0.007	0.007	0.010	0.000	0.000	0.000	0.000	1371.97
27	0.6652	1100.1	1119.6	0.492	3.352	79.617	14.481	1.870	0.061	0.100	0.008	0.007	0.012	0.000	0.000	0.000	0.000	1372.65
28	0.6672	1103.3	1122.8	0.485	3.355	79.309	14.711	1.929	0.068	0.115	0.009	0.008	0.012	0.000	0.000	0.000	0.000	1374.57
29	0.6495	1075.0	1094.0	0.509	3.372	82.507	11.905	1.526	0.059	0.091	0.010	0.008	0.013	0.000	0.000	0.000	0.000	1357.50
30	0.6384	1058.1	1076.8	0.543	3.310	84.477	10.290	1.218	0.053	0.074	0.012	0.009	0.015	0.000	0.000	0.000	0.000	1347.71
31	0.6540	1083.2	1102.4	0.473	3.357	81.289	13.398	1.327	0.049	0.078	0.009	0.007	0.014	0.000	0.000	0.000	0.000	1363.08
AVG	0.6760	1116.0	1135.5	0.529	3.352	77.841	15.916	2.102	0.079	0.144	0.012	0.011	0.014	0.000	0.000	0.000	0.000	1381.00

Zone 271

GQ Source Daily Summary

March 2011

Number: 063 **Pressure Base:** 14.730 **Contract Day:** 1
Name: CLEVELAND-MAPLETON **Temperature Base:** **Contract Hour:** 9

Day	Heating Value		CCT															
	Relative Density	Wet	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C5	C7	C8	C9	C10	Wobbe	CCT
1	0.6611	1093.4	1112.8	0.496	3.365	80.347	13.866	1.717	0.065	0.116	0.010	0.009	0.008	0.000	0.000	0.000	0.000	1368.57
2	0.6561	1086.0	1105.3	0.577	3.219	81.462	12.863	1.647	0.072	0.125	0.013	0.011	0.011	0.000	0.000	0.000	0.000	1364.51
3	0.6637	1097.8	1117.2	0.539	3.268	80.094	14.015	1.835	0.076	0.137	0.013	0.012	0.011	0.000	0.000	0.000	0.000	1371.43
4	0.6809	1120.9	1140.7	0.546	3.471	77.022	16.421	2.273	0.082	0.154	0.012	0.011	0.009	0.000	0.000	0.000	0.000	1382.44
5	0.6923	1135.9	1156.1	0.559	3.602	75.397	17.333	2.720	0.108	0.224	0.020	0.022	0.014	0.000	0.000	0.000	0.000	1389.43
6	0.6794	1120.8	1140.7	0.563	3.311	77.445	16.164	2.167	0.095	0.197	0.020	0.022	0.016	0.000	0.000	0.000	0.000	1383.86
7	0.6721	1110.3	1130.0	0.552	3.282	78.722	15.105	2.023	0.088	0.174	0.018	0.020	0.017	0.000	0.000	0.000	0.000	1378.29
8	0.6707	1108.4	1128.0	0.546	3.278	78.884	15.018	1.997	0.080	0.151	0.016	0.016	0.014	0.000	0.000	0.000	0.000	1377.34
9	0.6769	1117.9	1137.7	0.531	3.298	77.577	16.291	2.068	0.073	0.129	0.011	0.010	0.011	0.000	0.000	0.000	0.000	1382.85
10	0.6867	1133.3	1153.4	0.511	3.315	75.882	17.707	2.308	0.082	0.156	0.013	0.014	0.012	0.000	0.000	0.000	0.000	1391.81
11	0.6891	1136.3	1156.4	0.534	3.318	75.640	17.740	2.455	0.093	0.181	0.015	0.015	0.010	0.000	0.000	0.000	0.000	1393.13
12	0.6750	1113.5	1133.2	0.536	3.385	78.188	15.446	2.131	0.090	0.177	0.016	0.017	0.012	0.000	0.000	0.000	0.000	1379.24
13	0.6686	1104.0	1123.5	0.541	3.354	78.838	15.370	1.704	0.060	0.102	0.010	0.009	0.012	0.000	0.000	0.000	0.000	1374.07
14	0.6760	1115.5	1135.2	0.527	3.372	77.451	16.609	1.841	0.062	0.108	0.010	0.009	0.011	0.000	0.000	0.000	0.000	1380.74
15	0.6785	1119.3	1139.1	0.538	3.358	77.108	16.798	1.989	0.067	0.115	0.009	0.008	0.009	0.000	0.000	0.000	0.000	1382.92
16	0.6959	1144.5	1164.8	0.612	3.335	74.621	18.363	2.732	0.099	0.184	0.012	0.012	0.010	0.000	0.000	0.000	0.000	1396.36
17	0.6956	1145.7	1166.0	0.531	3.365	74.477	18.668	2.642	0.099	0.189	0.011	0.011	0.008	0.000	0.000	0.000	0.000	1398.02
18	0.6966	1146.6	1166.9	0.546	3.378	74.328	18.761	2.662	0.100	0.193	0.011	0.011	0.009	0.000	0.000	0.000	0.000	1398.11
19	0.7017	1154.8	1175.3	0.536	3.374	73.595	19.223	2.898	0.115	0.230	0.013	0.014	0.002	0.000	0.000	0.000	0.000	1402.99
20	0.7032	1156.7	1177.2	0.525	3.410	73.375	19.347	2.941	0.123	0.251	0.014	0.014	0.000	0.000	0.000	0.000	0.000	1403.86
21	0.6987	1150.5	1170.8	0.521	3.379	74.263	18.522	2.915	0.121	0.246	0.014	0.014	0.004	0.000	0.000	0.000	0.000	1400.69
22	0.6805	1122.0	1141.8	0.546	3.368	77.154	16.370	2.275	0.090	0.166	0.012	0.011	0.009	0.000	0.000	0.000	0.000	1384.16
23	0.6645	1098.3	1117.8	0.515	3.353	79.603	14.648	1.705	0.059	0.092	0.009	0.007	0.009	0.000	0.000	0.000	0.000	1371.25
24	0.6606	1093.7	1113.1	0.446	3.375	80.109	14.374	1.545	0.053	0.077	0.008	0.006	0.008	0.000	0.000	0.000	0.000	1369.50
25	0.6684	1105.5	1125.1	0.475	3.386	79.055	14.929	1.991	0.064	0.104	0.010	0.009	0.009	0.000	0.000	0.000	0.000	1376.20
26	0.6669	1102.3	1121.8	0.448	3.396	79.273	14.742	1.942	0.056	0.091	0.008	0.006	0.007	0.000	0.000	0.000	0.000	1373.68
27	0.6637	1097.7	1117.2	0.487	3.361	79.817	14.363	1.795	0.059	0.096	0.008	0.007	0.008	0.000	0.000	0.000	0.000	1371.27
28	0.6651	1099.9	1119.4	0.483	3.361	79.630	14.475	1.859	0.063	0.105	0.009	0.007	0.008	0.000	0.000	0.000	0.000	1372.57
29	0.6549	1083.8	1103.0	0.498	3.362	81.621	12.596	1.717	0.067	0.110	0.011	0.009	0.010	0.000	0.000	0.000	0.000	1362.88
30	0.6426	1064.9	1083.7	0.525	3.316	83.742	10.898	1.349	0.056	0.082	0.012	0.009	0.012	0.000	0.000	0.000	0.000	1351.92
31	0.6474	1072.7	1091.7	0.506	3.327	82.641	12.081	1.289	0.050	0.076	0.010	0.008	0.011	0.000	0.000	0.000	0.000	1356.66
Avg	0.6753	1115.0	1134.4	0.526	3.356	77.979	15.778	2.102	0.080	0.146	0.012	0.012	0.010	0.000	0.000	0.000	0.000	1380.35

Zone 2.72

GQ Source Daily Summary

March 2011

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	0.6613	1093.8	1113.1	0.496	3.360	80.315	13.897	1.722	0.065	0.117	0.010	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1368.81
2	0.6563	1086.3	1105.6	0.577	3.214	81.438	12.885	1.652	0.072	0.125	0.013	0.012	0.011	0.000	0.000	0.000	0.000	0.000	1364.74
3	0.6638	1098.2	1117.6	0.540	3.262	80.071	14.032	1.847	0.076	0.136	0.013	0.012	0.011	0.000	0.000	0.000	0.000	0.000	1371.70
4	0.6811	1121.4	1141.3	0.546	3.461	76.979	16.461	2.283	0.082	0.155	0.012	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1382.86
5	0.6925	1136.4	1156.6	0.560	3.594	75.358	17.371	2.726	0.109	0.226	0.020	0.022	0.015	0.000	0.000	0.000	0.000	0.000	1389.79
6	0.6797	1121.3	1141.2	0.564	3.307	77.398	16.207	2.174	0.096	0.198	0.020	0.022	0.016	0.000	0.000	0.000	0.000	0.000	1384.18
7	0.6723	1110.7	1130.4	0.553	3.276	78.693	15.131	2.029	0.088	0.174	0.018	0.020	0.017	0.000	0.000	0.000	0.000	0.000	1378.56
8	0.6710	1108.9	1128.5	0.547	3.270	78.848	15.055	2.002	0.081	0.152	0.015	0.016	0.014	0.000	0.000	0.000	0.000	0.000	1377.68
9	0.6772	1118.5	1138.3	0.533	3.290	77.532	16.331	2.081	0.073	0.128	0.011	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1383.22
10	0.6869	1133.8	1153.8	0.511	3.306	75.849	17.743	2.313	0.082	0.156	0.013	0.014	0.013	0.000	0.000	0.000	0.000	0.000	1392.15
11	0.6894	1136.9	1157.0	0.534	3.310	75.595	17.781	2.467	0.094	0.181	0.015	0.014	0.011	0.000	0.000	0.000	0.000	0.000	1393.54
12	0.6753	1114.1	1133.8	0.537	3.377	78.136	15.495	2.139	0.091	0.179	0.017	0.017	0.012	0.000	0.000	0.000	0.000	0.000	1379.70
13	0.6688	1104.4	1124.0	0.542	3.347	78.800	15.406	1.711	0.061	0.103	0.010	0.009	0.013	0.000	0.000	0.000	0.000	0.000	1374.40
14	0.6763	1116.0	1135.8	0.528	3.362	77.408	16.652	1.849	0.062	0.109	0.010	0.009	0.011	0.000	0.000	0.000	0.000	0.000	1381.16
15	0.6789	1120.0	1139.8	0.539	3.349	77.050	16.853	1.999	0.068	0.116	0.009	0.008	0.010	0.000	0.000	0.000	0.000	0.000	1383.39
16	0.6961	1145.1	1165.3	0.611	3.327	74.584	18.400	2.760	0.099	0.184	0.012	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1396.75
17	0.6957	1146.0	1166.3	0.531	3.358	74.456	18.691	2.645	0.099	0.190	0.011	0.011	0.008	0.000	0.000	0.000	0.000	0.000	1398.27
18	0.6969	1147.2	1167.5	0.547	3.369	74.283	18.802	2.673	0.101	0.194	0.011	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1398.54
19	0.7021	1155.6	1177.8	0.537	3.364	73.536	19.273	2.915	0.116	0.231	0.013	0.013	0.003	0.000	0.000	0.000	0.000	0.000	1403.53
20	0.7035	1157.3	1177.8	0.527	3.401	73.315	19.414	2.944	0.122	0.249	0.014	0.014	0.000	0.000	0.000	0.000	0.000	0.000	1404.24
21	0.6992	1151.4	1171.8	0.522	3.367	74.178	18.601	2.930	0.122	0.247	0.014	0.014	0.004	0.000	0.000	0.000	0.000	0.000	1401.36
22	0.6809	1122.7	1142.6	0.547	3.358	77.097	16.420	2.287	0.091	0.168	0.012	0.011	0.010	0.000	0.000	0.000	0.000	0.000	1384.68
23	0.6647	1098.7	1118.2	0.516	3.345	79.577	14.672	1.713	0.060	0.093	0.009	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1371.55
24	0.6609	1094.3	1113.7	0.447	3.368	80.062	14.418	1.553	0.053	0.077	0.008	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1369.88
25	0.6686	1106.0	1125.6	0.446	3.378	79.020	14.960	2.001	0.064	0.104	0.010	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1376.55
26	0.6672	1102.9	1122.4	0.478	3.388	79.225	14.785	1.953	0.057	0.092	0.008	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1374.11
27	0.6639	1098.1	1117.5	0.487	3.354	79.787	14.395	1.799	0.059	0.095	0.008	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1371.54
28	0.6653	1100.4	1119.9	0.484	3.354	79.592	14.510	1.867	0.063	0.105	0.009	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1372.93
29	0.6547	1083.5	1102.7	0.499	3.357	81.665	12.558	1.713	0.067	0.111	0.011	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1362.75
30	0.6429	1065.4	1084.2	0.525	3.311	83.695	10.941	1.356	0.056	0.083	0.011	0.009	0.012	0.000	0.000	0.000	0.000	0.000	1352.27
31	0.6475	1072.8	1091.8	0.507	3.323	82.637	12.084	1.292	0.051	0.076	0.010	0.008	0.012	0.000	0.000	0.000	0.000	0.000	1356.76
Avg	0.6755	1115.0	1134.8	0.526	3.349	77.941	15.814	2.110	0.080	0.147	0.012	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1380.70

Zone 273

GQ Source Daily Summary

March 2011

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	0.6199	1028.0	1046.2	0.530	3.424	87.776	7.283	0.869	0.041	0.052	0.009	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1328.79
2	0.6161	1023.3	1041.4	0.676	3.133	88.791	6.424	0.822	0.052	0.062	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1326.73
3	0.6203	1029.2	1047.4	0.609	3.268	87.922	7.140	0.910	0.050	0.063	0.013	0.009	0.015	0.000	0.000	0.000	0.000	0.000	1329.87
4	0.6214	1031.9	1050.1	0.607	3.213	87.735	7.351	0.941	0.051	0.065	0.013	0.009	0.015	0.000	0.000	0.000	0.000	0.000	1332.14
5	0.6235	1035.7	1054.1	0.628	3.137	87.461	7.578	1.039	0.053	0.064	0.013	0.010	0.016	0.000	0.000	0.000	0.000	0.000	1334.93
6	0.6203	1030.4	1048.6	0.652	3.123	88.044	7.081	0.947	0.051	0.061	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1331.51
7	0.6190	1027.6	1045.8	0.642	3.189	88.207	6.940	0.871	0.050	0.060	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1329.28
8	0.6197	1028.4	1046.7	0.625	3.231	88.058	7.042	0.894	0.050	0.060	0.013	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1329.59
9	0.6194	1028.2	1046.4	0.646	3.183	88.174	6.936	0.907	0.051	0.061	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1329.63
10	0.6239	1035.9	1054.3	0.619	3.179	87.368	7.631	1.047	0.052	0.063	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1334.71
11	0.6221	1033.0	1051.3	0.598	3.218	87.610	7.455	0.978	0.048	0.056	0.012	0.009	0.016	0.000	0.000	0.000	0.000	0.000	1332.91
12	0.6212	1031.2	1049.5	0.601	3.240	87.714	7.393	0.914	0.046	0.055	0.012	0.009	0.015	0.000	0.000	0.000	0.000	0.000	1331.55
13	0.6207	1030.4	1048.6	0.599	3.246	87.808	7.302	0.908	0.046	0.055	0.012	0.009	0.015	0.000	0.000	0.000	0.000	0.000	1331.03
14	0.6213	1031.6	1049.8	0.606	3.220	87.737	7.354	0.941	0.047	0.056	0.013	0.009	0.016	0.000	0.000	0.000	0.000	0.000	1331.90
15	0.6229	1034.9	1053.2	0.612	3.155	87.482	7.638	0.964	0.050	0.058	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1334.53
16	0.6245	1038.1	1056.5	0.587	3.158	87.056	8.130	0.924	0.048	0.056	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1336.82
17	0.6257	1040.1	1058.5	0.585	3.151	86.879	8.254	0.987	0.048	0.056	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1338.13
18	0.6256	1039.9	1058.3	0.582	3.153	86.874	8.289	0.957	0.048	0.056	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1338.03
19	0.6265	1041.3	1059.8	0.559	3.186	86.586	8.437	0.991	0.047	0.055	0.013	0.010	0.016	0.000	0.000	0.000	0.000	0.000	1338.91
20	0.6248	1038.1	1056.4	0.571	3.204	86.984	8.177	0.922	0.047	0.056	0.013	0.010	0.016	0.000	0.000	0.000	0.000	0.000	1336.57
21	0.6271	1042.0	1060.5	0.560	3.203	86.555	8.553	0.985	0.048	0.057	0.013	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1339.12
22	0.6261	1040.7	1059.2	0.577	3.162	86.746	8.426	0.939	0.049	0.058	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1338.52
23	0.6218	1032.3	1050.6	0.598	3.231	87.595	7.547	0.879	0.049	0.059	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1332.37
24	0.6215	1033.3	1051.6	0.517	3.265	87.653	7.459	0.940	0.060	0.068	0.014	0.010	0.014	0.000	0.000	0.000	0.000	0.000	1333.99
25	0.6193	1026.5	1044.7	0.509	3.492	87.864	7.177	0.822	0.046	0.057	0.012	0.009	0.012	0.000	0.000	0.000	0.000	0.000	1327.49
26	0.6191	1025.8	1044.0	0.534	3.476	87.905	7.140	0.821	0.042	0.052	0.010	0.008	0.012	0.000	0.000	0.000	0.000	0.000	1326.83
27	0.6187	1025.4	1043.6	0.550	3.440	88.020	7.050	0.807	0.044	0.055	0.012	0.009	0.014	0.000	0.000	0.000	0.000	0.000	1326.71
28	0.6184	1024.9	1043.1	0.552	3.437	88.076	7.011	0.791	0.044	0.055	0.012	0.009	0.014	0.000	0.000	0.000	0.000	0.000	1326.41
29	0.6195	1026.9	1045.1	0.553	3.416	87.904	7.154	0.836	0.045	0.056	0.012	0.009	0.015	0.000	0.000	0.000	0.000	0.000	1327.82
30	0.6210	1030.5	1048.7	0.570	3.314	87.708	7.377	0.885	0.048	0.058	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1330.81
31	0.6237	1034.9	1053.2	0.563	3.312	87.266	7.714	0.993	0.051	0.061	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1333.56
AVG	0.6218	1032.0	1050.6	0.588	3.250	87.602	7.498	0.917	0.048	0.058	0.013	0.010	0.016	0.000	0.000	0.000	0.000	0.000	1332.30

Zone 28

GQ Source Daily Summary

March 2011

Number: 271

Pressure Base: 14.730

Contract Day: 1

Name: DICKINSON 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	0.6171	1026.1	1044.3	0.579	3.191	88.346	6.938	0.842	0.042	0.054	0.000	0.009	0.000	0.000	0.000	0.000	0.000	1329.33
2	0.6151	1022.1	1040.2	0.625	3.173	88.848	6.396	0.839	0.047	0.060	0.000	0.013	0.000	0.000	0.000	0.000	0.000	1326.35
3	0.6193	1028.4	1046.6	0.600	3.228	88.006	7.145	0.900	0.047	0.061	0.000	0.012	0.000	0.000	0.000	0.000	0.000	1329.88
4	0.6224	1034.5	1052.8	0.613	3.123	87.572	7.526	1.034	0.051	0.067	0.000	0.013	0.000	0.000	0.000	0.000	0.000	1334.46
5	0.6204	1031.3	1049.5	0.628	3.105	87.913	7.264	0.971	0.048	0.058	0.000	0.013	0.000	0.000	0.000	0.000	0.000	1332.53
6	0.6179	1026.4	1044.6	0.643	3.147	88.372	6.808	0.908	0.048	0.059	0.000	0.014	0.000	0.000	0.000	0.000	0.000	1328.86
7	0.6179	1025.9	1044.1	0.633	3.191	88.334	6.840	0.881	0.048	0.059	0.000	0.014	0.000	0.000	0.000	0.000	0.000	1328.26
8	0.6188	1027.5	1045.7	0.619	3.201	88.155	6.996	0.907	0.048	0.059	0.000	0.014	0.000	0.000	0.000	0.000	0.000	1329.33
9	0.6167	1025.8	1043.9	0.619	3.111	88.564	6.699	0.889	0.047	0.058	0.000	0.013	0.000	0.000	0.000	0.000	0.000	1329.32
10	0.6199	1031.4	1049.7	0.589	3.106	87.999	7.185	1.007	0.046	0.056	0.000	0.012	0.000	0.000	0.000	0.000	0.000	1333.27
11	0.6199	1031.2	1049.5	0.567	3.157	87.855	7.397	0.919	0.042	0.051	0.000	0.011	0.000	0.000	0.000	0.000	0.000	1332.96
12	0.6184	1026.9	1045.1	0.599	3.230	88.159	7.016	0.885	0.043	0.053	0.000	0.013	0.000	0.000	0.000	0.000	0.000	1329.01
13	0.6194	1028.7	1046.9	0.596	3.223	87.984	7.169	0.918	0.044	0.054	0.000	0.012	0.000	0.000	0.000	0.000	0.000	1330.19
14	0.6212	1032.5	1050.8	0.603	3.146	87.701	7.473	0.960	0.046	0.056	0.000	0.014	0.000	0.000	0.000	0.000	0.000	1335.87
15	0.6231	1036.1	1054.5	0.583	3.133	87.266	7.973	0.930	0.045	0.055	0.000	0.015	0.000	0.000	0.000	0.000	0.000	1336.50
16	0.6237	1037.2	1055.5	0.580	3.137	87.097	8.010	0.985	0.046	0.055	0.000	0.013	0.000	0.000	0.000	0.000	0.000	1337.32
17	0.6239	1037.7	1056.0	0.569	3.137	87.097	8.138	0.946	0.045	0.054	0.000	0.014	0.000	0.000	0.000	0.000	0.000	1335.64
18	0.6244	1038.3	1056.7	0.559	3.158	87.005	8.191	0.975	0.045	0.054	0.000	0.014	0.000	0.000	0.000	0.000	0.000	1338.07
19	0.6233	1036.2	1054.5	0.559	3.193	87.149	8.074	0.915	0.044	0.053	0.000	0.013	0.000	0.000	0.000	0.000	0.000	1334.90
20	0.6250	1038.8	1057.2	0.557	3.185	86.891	8.270	0.983	0.045	0.055	0.000	0.014	0.000	0.000	0.000	0.000	0.000	1337.35
21	0.6254	1039.8	1058.2	0.554	3.177	86.787	8.391	0.975	0.046	0.056	0.000	0.014	0.000	0.000	0.000	0.000	0.000	1338.07
22	0.6224	1034.8	1053.2	0.586	3.147	87.367	7.889	0.890	0.047	0.058	0.000	0.015	0.000	0.000	0.000	0.000	0.000	1334.90
23	0.6197	1029.9	1048.1	0.555	3.244	87.857	7.345	0.881	0.048	0.057	0.000	0.013	0.000	0.000	0.000	0.000	0.000	1331.35
24	0.6169	1024.9	1043.1	0.493	3.375	88.341	6.797	0.867	0.054	0.068	0.000	0.005	0.000	0.000	0.000	0.000	0.000	1327.98
25	0.6195	1027.8	1046.0	0.496	3.438	87.715	7.415	0.845	0.037	0.047	0.000	0.007	0.000	0.000	0.000	0.000	0.000	1328.93
26	0.6156	1021.3	1039.4	0.541	3.397	88.525	6.661	0.771	0.041	0.052	0.000	0.011	0.000	0.000	0.000	0.000	0.000	1324.75
27	0.6180	1024.8	1043.0	0.545	3.399	88.099	7.032	0.819	0.041	0.053	0.000	0.012	0.000	0.000	0.000	0.000	0.000	1326.76
28	0.6169	1022.8	1041.0	0.541	3.424	88.276	6.869	0.785	0.041	0.052	0.000	0.012	0.000	0.000	0.000	0.000	0.000	1325.35
29	0.6189	1026.9	1045.1	0.547	3.356	87.952	7.191	0.845	0.043	0.054	0.000	0.013	0.000	0.000	0.000	0.000	0.000	1328.47
30	0.6213	1031.3	1049.6	0.565	3.288	87.616	7.456	0.956	0.047	0.058	0.000	0.015	0.000	0.000	0.000	0.000	0.000	1331.57
31	0.6231	1034.7	1053.0	0.528	3.304	87.190	7.921	0.945	0.044	0.055	0.000	0.013	0.000	0.000	0.000	0.000	0.000	1334.04
AVG	0.6202	1030.0	1048.6	0.577	3.220	87.810	7.370	0.909	0.045	0.056	0.000	0.013	0.000	0.000	0.000	0.000	0.000	1331.57

Zone 31

GQ Source Daily Summary

March 2011

Number: 051

Pressure Base: 14.730

Contract Day: 1

Name: CABIN CR-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	0.6153	1021.7	1039.7	0.664	3.170	88.955	6.222	0.839	0.050	0.062	0.013	0.009	0.016	0.000	0.000	0.000	0.000	0.000	1325.54
2	0.6172	1023.9	1042.1	0.631	3.262	88.562	6.508	0.884	0.051	0.064	0.013	0.009	0.016	0.000	0.000	0.000	0.000	0.000	1326.42
3	0.6190	1027.4	1045.6	0.618	3.243	88.228	6.824	0.932	0.052	0.066	0.013	0.009	0.015	0.000	0.000	0.000	0.000	0.000	1328.95
4	0.6225	1034.0	1052.3	0.630	3.146	87.678	7.345	1.041	0.053	0.067	0.013	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1333.74
5	0.6185	1027.3	1045.5	0.661	3.135	88.416	6.678	0.955	0.052	0.063	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1329.39
6	0.6168	1023.6	1041.7	0.654	3.210	88.694	6.395	0.893	0.051	0.063	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1326.41
7	0.6168	1023.2	1041.3	0.647	3.240	88.682	6.389	0.886	0.051	0.063	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1325.96
8	0.6176	1024.9	1043.0	0.658	3.202	88.575	6.477	0.929	0.053	0.065	0.014	0.010	0.018	0.000	0.000	0.000	0.000	0.000	1327.21
9	0.6187	1026.9	1045.1	0.646	3.203	88.382	6.634	0.978	0.052	0.064	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1328.59
10	0.6203	1029.8	1048.1	0.614	3.221	88.022	6.991	1.005	0.050	0.059	0.013	0.009	0.016	0.000	0.000	0.000	0.000	0.000	1330.72
11	0.6195	1028.1	1046.3	0.610	3.252	88.094	6.978	0.925	0.047	0.057	0.012	0.009	0.015	0.000	0.000	0.000	0.000	0.000	1329.42
12	0.6184	1026.1	1044.3	0.612	3.272	88.304	6.753	0.918	0.047	0.057	0.012	0.009	0.015	0.000	0.000	0.000	0.000	0.000	1327.95
13	0.6191	1027.6	1045.8	0.622	3.233	88.210	6.844	0.945	0.048	0.059	0.013	0.010	0.016	0.000	0.000	0.000	0.000	0.000	1329.11
14	0.6206	1030.7	1049.0	0.628	3.171	87.983	7.085	0.979	0.051	0.061	0.014	0.010	0.018	0.000	0.000	0.000	0.000	0.000	1331.58
15	0.6214	1032.2	1050.4	0.618	3.179	87.772	7.322	0.956	0.050	0.060	0.014	0.010	0.018	0.000	0.000	0.000	0.000	0.000	1332.53
16	0.6225	1034.3	1052.6	0.600	3.179	87.561	7.518	0.992	0.049	0.059	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1334.07
17	0.6221	1033.5	1051.8	0.605	3.178	87.638	7.454	0.974	0.050	0.059	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1333.56
18	0.6230	1034.9	1053.2	0.580	3.215	87.428	7.640	0.991	0.048	0.058	0.013	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1334.39
19	0.6215	1032.1	1050.4	0.591	3.228	87.699	7.395	0.938	0.049	0.059	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1332.37
20	0.6237	1035.7	1054.0	0.583	3.231	87.309	7.716	1.010	0.050	0.060	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1334.63
21	0.6232	1035.0	1053.4	0.595	3.203	87.424	7.633	0.988	0.051	0.062	0.014	0.011	0.018	0.000	0.000	0.000	0.000	0.000	1334.34
22	0.6195	1028.6	1046.8	0.621	3.216	88.116	6.986	0.902	0.052	0.063	0.015	0.011	0.018	0.000	0.000	0.000	0.000	0.000	1329.88
23	0.6186	1027.6	1045.8	0.551	3.289	88.271	6.792	0.933	0.058	0.068	0.014	0.010	0.014	0.000	0.000	0.000	0.000	0.000	1329.68
24	0.6161	1020.8	1038.8	0.534	3.496	88.618	6.353	0.851	0.050	0.064	0.013	0.009	0.012	0.000	0.000	0.000	0.000	0.000	1323.54
25	0.6164	1020.5	1038.5	0.542	3.536	88.488	6.463	0.845	0.042	0.054	0.010	0.008	0.012	0.000	0.000	0.000	0.000	0.000	1322.77
26	0.6148	1017.9	1035.9	0.574	3.489	88.872	6.108	0.818	0.046	0.058	0.012	0.009	0.014	0.000	0.000	0.000	0.000	0.000	1321.22
27	0.6146	1017.9	1035.9	0.578	3.472	88.900	6.098	0.811	0.046	0.058	0.012	0.009	0.015	0.000	0.000	0.000	0.000	0.000	1321.30
28	0.6159	1020.2	1038.2	0.574	3.458	88.663	6.332	0.832	0.046	0.058	0.012	0.009	0.015	0.000	0.000	0.000	0.000	0.000	1322.91
29	0.6182	1024.9	1043.0	0.579	3.380	88.281	6.722	0.889	0.048	0.060	0.013	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1326.56
30	0.6207	1029.5	1047.7	0.579	3.326	87.884	7.090	0.965	0.051	0.063	0.014	0.010	0.017	0.000	0.000	0.000	0.000	0.000	1329.93
31	0.6225	1032.8	1051.1	0.534	3.368	87.416	7.572	0.971	0.046	0.057	0.012	0.009	0.015	0.000	0.000	0.000	0.000	0.000	1332.23
Avg	0.6192	1028.0	1045.7	0.604	3.271	88.165	6.881	0.928	0.050	0.061	0.013	0.010	0.016	0.000	0.000	0.000	0.000	0.000	1328.93

Zone 32

GQ Source Daily Summary

March 2011

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	0.6805	1152.4	1172.9	0.000	2.358	74.366	22.813	0.447	0.006	0.009	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1421.75	
2	0.6811	1153.2	1173.6	0.000	2.362	74.351	22.743	0.512	0.009	0.015	0.002	0.002	0.004	0.000	0.000	0.000	0.000	1422.08	
3	0.6815	1153.5	1173.9	0.000	2.389	74.312	22.679	0.605	0.006	0.008	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1421.95	
4	0.6815	1153.2	1173.7	0.000	2.402	74.161	22.964	0.458	0.006	0.008	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1421.71	
5	0.6808	1152.3	1172.7	0.000	2.395	74.292	22.851	0.446	0.006	0.008	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1421.27	
6	0.6811	1152.6	1173.1	0.000	2.398	74.242	22.894	0.450	0.006	0.008	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1421.42	
7	0.6796	1150.3	1170.6	0.000	2.408	74.498	22.667	0.412	0.006	0.008	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1419.96	
8	0.6810	1152.7	1173.2	0.000	2.388	74.314	22.771	0.511	0.006	0.008	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1421.54	
9	0.6818	1153.7	1174.1	0.000	2.398	74.135	22.965	0.485	0.006	0.009	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1421.99	
10	0.6825	1154.8	1175.2	0.000	2.401	74.047	22.998	0.537	0.006	0.009	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1422.55	
11	0.6821	1154.1	1174.5	0.000	2.405	74.060	23.044	0.475	0.006	0.008	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1422.14	
12	0.6816	1152.7	1173.1	0.000	2.441	74.172	22.888	0.483	0.006	0.008	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1420.97	
13	0.6829	1155.1	1175.5	0.000	2.426	73.900	23.166	0.492	0.006	0.008	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1422.45	
14	0.6818	1152.9	1173.3	0.000	2.453	74.127	22.918	0.485	0.006	0.008	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1420.92	
15	0.6826	1154.4	1174.9	0.000	2.437	73.921	23.171	0.458	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1421.98	
16	0.6830	1155.0	1175.5	0.000	2.432	73.874	23.204	0.474	0.006	0.008	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1422.37	
17	0.6832	1155.0	1175.5	0.000	2.452	73.825	23.234	0.470	0.006	0.008	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1422.16	
18	0.6839	1156.2	1176.7	0.000	2.443	73.661	23.431	0.450	0.005	0.007	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1422.92	
19	0.6826	1153.9	1174.3	0.000	2.472	73.887	23.195	0.432	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1421.28	
20	0.6824	1153.3	1173.7	0.000	2.459	73.614	23.473	0.440	0.005	0.007	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1422.74	
21	0.6844	1156.6	1177.1	0.000	2.489	73.890	23.211	0.397	0.005	0.006	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1420.77	
22	0.6845	1157.1	1177.6	0.000	2.471	73.496	23.615	0.405	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1422.85	
23	0.6824	1154.6	1175.0	0.000	2.448	73.524	23.571	0.443	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1423.37	
24	0.6842	1157.3	1177.8	0.000	2.401	73.928	23.254	0.404	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1422.48	
25	0.6839	1157.0	1177.5	0.000	2.412	73.561	23.592	0.421	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1423.87	
26	0.6839	1157.0	1177.5	0.000	2.398	73.610	23.580	0.398	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1423.86	
27	0.6831	1155.5	1175.9	0.000	2.417	73.765	23.411	0.394	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1423.77	
28	0.6832	1156.1	1176.5	0.000	2.395	73.756	23.432	0.400	0.006	0.009	0.001	0.001	0.002	0.000	0.000	0.000	0.000	1423.36	
29	0.6834	1155.6	1176.0	0.000	2.442	73.709	23.428	0.408	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1422.56	
30	0.6803	1151.0	1171.4	0.000	2.420	74.381	22.757	0.426	0.006	0.008	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1420.27	
31	0.6829	1155.4	1175.9	0.000	2.405	73.818	23.351	0.412	0.005	0.007	0.000	0.000	0.001	0.000	0.000	0.000	0.000	1422.90	
Avg	0.6824	1154.0	1174.8	0.000	2.420	73.974	23.138	0.453	0.006	0.008	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1422.10	

Zone 33

GQ Source Daily Summary

March 2011

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	0.7998	1141.6	1161.8	2.032	11.162	53.545	30.125	2.880	0.061	0.171	0.006	0.016	0.002	0.000	0.000	0.000	0.000	0.000	1299.05
2	0.7988	1145.0	1165.3	1.893	11.068	53.580	30.373	2.829	0.061	0.172	0.007	0.017	0.002	0.000	0.000	0.000	0.000	0.000	1303.81
3	0.7973	1141.4	1161.6	1.857	11.197	54.077	29.583	2.992	0.068	0.195	0.008	0.020	0.003	0.000	0.000	0.000	0.000	0.000	1300.92
4	0.8003	1144.8	1165.1	1.980	11.082	53.523	30.192	2.947	0.065	0.183	0.007	0.018	0.002	0.000	0.000	0.000	0.000	0.000	1302.40
5	0.8017	1145.5	1165.8	2.057	11.056	53.450	30.103	3.040	0.069	0.195	0.008	0.019	0.002	0.000	0.000	0.000	0.000	0.000	1301.99
6	0.8009	1143.9	1164.2	2.056	11.086	53.525	30.057	2.995	0.066	0.188	0.007	0.019	0.002	0.000	0.000	0.000	0.000	0.000	1300.80
7	0.8017	1143.7	1164.0	2.042	11.185	53.336	30.172	2.983	0.066	0.188	0.007	0.018	0.002	0.000	0.000	0.000	0.000	0.000	1300.01
8	0.8028	1145.1	1165.4	2.083	11.142	53.280	30.126	3.073	0.069	0.198	0.008	0.020	0.003	0.000	0.000	0.000	0.000	0.000	1300.68
9	0.8021	1145.9	1166.2	2.005	11.148	53.346	30.131	3.064	0.070	0.203	0.008	0.021	0.003	0.000	0.000	0.000	0.000	0.000	1302.17
10	0.8061	1150.0	1170.3	2.140	11.067	53.038	30.075	3.333	0.079	0.231	0.009	0.024	0.003	0.000	0.000	0.000	0.000	0.000	1303.53
11	0.8041	1142.5	1162.8	2.339	11.037	53.391	29.732	3.207	0.069	0.195	0.007	0.019	0.002	0.000	0.000	0.000	0.000	0.000	1296.66
12	0.8060	1142.6	1162.8	2.394	11.128	53.287	29.486	3.376	0.076	0.220	0.008	0.022	0.003	0.000	0.000	0.000	0.000	0.000	1295.19
13	0.8051	1141.5	1161.7	2.341	11.184	53.286	29.594	3.291	0.070	0.202	0.008	0.021	0.003	0.000	0.000	0.000	0.000	0.000	1294.74
14	0.8037	1140.8	1161.0	2.319	11.132	53.438	29.614	3.212	0.067	0.190	0.007	0.019	0.003	0.000	0.000	0.000	0.000	0.000	1295.05
15	0.8062	1144.0	1164.2	2.438	10.996	53.163	29.810	3.297	0.069	0.197	0.008	0.020	0.003	0.000	0.000	0.000	0.000	0.000	1296.62
16	0.8055	1145.6	1165.9	2.314	11.019	53.303	29.676	3.374	0.072	0.209	0.008	0.022	0.003	0.000	0.000	0.000	0.000	0.000	1298.99
17	0.8023	1140.2	1160.4	2.300	11.072	53.600	29.618	3.137	0.064	0.181	0.007	0.018	0.002	0.000	0.000	0.000	0.000	0.000	1295.44
18	0.8039	1143.3	1163.6	2.292	11.038	53.346	29.861	3.181	0.066	0.187	0.007	0.019	0.003	0.000	0.000	0.000	0.000	0.000	1297.76
19	0.8011	1139.4	1159.6	2.209	11.142	53.667	29.658	3.053	0.063	0.180	0.007	0.018	0.002	0.000	0.000	0.000	0.000	0.000	1295.53
20	0.8051	1148.5	1168.8	2.307	10.809	53.131	30.306	3.175	0.063	0.180	0.007	0.018	0.002	0.000	0.000	0.000	0.000	0.000	1302.67
21	0.8023	1140.9	1161.1	2.285	11.050	53.579	29.688	3.127	0.063	0.179	0.007	0.018	0.002	0.000	0.000	0.000	0.000	0.000	1296.24
22	0.8019	1139.5	1159.7	2.275	11.112	53.624	29.607	3.115	0.063	0.177	0.007	0.017	0.002	0.000	0.000	0.000	0.000	0.000	1294.98
23	0.8014	1139.9	1160.1	2.265	11.056	53.661	29.696	3.063	0.061	0.172	0.007	0.017	0.002	0.000	0.000	0.000	0.000	0.000	1295.85
24	0.7987	1137.2	1157.3	2.315	10.843	54.245	29.418	2.930	0.059	0.165	0.006	0.016	0.002	0.000	0.000	0.000	0.000	0.000	1295.36
25	0.7987	1141.2	1161.4	2.294	10.678	54.167	29.674	2.924	0.062	0.175	0.007	0.017	0.002	0.000	0.000	0.000	0.000	0.000	1299.56
26	0.7960	1136.6	1156.7	2.248	10.771	54.668	29.135	2.901	0.065	0.183	0.007	0.018	0.003	0.000	0.000	0.000	0.000	0.000	1296.54
27	0.8027	1144.6	1164.9	2.332	10.786	53.605	29.883	3.107	0.068	0.191	0.007	0.019	0.003	0.000	0.000	0.000	0.000	0.000	1300.20
28	0.8026	1141.6	1161.8	2.370	10.900	53.727	29.541	3.163	0.070	0.198	0.008	0.020	0.003	0.000	0.000	0.000	0.000	0.000	1296.87
29	0.8033	1145.6	1165.9	2.346	10.763	53.455	30.078	3.078	0.065	0.186	0.007	0.019	0.003	0.000	0.000	0.000	0.000	0.000	1300.82
30	0.8027	1146.2	1166.5	2.282	10.767	53.588	29.941	3.135	0.067	0.190	0.008	0.019	0.003	0.000	0.000	0.000	0.000	0.000	1301.96
31	0.8042	1144.6	1164.9	2.260	10.885	53.454	29.769	3.240	0.068	0.194	0.008	0.020	0.002	0.000	0.000	0.000	0.000	0.000	1298.94
Avg	0.8022	1143.0	1163.2	2.218	11.012	53.551	29.830	3.104	0.067	0.190	0.007	0.019	0.003	0.000	0.000	0.000	0.000	0.000	1298.75

*** End of Report***

Zone 34

GQ Source Analysis

Williston Basin Interstate Pipeline Co.

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
		Sample Pressure:	29.00
		Sample Temperature:	

		<u>Mol %</u>	<u>GPM</u>			<u>Mol %</u>
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			Neo-C5	Neo-Pentane	
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 Tech: Mary Berger

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	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	MAR 11	FEB 11	JAN 11	DEC 10	NOV 10	OCT 10	SEPT 10	AUG 10	JULY 10	JUNE 10	MAY 10	APR 10	ZONE
MT/ND	211	Sidney Area	1207	1211	1216	1212	1218	1210	1206	1209	1208	1204	1197	1199	1197	21
ND	24	Williston Area	1198	1198	1196	1204	1207	1208	1193	1200	1212	1208	1171	1186	1192	24
ND	25	Waitford City Area	1134	1143	1131	1150	1135	1133	1130	1133	1129	1130	1134	1132	1128	25
ND	261	Williston - Tioga - Minot Line	1154	1172	1176	1171	1154	1135	1140	1145	1161	1160	1147	1134	1150	261
ND	262	Minot Area	1186	1175	1178	1182	1191	1186	1190	1191	1189	1193	1188	1187	1184	262
ND	263	Tioga - Portal	1109	1094	1090	1094	1100	1107	1120	1133	1127	1124	1104	1102	1110	263
ND	264	Williston - Ray	1198	1198	1196	1204	1207	1208	1193	1200	1212	1208	1171	1186	1192	264
ND	271	Bismarck - Cleveland	1169	1136	1118	1130	1160	1172	1190	1191	1187	1193	1186	1185	1183	271
ND	272	Cleveland - Mapleton	1169	1134	1117	1130	1159	1171	1190	1190	1187	1193	1187	1186	1182	272
ND	273	Cleveland - Grafton	1169	1135	1117	1130	1159	1172	1190	1190	1187	1193	1187	1186	1182	273
ND	28	Bismarck - Cabin Creek	1131	1051	1042	1045	1055	1097	1173	1191	1182	1193	1186	1174	1178	28
ND	31	Dickinson Area	1054	1049	1040	1044	1053	1082	1088	1056	1065	1023	1053	1066	1033	31
ND/MT	32	Cabin Creek - Dickinson	1036	1046	1037	1041	1050	1079	1075	1040	1031	986	1043	1005	986	32
ND	33	Killdeer	1175	1175	1175	1175	1175	1177	1179	1179	1177	1177	1172	1169	1168	33
ND	34	Bowman Area	1163	1163	1158	1163	1172	1167	1163	1157	1157	1156	1165	1162	1170	34
ND	35	Baker Field - North Dakota	979	979	979	979	979	979	979	979	979	979	979	978	978	35