

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

December 21, 2009

RECEIVED

DEC 23 2009

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 – October 2009

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

1. Attachment A is a schedule showing the thermal billing factors by community that reflect the BTU values shown on Attachment B and were used for billing purposes in November 2009.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our supplier for the month of October 2009. There is a report for each of the 16 thermal zones for the month.
3. Attachment C is a listing which states the type of measuring device in place at each zone.
4. Attachment D is a monthly list of the heating value data, by zone, for the most recent 12-month period and an average thereof. It is being provided pursuant to a Staff request.
5. Attachment E provides a brief explanation of the thermal variances, where applicable, for the month of October.

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 2009

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
12	314	APPLE VALLEY	271	1.1328
12	327	BISMARCK	28	1.1010
12	343	CARRINGTON	273	1.1318
12	344	CLEVELAND	272	1.1248
12	364	CAVALIER	273	1.1556
12	365	DAWSON	271	1.1248
12	374	FT TOTTEN	273	1.1398
12	375	DEVILS LAKE	273	1.1398
12	379	BARLOW	273	1.1318
12	387	ELDRIDGE	272	1.1328
12	411	GLEN ULLIN	31	.9672
12	417	GRAFTON	273	1.1636
12	439	HANKINSON	600	1.0650
12	449	JAMESTOWN	272	1.1408
12	463	LANGDON	273	1.1318
12	475	LINTON	802	.9717
12	478	LINCOLN	28	1.1010
12	494	MEDINA	271	1.1248
12	498	MANDAN	28	1.1010
12	524	NEW SALEM	28	1.0777
12	532	NEW ROCKFORD	273	1.1318
12	539	PARK RIVER	273	1.1556
12	574	SANBORN	272	1.1408
12	593	STEELE	271	1.1248
12	598	SHEYENNE	273	1.1398
12	610	TAPPEN	271	1.1248
12	625	VALLEY CITY	272	1.1486
12	629	WALHALLA	273	1.1556
12	647	WILTON	262	1.1088
12	717	SPIRITWOOD	272	1.1408
12	718	FAIRMOUNT	600	1.0628
12	732	MSR SITE	273	1.1318
12	733	PAR SITE	273	1.1318
15	303	ALEXANDER	25	1.0588
15	308	ARNEGARD	25	1.0588

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
NOV 2009

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	318	BEACH	32	.9186
15	319	BELFIELD	32	.9253
15	323	BERTHOLD	262	1.1088
15	330	BOWMAN	34	1.0769
15	337	BURLINGTON	262	1.1328
15	368	DES LACS	262	1.1168
15	369	DICKINSON	31	.9602
15	384	EPPING	264	1.1164
15	407	GLADSTONE	31	.9602
15	413	GOLVA	32	.9051
15	416	GARRISON	262	1.1168
15	429	HEBRON	31	.9672
15	459	KILLDEER	33	1.0947
15	469	LEFOR	31	.9602
15	474	LIGNITE	263	1.0712
15	500	MARMARTH	34	1.0849
15	505	MINOT	262	1.1328
15	510	MOTT	31	.9602
15	512	MAX	262	1.1088
15	522	NEW ENGLAND	31	.9532
15	540	PALERMO	262	1.1088
15	558	RAY	264	1.1164
15	561	REGENT	31	.9602
15	563	RHAME	34	1.0690
15	564	RICHARDTON	31	.9532
15	568	ROSS	261	1.0877
15	572	RUTHVILLE	262	1.1328
15	583	SENTINEL BUTTE	32	.9186
15	588	SOUTH HEART	31	.9532
15	590	SPRINGBROOK	264	1.1164
15	591	STANLEY	261	1.0956
15	605	SURREY	262	1.1328
15	611	TAYLOR	31	.9532
15	616	TIOGA	261	1.0877
15	619	TURTLE LAKE	262	1.1168

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
NOV 2009

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	620	TRENTON	24	1.1244
15	624	UNDERWOOD	262	1.1168
15	632	WATFORD CITY	25	1.0588
15	636	WHEELLOCK	264	1.1084
15	637	WHITE EARTH	261	1.0956
15	642	WILLISTON	24	1.1244
15	646	WASHBURN	262	1.1248
15	664	RIVERDALE	262	1.1168
15	691	FAIRVIEW	24	1.1244
15	712	MINOT AFB	262	1.1328
15	743	BAKER FIELD	35	.8971

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

GQ Source Daily Summary

October 2009

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	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7037	1174.4	1195.2	1194.7	0.040	3.125	71.977	22.075	2.655	0.051	0.073	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1424.79
2	0.7036	1174.6	1195.4	1194.8	0.041	3.101	71.880	22.306	2.560	0.047	0.061	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1425.15
3	0.6975	1164.7	1185.4	1184.7	0.042	3.132	72.720	21.821	2.191	0.037	0.052	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1419.30
4	0.7169	1174.4	1195.2	1194.6	0.047	3.595	70.147	22.571	2.937	0.070	0.122	0.006	0.005	0.001	0.000	0.000	0.000	0.000	0.000	1411.81
5	0.7113	1167.8	1188.5	1187.9	0.049	3.554	70.964	22.122	2.680	0.069	0.110	0.005	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1409.43
6	0.7317	1176.2	1197.1	1196.4	1.069	4.079	68.288	22.811	3.445	0.101	0.188	0.011	0.009	0.001	0.000	0.000	0.000	0.000	0.000	1399.43
7	0.7045	1170.5	1191.2	1190.6	0.073	3.236	71.734	22.273	2.466	0.046	0.069	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1419.32
8	0.7001	1169.4	1190.1	1189.6	0.036	3.101	72.390	21.985	2.388	0.041	0.056	0.002	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1422.34
9	0.7026	1170.8	1191.6	1191.1	0.111	3.130	71.990	22.263	2.395	0.044	0.064	0.002	0.002	0.000	0.000	0.000	0.000	0.000	0.000	1421.65
10	0.7063	1180.0	1200.9	1200.4	0.056	2.999	71.888	21.976	2.857	0.081	0.132	0.005	0.004	0.001	0.000	0.000	0.000	0.000	0.000	1428.98
11	0.6959	1163.3	1183.9	1183.4	0.053	3.046	73.009	21.677	2.114	0.040	0.057	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1419.25
12	0.6967	1164.9	1185.5	1185.0	0.048	3.034	72.776	21.994	2.052	0.038	0.054	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1420.36
13	0.6974	1163.8	1184.4	1183.9	0.052	3.163	72.797	21.653	2.248	0.036	0.047	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1418.25
14	0.6855	1144.9	1165.2	1164.7	0.049	3.204	74.265	21.057	1.380	0.020	0.023	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1407.33
15	0.6822	1140.6	1160.8	1160.3	0.047	3.166	74.857	20.576	1.307	0.022	0.024	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1405.32
16	0.6943	1160.3	1180.9	1180.4	0.044	3.101	73.059	21.803	1.917	0.036	0.038	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1417.17
17	0.6954	1161.2	1181.8	1181.2	0.052	3.136	72.907	21.860	1.961	0.033	0.047	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1417.14
18	0.6963	1162.7	1183.3	1182.7	0.049	3.127	72.834	21.853	2.043	0.036	0.053	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1418.13
19	0.6978	1166.1	1186.8	1186.3	0.044	3.070	72.579	22.108	2.112	0.034	0.048	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1420.74
20	0.7041	1175.4	1196.2	1195.7	0.049	3.087	71.962	22.131	2.600	0.072	0.093	0.003	0.003	0.001	0.000	0.000	0.000	0.000	0.000	1425.56
21	0.7000	1170.2	1190.9	1190.5	0.044	3.028	72.240	22.388	2.209	0.037	0.050	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1423.46
22	0.6994	1169.2	1189.9	1189.4	0.041	3.045	72.345	22.269	2.208	0.038	0.049	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1422.74
23	0.6983	1167.5	1188.2	1187.7	0.047	3.035	72.472	22.250	2.114	0.034	0.046	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1421.82
24	0.6975	1166.8	1187.5	1187.0	0.045	3.002	72.654	22.089	2.124	0.034	0.046	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1421.82
25	0.6961	1164.6	1185.2	1184.8	0.042	3.003	72.896	21.898	2.079	0.033	0.045	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1420.64
26	0.6988	1168.9	1189.6	1189.1	0.039	2.999	72.487	22.179	2.102	0.037	0.051	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1423.13
27	0.6970	1166.4	1187.1	1186.6	0.036	2.991	72.719	22.069	2.102	0.033	0.045	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1421.88
28	0.6971	1166.4	1187.1	1186.7	0.035	3.004	72.666	22.137	2.079	0.034	0.042	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1421.77
29	0.6962	1165.2	1185.8	1185.4	0.034	2.997	72.881	21.907	2.089	0.039	0.050	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1421.15
30	0.6966	1165.6	1186.3	1185.9	0.035	3.006	72.805	21.957	2.114	0.035	0.045	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1421.29
31	0.6981	1168.3	1189.0	1188.5	0.032	2.984	72.622	22.060	2.210	0.038	0.049	0.001	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1423.06
AVG	0.7000	1167.0	1187.3	1186.8	0.114	3.138	72.381	22.004	2.253	0.043	0.062	0.002	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1419.17

Zone 211

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	0602330	Specific Gravity:	0.7198
GQ Source Name:	WILLISTON BORDER	BTU Base:	Dry
Effective Date:	10/1/2009 9:00:00 AM	Dry Heat Value:	1181.64
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1161.07
Pressure Base:	14.730	As Deliv. Heat Value:	1181.64
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	69.732		
C2	Ethane	21.595	0.000	5.758
C3	Propane	3.223	0.885	0.885
IC4	Iso-Butane	0.105	0.034	0.034
NC4	N-Butane	0.186	0.059	0.059
IC5	Iso-Pentane	0.013	0.005	0.005
NC5	N-Pentane	0.011	0.004	0.004
C6+	Hexanes Plus	0.000	0.000	0.000
CO2	Carbon Dioxide	0.668		
N2	Nitrogen	4.465		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		99.999	0.987	6.745

Sample Date: 10/30/2009 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks: Zone 24 #264
Analysis Remarks:

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	0602230	Specific Gravity:	0.7302
GQ Source Name:	WATFORD CITY BORDER	BTU Base:	Dry
Effective Date:	10/1/2009 12:00:00 AM	Dry Heat Value:	1121.44
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1101.93
Pressure Base:	14.730	As Deliv. Heat Value:	1121.44
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	68.141		
C2	Ethane	17.697	0.000	4.719
C3	Propane	3.829	1.052	1.052
IC4	Iso-Butane	0.197	0.064	0.064
NC4	N-Butane	0.353	0.111	0.111
IC5	Iso-Pentane	0.027	0.010	0.010
NC5	N-Pentane	0.025	0.009	0.009
C6+	Hexanes Plus	0.006	0.003	0.003
CO2	Carbon Dioxide	0.675		
N2	Nitrogen	9.048		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		99.998	1.249	5.967

Sample Date: 10/30/2009 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks: *Zone 25*
Analysis Remarks:

GQ Source Daily Summary

October 2009

Number: 163

Pressure Base: 14.730

Contract Day: 1

Name: NORTH TIOGA-MINOT

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6767	1121.3	1141.2		0.423	3.243	76.832	17.716	1.684	0.037	0.061	0.001	0.000	0.004	0.004					1387.25
2	0.6875	1137.9	1158.1		0.451	3.193	75.489	18.417	2.212	0.072	0.144	0.008	0.009	0.006	0.006					1396.76
3	0.6891	1140.9	1161.1		0.446	3.173	75.367	18.335	2.449	0.075	0.141	0.006	0.005	0.004	0.004					1398.71
4	0.6868	1136.2	1156.3		0.444	3.244	75.621	18.191	2.292	0.067	0.127	0.005	0.005	0.004	0.004					1395.33
5	0.6833	1131.2	1151.2		0.443	3.227	76.073	17.987	2.096	0.058	0.106	0.004	0.003	0.004	0.004					1392.68
6	0.6883	1139.6	1159.8		0.462	3.154	75.385	18.453	2.337	0.070	0.126	0.004	0.003	0.003	0.003					1397.93
7	0.6879	1138.7	1158.9		0.475	3.151	75.431	18.440	2.296	0.071	0.126	0.004	0.003	0.003	0.003					1397.27
8	0.7048	1147.2	1167.5		0.646	3.966	72.608	19.741	2.774	0.092	0.159	0.007	0.006	0.006	0.006					1390.64
9	0.7036	1150.9	1171.3		0.633	3.642	72.577	20.396	2.520	0.079	0.139	0.006	0.006	0.006	0.006					1396.40
10	0.7030	1151.1	1171.4		0.640	3.572	72.862	20.105	2.517	0.094	0.186	0.011	0.012	0.001	0.001					1397.12
11	0.7002	1149.6	1169.9		0.562	3.512	73.223	19.971	2.411	0.082	0.149	0.008	0.007	0.000	0.000					1398.14
12	0.6979	1147.5	1167.9		0.515	3.496	73.543	19.797	2.485	0.078	0.144	0.007	0.006	0.001	0.001					1397.93
13	0.6968	1147.8	1168.1		0.484	3.423	73.862	19.468	2.531	0.078	0.142	0.006	0.005	0.001	0.001					1399.35
14	0.6987	1149.5	1169.9		0.502	3.469	73.608	19.569	2.583	0.087	0.165	0.008	0.008	0.001	0.001					1399.55
15	0.6958	1145.6	1165.9		0.486	3.462	74.036	19.293	2.475	0.080	0.152	0.007	0.006	0.002	0.002					1397.64
16	0.6941	1144.2	1164.4		0.501	3.358	74.309	19.202	2.410	0.074	0.135	0.005	0.004	0.002	0.002					1397.72
17	0.6898	1136.9	1157.0		0.486	3.426	74.863	18.842	2.200	0.062	0.109	0.004	0.003	0.004	0.004					1393.10
18	0.6888	1134.0	1154.1		0.490	3.498	75.105	18.498	2.222	0.064	0.113	0.005	0.004	0.003	0.003					1390.61
19	0.6879	1132.6	1152.7		0.503	3.483	75.239	18.403	2.201	0.059	0.103	0.004	0.003	0.003	0.003					1389.78
20	0.6998	1142.6	1162.9		0.573	3.886	73.246	19.533	2.545	0.075	0.130	0.006	0.005	0.001	0.001					1390.07
21	0.6932	1142.3	1162.5		0.426	3.508	74.388	19.096	2.325	0.080	0.152	0.010	0.011	0.004	0.004					1396.26
22	0.6951	1141.7	1161.9		0.497	3.615	73.907	19.466	2.324	0.067	0.115	0.005	0.004	0.001	0.001					1393.64
23	0.6887	1135.1	1155.2		0.461	3.467	74.946	18.853	2.099	0.060	0.105	0.004	0.003	0.002	0.002					1392.07
24	0.6888	1136.5	1156.7		0.452	3.410	74.998	18.793	2.165	0.062	0.110	0.004	0.004	0.003	0.003					1393.63
25	0.6883	1134.7	1154.8		0.482	3.426	75.076	18.703	2.143	0.059	0.101	0.003	0.004	0.002	0.002					1391.94
26	0.6892	1133.4	1153.5		0.515	3.540	74.944	18.662	2.170	0.059	0.098	0.004	0.005	0.003	0.003					1389.41
27	0.6988	1144.8	1165.1		0.582	3.639	73.479	19.555	2.541	0.072	0.121	0.005	0.004	0.001	0.001					1393.77
28	0.7010	1147.0	1167.3		0.620	3.658	73.244	19.581	2.666	0.078	0.140	0.007	0.006	0.001	0.001					1394.18
29	0.7028	1152.7	1173.1		0.586	3.527	73.050	19.776	2.809	0.084	0.152	0.007	0.006	0.002	0.002					1399.37
30	0.6860	1130.8	1150.9		0.442	3.500	75.706	17.899	2.240	0.070	0.128	0.006	0.005	0.004	0.004					1389.54
31	0.6726	1111.2	1130.9		0.383	3.526	77.773	16.438	1.711	0.053	0.096	0.006	0.007	0.007	0.007					1379.01
Avg	0.6924	1140.0	1160.0		0.504	3.464	74.542	18.941	2.337	0.071	0.128	0.006	0.005	0.002	0.002					1394.09

Zone 261

GQ Source Daily Summary

October 2009

Number: 091 **Pressure Base:** 14.730 **Contract Day:** 1

Name: MINOT **Temperature Base:** **Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT	
1	0.7294	1147.4	1167.7	1167.3	0.569	6.378	67.888	21.473	3.335	0.125	0.219	0.006	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1367.33	
2	0.7325	1150.0	1170.3	1169.9	0.600	6.467	67.372	21.776	3.423	0.127	0.221	0.007	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1367.46	
3	0.7365	1158.2	1178.7	1178.2	0.594	6.355	66.850	22.171	3.620	0.139	0.251	0.009	0.007	0.004	0.000	0.000	0.000	0.000	0.000	1373.41	
4	0.7364	1156.3	1176.7	1176.3	0.601	6.447	66.903	21.977	3.671	0.137	0.246	0.008	0.006	0.004	0.000	0.000	0.000	0.000	0.000	1371.30	
5	0.7352	1153.8	1174.2	1173.8	0.604	6.481	67.018	21.926	3.594	0.131	0.232	0.007	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1369.51	
6	0.7262	1147.0	1167.3	1166.8	0.571	6.100	68.819	20.592	3.546	0.133	0.227	0.006	0.002	0.005	0.000	0.000	0.000	0.000	0.000	1369.84	
7	0.7232	1144.3	1164.5	1164.0	0.541	6.032	69.414	20.089	3.553	0.135	0.224	0.005	0.001	0.006	0.000	0.000	0.000	0.000	0.000	1369.35	
8	0.7304	1153.1	1173.5	1173.0	0.627	6.031	68.572	20.408	3.903	0.162	0.278	0.009	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1373.18	
9	0.7327	1158.6	1179.2	1178.8	0.672	5.844	67.668	21.845	3.623	0.121	0.210	0.007	0.005	0.003	0.000	0.000	0.000	0.000	0.000	1377.59	
10	0.7364	1160.9	1181.5	1181.1	0.682	6.043	66.862	22.491	3.550	0.127	0.228	0.009	0.006	0.002	0.000	0.000	0.000	0.000	0.000	1376.80	
11	0.7340	1160.1	1180.7	1180.3	0.657	5.897	67.529	21.876	3.622	0.140	0.257	0.010	0.008	0.003	0.000	0.000	0.000	0.000	0.000	1378.16	
12	0.7330	1161.3	1181.9	1181.6	0.602	5.814	67.868	21.495	3.799	0.145	0.258	0.009	0.007	0.004	0.000	0.000	0.000	0.000	0.000	1380.52	
13	0.7343	1159.7	1180.3	1180.0	0.605	6.036	67.322	22.034	3.598	0.138	0.248	0.009	0.006	0.003	0.000	0.000	0.000	0.000	0.000	1377.34	
14	0.7344	1160.1	1180.6	1180.3	0.593	6.038	67.329	21.995	3.654	0.135	0.240	0.008	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1377.68	
15	0.7353	1159.9	1180.5	1180.3	0.608	6.111	67.160	22.094	3.609	0.140	0.257	0.010	0.009	0.003	0.000	0.000	0.000	0.000	0.000	1376.67	
16	0.7362	1156.3	1176.8	1176.6	0.600	6.426	66.939	21.977	3.654	0.138	0.249	0.009	0.006	0.003	0.000	0.000	0.000	0.000	0.000	1373.33	
17	0.7361	1157.7	1178.2	1177.9	0.620	6.303	66.854	22.276	3.567	0.131	0.233	0.008	0.005	0.003	0.000	0.000	0.000	0.000	0.000	1371.56	
18	0.7356	1157.4	1177.9	1177.6	0.616	6.284	67.032	22.046	3.630	0.135	0.240	0.008	0.006	0.003	0.000	0.000	0.000	0.000	0.000	1373.39	
19	0.7361	1156.4	1176.8	1176.6	0.614	6.396	66.980	21.934	3.677	0.137	0.243	0.008	0.006	0.004	0.000	0.000	0.000	0.000	0.000	1371.66	
20	0.7213	1152.8	1173.2	1172.9	0.614	5.225	69.350	21.470	3.047	0.098	0.180	0.006	0.004	0.004	0.000	0.000	0.000	0.000	0.000	1381.45	
21	0.7221	1149.9	1170.3	1170.0	0.621	5.471	69.059	21.570	3.006	0.094	0.167	0.006	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1377.18	
22	0.7274	1150.7	1171.1	1170.8	0.551	6.016	68.780	20.615	3.586	0.148	0.274	0.013	0.012	0.005	0.000	0.000	0.000	0.000	0.000	1373.12	
23	0.7336	1152.6	1173.0	1172.7	0.604	6.406	67.431	21.526	3.639	0.136	0.241	0.008	0.006	0.003	0.000	0.000	0.000	0.000	0.000	1369.51	
24	0.7357	1153.7	1174.1	1173.9	0.614	6.524	67.021	21.785	3.655	0.136	0.246	0.009	0.007	0.003	0.000	0.000	0.000	0.000	0.000	1368.85	
25	0.7354	1152.4	1172.8	1172.6	0.613	6.579	66.911	21.961	3.570	0.124	0.224	0.008	0.006	0.003	0.000	0.000	0.000	0.000	0.000	1367.56	
26	0.7345	1150.2	1170.6	1170.4	0.619	6.612	66.844	22.209	3.395	0.111	0.196	0.006	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1365.93	
27	0.7325	1146.6	1166.9	1166.7	0.630	6.636	66.990	22.238	3.228	0.098	0.170	0.005	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1363.42	
28	0.7354	1149.6	1169.9	1169.7	0.661	6.680	66.651	22.281	3.437	0.105	0.176	0.004	0.001	0.003	0.000	0.000	0.000	0.000	0.000	1364.23	
29	0.7374	1152.3	1172.7	1172.5	0.663	6.689	66.318	22.557	3.470	0.106	0.185	0.006	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1365.71	
30	0.7383	1154.0	1174.5	1174.3	0.647	6.701	66.202	22.553	3.620	0.101	0.170	0.004	0.001	0.003	0.000	0.000	0.000	0.000	0.000	1366.84	
31	0.7384	1150.2	1170.6	1170.4	0.620	6.977	66.039	22.548	3.543	0.097	0.167	0.004	0.001	0.003	0.000	0.000	0.000	0.000	0.000	1362.32	
Avg	0.7331	1154.0	1174.4	1174.1	0.614	6.258	67.419	21.800	3.543	0.127	0.225	0.007	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1371.68	

Zone 262

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	2501030	Specific Gravity:	0.6593
GQ Source Name:	LIGNITE PLANT	BTU Base:	Dry
Effective Date:	10/1/2009 9:00:00 AM	Dry Heat Value:	1125.52
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1105.93
Pressure Base:	14.730	As Deliv. Heat Value:	1125.52
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	79.258		
C2	Ethane	16.579		4.421
C3	Propane	1.035	0.284	0.284
IC4	Iso-Butane	0.001	0.000	0.000
NC4	N-Butane	0.002	0.001	0.001
IC5	Iso-Pentane	0.000	0.000	0.000
NC5	N-Pentane	0.001	0.000	0.000
C6+	Hexanes Plus	0.031	0.014	0.013
CO2	Carbon Dioxide	0.141		
N2	Nitrogen	2.947		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		99.995	0.300	4.719

Sample Date: 10/30/2009 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks: Zone 263

Analysis Remarks:

GQ Source Daily Summary

October 2009

Number: 043

Pressure Base: 14.730

Contract Day: 1

Name: BISMARCK-CLEVELAND

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7288	1146.7	1167.0	1166.0	0.583	6.342	68.115	21.229	3.354	0.126	0.227	0.008	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1367.04
2	0.7291	1147.2	1167.5	1166.5	0.597	6.322	67.914	21.557	3.264	0.115	0.207	0.008	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1367.33
3	0.7354	1155.6	1176.1	1175.0	0.604	6.381	67.103	21.921	3.568	0.137	0.255	0.011	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1371.49
4	0.7363	1156.8	1177.3	1176.2	0.608	6.394	66.996	21.911	3.677	0.137	0.252	0.009	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1371.99
5	0.7351	1154.3	1174.7	1173.7	0.612	6.425	67.100	21.898	3.575	0.129	0.236	0.009	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1370.18
6	0.7278	1149.1	1169.5	1168.4	0.582	6.103	68.549	20.845	3.537	0.130	0.230	0.008	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1370.85
7	0.7234	1142.9	1163.1	1162.1	0.556	6.106	69.208	20.400	3.378	0.121	0.209	0.007	0.005	0.011	0.000	0.000	0.000	0.000	0.000	1367.60
8	0.7250	1150.1	1170.4	1169.4	0.583	5.772	69.465	20.032	3.718	0.148	0.257	0.008	0.006	0.011	0.000	0.000	0.000	0.000	0.000	1374.63
9	0.7329	1154.7	1175.1	1174.1	0.690	6.076	67.868	21.229	3.731	0.136	0.241	0.011	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1372.65
10	0.7328	1157.8	1178.3	1177.3	0.691	5.879	67.396	22.339	3.369	0.108	0.194	0.008	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1376.46
11	0.7352	1160.8	1181.4	1180.4	0.686	5.926	67.407	21.897	3.636	0.142	0.271	0.012	0.011	0.010	0.000	0.000	0.000	0.000	0.000	1377.79
12	0.7321	1160.4	1180.9	1179.9	0.618	5.765	68.033	21.449	3.694	0.145	0.265	0.011	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1380.16
13	0.7350	1161.6	1182.2	1181.3	0.618	5.965	67.442	21.803	3.738	0.142	0.262	0.011	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1378.87
14	0.7327	1159.6	1180.1	1179.2	0.604	5.894	67.661	21.880	3.561	0.132	0.243	0.009	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1378.64
15	0.7313	1155.1	1175.6	1174.7	0.617	6.012	67.939	21.486	3.540	0.132	0.246	0.010	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1374.67
16	0.7359	1158.0	1178.5	1177.6	0.619	6.258	67.070	22.020	3.620	0.136	0.251	0.010	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1373.91
17	0.7348	1156.4	1176.9	1175.9	0.624	6.362	67.167	21.757	3.680	0.138	0.238	0.009	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1372.95
18	0.7356	1156.0	1176.5	1175.5	0.618	6.362	67.167	21.757	3.680	0.136	0.238	0.009	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1371.71
19	0.7361	1156.0	1176.4	1175.4	0.627	6.394	67.053	21.845	3.675	0.135	0.245	0.010	0.008	0.010	0.000	0.000	0.000	0.000	0.000	1371.24
20	0.7257	1153.3	1173.7	1172.7	0.623	5.592	68.697	21.520	3.234	0.108	0.201	0.008	0.007	0.010	0.000	0.000	0.000	0.000	0.000	1377.85
21	0.7191	1150.1	1170.4	1169.4	0.634	5.149	69.619	21.474	2.855	0.086	0.161	0.007	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1380.28
22	0.7287	1149.9	1170.3	1169.2	0.581	6.132	68.466	20.848	3.557	0.136	0.247	0.011	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1371.04
23	0.7336	1154.0	1174.4	1173.4	0.617	6.298	67.575	21.421	3.673	0.137	0.252	0.010	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1371.15
24	0.7359	1154.7	1175.1	1174.2	0.620	6.461	67.070	21.771	3.672	0.133	0.246	0.010	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1369.94
25	0.7371	1154.9	1175.4	1174.4	0.619	6.570	66.715	22.082	3.621	0.128	0.238	0.010	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1368.99
26	0.7342	1150.6	1171.0	1170.1	0.630	6.545	66.966	22.131	3.399	0.099	0.197	0.008	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1366.59
27	0.7336	1148.4	1168.8	1167.9	0.645	6.597	66.945	22.217	3.299	0.089	0.176	0.007	0.006	0.009	0.000	0.000	0.000	0.000	0.000	1364.60
28	0.7344	1149.6	1169.9	1169.0	0.663	6.576	66.891	22.175	3.399	0.101	0.175	0.006	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1365.19
29	0.7373	1152.0	1172.4	1171.5	0.676	6.681	66.415	22.442	3.467	0.106	0.190	0.008	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1365.37
30	0.7328	1149.6	1170.0	1169.1	0.659	6.431	67.398	21.661	3.545	0.102	0.181	0.007	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1366.69
31	0.7370	1149.1	1169.5	1168.6	0.636	6.888	66.357	22.346	3.483	0.098	0.173	0.006	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1362.27
Avg	0.7324	1153.0	1173.8	1172.9	0.624	6.212	67.604	21.666	3.518	0.124	0.226	0.009	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1371.61

Zone 271

GQ Source Daily Summary

October 2009

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

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7251	1145.8	1166.0	1165.9	0.570	6.071	68.672	21.150	3.167	0.121	0.225	0.010	0.009	0.005	0.000	0.000	0.000	0.000	0.000	1369.40
2	0.7290	1147.3	1167.6	1167.7	0.575	6.332	67.936	21.481	3.315	0.123	0.219	0.008	0.006	0.004	0.000	0.000	0.000	0.000	0.000	1367.54
3	0.7313	1149.2	1169.6	1169.5	0.602	6.398	67.326	21.753	3.363	0.122	0.217	0.008	0.006	0.004	0.000	0.000	0.000	0.000	0.000	1367.61
4	0.7366	1158.0	1178.5	1178.6	0.600	6.353	66.885	22.077	3.665	0.140	0.257	0.010	0.009	0.004	0.000	0.000	0.000	0.000	0.000	1373.17
5	0.7360	1155.9	1176.4	1176.4	0.606	6.422	66.954	21.955	3.660	0.136	0.247	0.009	0.007	0.003	0.000	0.000	0.000	0.000	0.000	1371.22
6	0.7345	1153.4	1173.8	1173.7	0.609	6.427	67.151	21.857	3.578	0.129	0.231	0.008	0.007	0.003	0.000	0.000	0.000	0.000	0.000	1369.64
7	0.7247	1145.3	1165.6	1165.5	0.571	6.056	69.104	20.367	3.524	0.132	0.228	0.008	0.006	0.004	0.000	0.000	0.000	0.000	0.000	1369.23
8	0.7299	1143.3	1163.6	1163.6	0.541	5.941	69.471	20.341	3.360	0.123	0.207	0.006	0.005	0.004	0.000	0.000	0.000	0.000	0.000	1369.72
9	0.7299	1151.4	1171.8	1171.8	0.644	6.066	68.613	20.371	3.849	0.157	0.275	0.011	0.009	0.005	0.000	0.000	0.000	0.000	0.000	1371.52
10	0.7319	1158.9	1179.4	1179.4	0.678	5.743	67.720	22.001	3.520	0.116	0.204	0.008	0.007	0.004	0.000	0.000	0.000	0.000	0.000	1378.64
11	0.7371	1161.5	1182.1	1182.1	0.685	6.057	66.833	22.417	3.608	0.133	0.244	0.011	0.010	0.003	0.000	0.000	0.000	0.000	0.000	1376.93
12	0.7338	1159.6	1180.2	1180.1	0.664	5.900	67.628	21.703	3.673	0.144	0.263	0.011	0.010	0.003	0.000	0.000	0.000	0.000	0.000	1377.70
13	0.7329	1161.3	1181.8	1181.9	0.608	5.788	67.889	21.498	3.791	0.145	0.258	0.011	0.009	0.003	0.000	0.000	0.000	0.000	0.000	1380.55
14	0.7331	1158.3	1178.8	1178.8	0.610	5.998	67.554	21.850	3.581	0.137	0.248	0.010	0.008	0.003	0.000	0.000	0.000	0.000	0.000	1376.73
15	0.7318	1156.7	1177.1	1177.1	0.604	5.979	67.817	21.610	3.599	0.133	0.239	0.009	0.007	0.003	0.000	0.000	0.000	0.000	0.000	1376.09
16	0.7368	1160.1	1180.6	1180.6	0.625	6.210	66.926	22.138	3.675	0.142	0.261	0.011	0.010	0.003	0.000	0.000	0.000	0.000	0.000	1372.48
17	0.7336	1155.1	1175.6	1175.6	0.605	6.249	67.292	21.954	3.517	0.129	0.235	0.009	0.008	0.003	0.000	0.000	0.000	0.000	0.000	1375.45
18	0.7352	1156.8	1177.3	1177.3	0.623	6.264	67.129	21.962	3.628	0.134	0.241	0.009	0.008	0.003	0.000	0.000	0.000	0.000	0.000	1372.48
19	0.7349	1155.6	1175.0	1176.1	0.620	6.312	67.212	21.810	3.644	0.136	0.245	0.010	0.008	0.003	0.000	0.000	0.000	0.000	0.000	1373.05
20	0.7343	1154.6	1175.0	1175.1	0.625	6.316	67.286	21.755	3.624	0.133	0.241	0.010	0.008	0.003	0.000	0.000	0.000	0.000	0.000	1371.94
21	0.7226	1152.2	1172.6	1172.8	0.620	5.361	69.170	21.404	3.132	0.103	0.191	0.008	0.007	0.003	0.000	0.000	0.000	0.000	0.000	1371.22
22	0.7221	1149.7	1170.0	1170.0	0.627	5.470	69.110	21.473	3.038	0.095	0.170	0.007	0.006	0.003	0.000	0.000	0.000	0.000	0.000	1379.58
23	0.7293	1150.7	1171.1	1171.1	0.581	6.139	68.358	20.887	3.616	0.140	0.254	0.012	0.011	0.003	0.000	0.000	0.000	0.000	0.000	1376.95
24	0.7348	1153.2	1173.6	1173.6	0.630	6.439	67.268	21.566	3.690	0.137	0.249	0.010	0.009	0.003	0.000	0.000	0.000	0.000	0.000	1371.35
25	0.7361	1156.0	1176.4	1176.4	0.587	6.441	66.895	22.012	3.691	0.124	0.228	0.009	0.007	0.005	0.000	0.000	0.000	0.000	0.000	1369.13
26	0.7348	1150.8	1171.2	1171.1	0.623	6.598	66.955	21.959	3.514	0.118	0.215	0.009	0.008	0.003	0.000	0.000	0.000	0.000	0.000	1371.30
27	0.7331	1148.0	1168.3	1168.3	0.627	6.603	67.111	21.956	3.387	0.107	0.192	0.007	0.006	0.003	0.000	0.000	0.000	0.000	0.000	1366.31
28	0.7323	1145.9	1166.2	1166.3	0.644	6.625	66.979	22.301	3.184	0.092	0.159	0.006	0.006	0.002	0.000	0.000	0.000	0.000	0.000	1364.54
29	0.7368	1152.8	1173.2	1173.2	0.673	6.592	66.559	22.297	3.562	0.110	0.191	0.007	0.006	0.002	0.000	0.000	0.000	0.000	0.000	1362.87
30	0.7322	1146.5	1166.8	1166.8	0.664	6.557	67.389	21.621	3.451	0.107	0.193	0.009	0.008	0.001	0.000	0.000	0.000	0.000	0.000	1366.76
31	0.7371	1152.4	1172.8	1172.9	0.652	6.670	66.363	22.504	3.530	0.098	0.170	0.006	0.005	0.002	0.000	0.000	0.000	0.000	0.000	1363.54
AVG	0.7321	1153.0	1173.5	1173.5	0.619	6.206	67.605	21.678	3.521	0.126	0.226	0.009	0.007	0.003	0.000	0.000	0.000	0.000	0.000	1371.56

Zone 272

GQ Source Daily Summary

October 2009

Number: 061 Pressure Base: 14.730 Contract Day: 1

Name: CLEVELAND-GRAFTON 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	As Del																
1	0.7254	1146.3	1166.6	1166.6	0.571	6.070	68.596	21.216	3.176	0.122	0.226	0.010	0.009	0.005	0.000	0.000	0.000	0.000	0.000	1369.77
2	0.7288	1147.2	1167.5	1167.6	0.574	6.318	67.964	21.491	3.296	0.121	0.218	0.008	0.006	0.004	0.000	0.000	0.000	0.000	0.000	1367.69
3	0.7312	1148.7	1169.1	1168.9	0.602	6.417	67.548	21.722	3.358	0.121	0.214	0.008	0.006	0.004	0.000	0.000	0.000	0.000	0.000	1367.20
4	0.7355	1157.6	1178.1	1178.0	0.600	6.376	66.916	22.012	3.672	0.141	0.259	0.011	0.009	0.004	0.000	0.000	0.000	0.000	0.000	1372.74
5	0.7359	1155.6	1176.1	1175.8	0.606	6.430	66.996	21.905	3.660	0.136	0.246	0.009	0.007	0.003	0.000	0.000	0.000	0.000	0.000	1371.01
6	0.7346	1153.2	1173.6	1173.5	0.610	6.446	67.112	21.888	3.568	0.138	0.230	0.008	0.007	0.003	0.000	0.000	0.000	0.000	0.000	1369.34
7	0.7248	1145.3	1165.6	1165.6	0.573	6.062	69.083	20.368	3.535	0.132	0.229	0.007	0.006	0.004	0.000	0.000	0.000	0.000	0.000	1369.11
8	0.7210	1142.8	1163.0	1162.9	0.541	5.929	69.588	20.241	3.355	0.123	0.207	0.006	0.005	0.005	0.000	0.000	0.000	0.000	0.000	1369.66
9	0.7298	1151.4	1171.8	1171.7	0.643	6.052	68.631	20.374	3.844	0.157	0.275	0.011	0.009	0.005	0.000	0.000	0.000	0.000	0.000	1371.64
10	0.7318	1158.6	1179.2	1179.2	0.679	5.741	67.732	21.993	3.517	0.136	0.204	0.008	0.007	0.004	0.000	0.000	0.000	0.000	0.000	1378.46
11	0.7369	1161.4	1182.0	1181.8	0.688	6.045	66.854	22.431	3.583	0.132	0.242	0.011	0.010	0.003	0.000	0.000	0.000	0.000	0.000	1376.93
12	0.7340	1159.7	1180.2	1180.2	0.666	5.910	67.540	21.822	3.634	0.142	0.262	0.011	0.010	0.003	0.000	0.000	0.000	0.000	0.000	1377.59
13	0.7328	1161.5	1182.0	1182.2	0.610	5.764	67.899	21.527	3.775	0.144	0.258	0.011	0.009	0.004	0.000	0.000	0.000	0.000	0.000	1380.88
14	0.7324	1157.3	1177.8	1177.1	0.612	6.003	67.657	21.744	3.577	0.138	0.249	0.010	0.008	0.003	0.000	0.000	0.000	0.000	0.000	1376.18
15	0.7319	1156.6	1177.1	1177.0	0.603	5.986	67.839	21.555	3.624	0.134	0.240	0.009	0.008	0.003	0.000	0.000	0.000	0.000	0.000	1375.96
16	0.7364	1159.7	1180.3	1180.5	0.623	6.199	66.798	22.075	3.671	0.142	0.262	0.011	0.010	0.258	0.000	0.000	0.000	0.000	0.000	1375.36
17	0.7339	1155.1	1175.6	1175.6	0.607	6.267	67.257	21.957	3.528	0.129	0.235	0.009	0.008	0.003	0.000	0.000	0.000	0.000	0.000	1372.29
18	0.7353	1156.9	1177.3	1177.0	0.624	6.281	67.108	21.967	3.623	0.134	0.240	0.009	0.008	0.003	0.000	0.000	0.000	0.000	0.000	1373.00
19	0.7350	1155.6	1176.1	1176.1	0.619	6.323	67.210	21.778	3.666	0.137	0.246	0.010	0.008	0.004	0.000	0.000	0.000	0.000	0.000	1371.86
20	0.7343	1154.6	1175.0	1175.0	0.626	6.322	67.271	21.766	3.621	0.133	0.240	0.010	0.008	0.003	0.000	0.000	0.000	0.000	0.000	1371.24
21	0.7223	1152.0	1172.4	1172.4	0.620	5.354	69.186	21.429	3.107	0.101	0.186	0.008	0.007	0.003	0.000	0.000	0.000	0.000	0.000	1379.61
22	0.7219	1149.4	1169.8	1169.8	0.627	5.457	69.152	21.456	3.026	0.095	0.170	0.007	0.006	0.003	0.000	0.000	0.000	0.000	0.000	1376.87
23	0.7294	1151.1	1171.5	1171.4	0.581	6.133	68.354	20.881	3.627	0.141	0.257	0.012	0.010	0.003	0.000	0.000	0.000	0.000	0.000	1371.64
24	0.7352	1153.2	1173.7	1173.6	0.630	6.474	67.205	21.581	3.700	0.138	0.250	0.010	0.008	0.003	0.000	0.000	0.000	0.000	0.000	1368.85
25	0.7358	1155.3	1175.8	1175.7	0.577	6.493	66.942	21.919	3.696	0.124	0.229	0.009	0.007	0.003	0.000	0.000	0.000	0.000	0.000	1370.72
26	0.7349	1150.8	1171.1	1171.3	0.623	6.594	66.956	21.951	3.521	0.119	0.216	0.009	0.008	0.003	0.000	0.000	0.000	0.000	0.000	1366.18
27	0.7332	1148.1	1168.4	1168.4	0.627	6.605	67.096	21.962	3.394	0.108	0.192	0.007	0.006	0.003	0.000	0.000	0.000	0.000	0.000	1366.58
28	0.7328	1146.2	1166.5	1166.7	0.644	6.647	66.908	22.323	3.205	0.094	0.164	0.006	0.005	0.003	0.000	0.000	0.000	0.000	0.000	1362.72
29	0.7371	1152.9	1173.3	1173.4	0.674	6.599	66.533	22.304	3.573	0.110	0.191	0.007	0.006	0.002	0.000	0.000	0.000	0.000	0.000	1366.65
30	0.7327	1147.3	1167.6	1167.7	0.664	6.559	67.335	22.617	3.506	0.109	0.193	0.009	0.008	0.002	0.000	0.000	0.000	0.000	0.000	1364.04
31	0.7371	1152.3	1172.7	1172.6	0.652	6.687	66.385	22.449	3.544	0.108	0.171	0.006	0.005	0.002	0.000	0.000	0.000	0.000	0.000	1365.90
AVG	0.7321	1153.0	1173.4	1173.8	0.619	6.211	67.602	21.668	3.522	0.126	0.226	0.009	0.008	0.012	0.000	0.000	0.000	0.000	0.000	1371.47

Zone 273

GQ Source Daily Summary

October 2009

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	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT	
1	0.7291	1148.1	1168.5	1167.8	0.585	6.280	68.008	21.451	3.307	0.123	0.222	0.008	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1368.45	
2	0.7304	1147.7	1168.0	1167.4	0.598	6.410	67.742	21.554	3.341	0.119	0.212	0.008	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1366.69	
3	0.7354	1156.1	1176.6	1176.0	0.605	6.357	67.077	21.986	3.555	0.136	0.253	0.011	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1372.00	
4	0.7364	1157.3	1177.8	1177.2	0.608	6.373	66.949	22.005	3.655	0.135	0.249	0.009	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1372.50	
5	0.7359	1156.4	1176.9	1176.3	0.613	6.375	66.942	22.104	3.573	0.130	0.238	0.009	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1371.89	
6	0.7294	1150.3	1170.7	1170.1	0.587	6.173	68.248	21.043	3.560	0.131	0.233	0.008	0.006	0.010	0.000	0.000	0.000	0.000	0.000	1370.75	
7	0.7081	1140.6	1160.8	1160.2	0.409	5.032	71.099	20.886	2.323	0.039	0.149	0.005	0.005	0.009	0.000	0.000	0.000	0.000	0.000	1379.91	
8	0.6251	1034.2	1052.5	1052.0	0.798	3.121	87.135	7.845	0.986	0.033	0.067	0.002	0.002	0.005	0.000	0.000	0.000	0.000	0.000	1331.29	
9	0.6732	1087.1	1106.4	1105.8	0.727	4.521	78.507	13.778	2.228	0.080	0.141	0.006	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1348.46	
10	0.6819	1099.8	1119.2	1118.7	0.731	4.567	76.719	15.494	2.270	0.073	0.130	0.005	0.004	0.006	0.000	0.000	0.000	0.000	0.000	1355.48	
11	0.7234	1148.1	1168.5	1167.9	0.690	5.581	69.527	20.438	3.353	0.131	0.248	0.012	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1373.83	
12	0.6678	1082.8	1102.0	1101.5	0.751	4.245	79.586	13.046	2.118	0.083	0.152	0.007	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1348.51	
13	0.6507	1059.2	1078.0	1077.5	0.787	4.017	82.617	10.689	1.693	0.065	0.117	0.005	0.004	0.005	0.000	0.000	0.000	0.000	0.000	1336.37	
14	0.6457	1052.9	1071.5	1071.1	0.789	3.931	83.422	10.172	1.518	0.055	0.100	0.004	0.003	0.005	0.000	0.000	0.000	0.000	0.000	1333.51	
15	0.6314	1031.6	1049.8	1049.4	0.686	4.041	85.801	8.188	1.153	0.043	0.078	0.004	0.003	0.004	0.000	0.000	0.000	0.000	0.000	1321.23	
16	0.7290	1149.1	1169.5	1169.0	0.621	6.154	68.240	21.172	3.424	0.128	0.236	0.010	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1369.71	
17	0.7346	1156.7	1177.2	1176.7	0.623	6.209	67.235	21.987	3.552	0.130	0.239	0.009	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1373.59	
18	0.7361	1157.3	1177.8	1177.2	0.619	6.323	67.072	21.898	3.674	0.136	0.249	0.010	0.008	0.011	0.000	0.000	0.000	0.000	0.000	1372.83	
19	0.7364	1155.8	1176.3	1175.8	0.626	6.430	67.010	21.831	3.694	0.136	0.246	0.010	0.008	0.010	0.000	0.000	0.000	0.000	0.000	1370.81	
20	0.7265	1153.8	1174.2	1173.8	0.622	5.632	68.585	21.555	3.267	0.110	0.204	0.009	0.007	0.010	0.000	0.000	0.000	0.000	0.000	1377.76	
21	0.7189	1150.3	1170.6	1170.1	0.635	5.122	69.645	21.482	2.853	0.084	0.157	0.007	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1380.66	
22	0.7291	1150.3	1170.7	1170.2	0.581	6.146	68.394	20.893	3.572	0.136	0.247	0.011	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1371.12	
23	0.7341	1154.3	1174.7	1174.2	0.618	6.323	67.523	21.401	3.714	0.139	0.255	0.011	0.009	0.008	0.000	0.000	0.000	0.000	0.000	1371.08	
24	0.7360	1154.8	1175.3	1174.8	0.621	6.468	67.021	21.829	3.654	0.133	0.246	0.010	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1369.90	
25	0.7380	1155.8	1176.3	1175.8	0.619	6.599	66.583	22.138	3.664	0.130	0.241	0.010	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1369.25	
26	0.7279	1143.3	1163.5	1163.0	0.634	6.392	68.141	21.248	3.264	0.106	0.193	0.008	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1363.78	
27	0.7338	1147.8	1168.1	1167.6	0.643	6.654	66.916	22.170	3.321	0.100	0.176	0.007	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1363.70	
28	0.7344	1151.0	1171.4	1170.9	0.662	6.485	66.842	22.386	3.334	0.099	0.172	0.006	0.005	0.008	0.000	0.000	0.000	0.000	0.000	1366.94	
29	0.7064	1117.3	1136.6	1136.6	0.701	5.848	72.063	18.363	2.772	0.085	0.152	0.006	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1353.03	
30	0.5977	996.1	1013.7	1013.4	0.693	3.021	91.971	3.838	0.435	0.016	0.023	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1311.43	
31	0.6177	1017.3	1035.3	1033.4	0.713	3.585	88.257	6.543	0.830	0.025	0.040	0.002	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1317.36	
Avg	0.7045	1121.0	1141.3	1140.7	0.651	5.497	72.609	18.110	2.828	0.101	0.183	0.007	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1359.80	

Zone 2B

GQ Source Daily Summary

October 2009

Number: 271

Pressure Base: 14,730

Contract Day: 1

Name: DICKINSON AREA

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7245	1141.8	1162.1	1161.8	0.560	6.270	68.617	21.093	3.124	0.116	0.211	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	1365.25
2	0.7168	1140.2	1160.4	1160.2	0.474	5.780	69.762	20.895	2.798	0.100	0.183	0.000	0.000	0.008	0.000	0.000	0.000	0.000	0.000	1370.63
3	0.7220	1140.0	1160.1	1159.9	0.508	6.228	69.179	20.535	3.209	0.120	0.214	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	1365.36
4	0.7187	1139.7	1159.9	1159.6	0.459	6.007	69.605	20.605	2.992	0.114	0.210	0.000	0.000	0.007	0.000	0.000	0.000	0.000	0.000	1368.19
5	0.6718	1130.9	1151.0	1150.6	0.061	2.750	76.404	20.088	0.652	0.013	0.021	0.004	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1494.17
6	0.6539	1076.8	1095.9	1095.6	0.537	3.633	80.997	13.587	1.141	0.036	0.066	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	1355.27
7	0.5913	992.9	1010.5	1010.3	0.862	2.358	93.095	3.571	0.113	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1314.02
8	0.5877	990.1	1007.7	1007.5	0.778	2.309	93.751	3.063	0.098	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1314.48
9	0.5834	987.4	1004.9	1004.8	0.801	2.039	94.672	2.404	0.085	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1315.64
10	0.5813	980.1	997.5	997.4	0.914	2.115	95.187	1.714	0.070	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1308.26
11	0.5835	979.3	996.6	996.6	0.900	2.395	94.681	1.952	0.072	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1304.70
12	0.5828	976.7	994.0	994.0	0.923	2.444	94.862	1.692	0.079	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1302.12
13	0.5854	978.5	995.9	995.8	0.873	2.660	94.268	2.086	0.113	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1301.58
14	0.5874	972.7	989.9	989.8	0.704	3.459	93.621	2.055	0.160	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1291.66
15	0.5844	969.4	986.6	986.5	0.827	3.191	94.313	1.594	0.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1290.59
16	0.5836	968.0	985.1	985.1	1.132	2.738	94.854	1.204	0.065	0.003	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1289.56
17	0.5831	968.3	985.5	985.4	1.131	2.673	94.933	1.212	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1290.54
18	0.5843	973.3	990.6	990.5	1.028	2.637	94.606	1.665	0.064	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.91
19	0.5845	972.8	990.0	990.0	1.020	2.697	94.565	1.646	0.072	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.99
20	0.5815	970.6	987.8	987.8	0.809	2.875	94.926	1.320	0.069	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1295.32
21	0.5840	978.2	995.5	995.5	0.719	2.784	94.351	2.071	0.075	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1302.66
22	0.5842	975.6	992.9	993.0	0.737	2.926	94.315	1.948	0.076	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1299.16
23	0.5826	972.8	990.1	990.1	0.766	2.910	94.641	1.621	0.062	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1297.06
24	0.5838	973.3	990.5	990.6	0.823	2.901	94.472	1.739	0.065	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1296.48
25	0.5830	974.1	991.3	991.4	0.806	2.803	94.638	1.684	0.068	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1298.39
26	0.5820	976.1	993.4	993.4	0.793	2.609	94.864	1.658	0.076	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1302.11
27	0.5831	977.9	995.2	995.2	0.822	2.564	94.675	1.849	0.089	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1303.20
28	0.5822	978.8	996.1	996.2	0.760	2.513	94.810	1.836	0.081	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1305.50
29	0.5813	978.4	995.7	995.8	0.661	2.603	94.886	1.764	0.086	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1305.98
30	0.5826	979.0	996.4	996.4	0.754	2.548	94.723	1.879	0.095	0.001	0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1305.35
31	0.5837	985.1	1002.5	1002.5	0.887	2.083	94.702	2.226	0.102	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1312.12
AVG	0.6066	1006.0	1024.2	1024.2	0.769	3.113	90.257	5.299	0.515	0.016	0.029	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1315.04

Zone 31

GQ Source Daily Summary

October 2009

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	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT	
1	0.6870	1100.0	1119.5	1118.7	0.628	5.191	75.541	16.118	2.282	0.080	0.143	0.006	0.005	0.006	0.000	0.000	0.000	0.000	0.000	1350.69	
2	0.5818	976.1	993.4	993.0	0.979	2.312	95.201	1.408	0.089	0.004	0.005	0.001	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1302.37	
3	0.5827	976.6	993.9	993.3	1.035	2.286	95.069	1.508	0.091	0.004	0.005	0.001	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1301.99	
4	0.5824	976.4	993.7	993.2	1.024	2.284	95.127	1.462	0.091	0.004	0.005	0.001	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1302.05	
5	0.5809	974.9	992.1	991.8	0.967	2.325	95.340	1.284	0.075	0.003	0.004	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1301.67	
6	0.5811	972.0	989.2	988.9	1.016	2.442	95.324	1.143	0.067	0.003	0.004	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1297.68	
7	0.5797	974.8	992.1	991.8	0.861	2.375	95.469	1.219	0.068	0.003	0.004	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1302.97	
8	0.5794	979.7	997.0	996.7	0.861	2.050	95.588	1.421	0.073	0.003	0.004	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1309.81	
9	0.5787	978.8	996.2	995.9	0.857	2.045	95.708	1.323	0.062	0.002	0.002	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1309.44	
10	0.5795	974.2	991.4	991.1	0.966	2.235	95.617	1.124	0.052	0.002	0.003	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1302.36	
11	0.5803	972.5	989.7	989.4	0.921	2.481	95.396	1.121	0.072	0.003	0.005	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1299.22	
12	0.5807	971.9	989.1	988.8	0.985	2.461	95.362	1.120	0.063	0.003	0.004	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1299.94	
13	0.5854	976.8	994.1	993.7	0.823	2.850	94.268	1.910	0.139	0.004	0.005	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1283.32	
14	0.5860	965.3	982.4	982.1	0.702	3.791	93.896	1.452	0.140	0.007	0.009	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1290.97	
15	0.5821	967.8	984.9	984.7	0.984	2.839	95.056	1.039	0.063	0.007	0.008	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1285.42	
16	0.5817	963.3	980.3	980.1	1.171	2.790	95.274	0.728	0.030	0.003	0.002	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1292.19	
17	0.5810	967.8	985.0	984.7	1.052	2.634	95.335	0.921	0.049	0.003	0.003	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1290.97	
18	0.5816	967.4	984.6	984.3	1.101	2.642	95.268	0.919	0.058	0.004	0.005	0.001	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1290.97	
19	0.5805	965.5	982.6	982.4	0.934	2.907	95.284	0.812	0.052	0.004	0.004	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1289.66	
20	0.5798	968.8	985.9	985.7	0.790	2.856	95.314	0.970	0.060	0.005	0.004	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1294.85	
21	0.5788	968.7	985.8	985.6	0.736	2.852	95.454	0.894	0.054	0.004	0.003	0.001	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1295.83	
22	0.5793	966.0	983.1	982.9	0.782	2.993	95.374	0.786	0.054	0.005	0.004	0.001	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1291.69	
23	0.5795	966.6	983.7	983.5	0.827	2.905	95.384	0.829	0.047	0.004	0.002	0.000	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1292.27	
24	0.5793	968.5	985.7	985.4	0.828	2.775	95.435	0.905	0.051	0.003	0.003	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1294.97	
25	0.5794	970.6	987.8	987.5	0.802	2.690	95.432	1.004	0.062	0.004	0.004	0.000	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1297.71	
26	0.5803	972.2	989.4	989.1	0.832	2.636	95.294	1.154	0.071	0.005	0.005	0.001	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1298.79	
27	0.5802	973.8	991.0	990.8	0.815	2.553	95.316	1.231	0.073	0.005	0.005	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1301.07	
28	0.5791	973.6	990.9	990.6	0.720	2.600	95.441	1.156	0.072	0.005	0.004	0.001	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1300.12	
29	0.5796	973.1	990.4	990.1	0.725	2.669	95.347	1.167	0.076	0.006	0.006	0.001	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1302.92	
30	0.5806	977.6	995.0	994.7	0.846	2.310	95.308	1.438	0.084	0.005	0.005	0.001	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1305.73	
31	0.5826	981.4	998.8	998.6	0.959	2.092	95.081	1.741	0.111	0.006	0.007	0.001	0.001	0.002	0.000	0.000	0.000	0.000	0.000	1308.60	
Avg	0.5842	976.0	993.5	993.2	0.888	2.673	94.623	1.655	0.143	0.007	0.009	0.001	0.000	0.002	0.000	0.000	0.000	0.000	0.000	1299.82	

Zone 3d

GQ Source Daily Summary

October 2009

Number: 111

Pressure Base: 14.730

Contract Day: 1

Name: LITTLE KNIFE PLANT

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT	
1	0.6711	1138.3	1158.4	1157.8	0.000	2.335	76.220	21.052	0.379	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.07	
2	0.6717	1139.9	1160.1	1158.9	0.000	2.293	76.128	21.150	0.415	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.46	
3	0.6718	1140.2	1160.4	1159.0	0.000	2.287	76.104	21.184	0.412	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.70	
4	0.6723	1141.0	1161.2	1160.0	0.000	2.280	76.037	21.231	0.437	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.24	
5	0.6713	1139.4	1159.5	1158.6	0.000	2.291	76.208	21.078	0.409	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.18	
6	0.6695	1136.6	1156.7	1155.6	0.000	2.284	76.593	20.696	0.413	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.71	
7	0.6721	1140.5	1160.7	1159.8	0.000	2.297	76.034	21.251	0.404	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.74	
8	0.6715	1140.0	1160.2	1159.2	0.000	2.270	76.138	21.195	0.384	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.79	
9	0.6717	1140.1	1160.3	1159.6	0.000	2.282	76.068	21.278	0.359	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.72	
10	0.6718	1140.5	1160.7	1159.7	0.000	2.270	76.080	21.251	0.386	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.05	
11	0.6715	1140.0	1160.2	1158.9	0.000	2.266	76.150	21.189	0.381	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.81	
12	0.6714	1139.6	1159.8	1158.7	0.000	2.277	76.173	21.155	0.382	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.50	
13	0.6696	1136.9	1157.1	1156.3	0.000	2.274	76.522	20.823	0.368	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.01	
14	0.6712	1139.3	1159.5	1158.4	0.000	2.277	76.200	21.143	0.368	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.32	
15	0.6727	1141.6	1161.8	1160.4	0.000	2.286	75.888	21.435	0.378	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.48	
16	0.6711	1139.0	1159.2	1158.1	0.000	2.288	76.216	21.112	0.371	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.04	
17	0.6709	1138.5	1158.6	1157.3	0.000	2.306	76.272	21.010	0.399	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.53	
18	0.6713	1139.2	1159.4	1158.4	0.000	2.291	76.223	21.060	0.412	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.10	
19	0.6713	1139.3	1159.4	1158.3	0.000	2.292	76.196	21.106	0.392	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.11	
20	0.6698	1137.4	1157.5	1156.3	0.000	2.267	76.500	20.833	0.387	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.34	
21	0.6706	1138.3	1158.5	1157.3	0.000	2.285	76.353	20.941	0.407	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.65	
22	0.6697	1137.4	1157.6	1156.6	0.000	2.253	76.533	20.803	0.398	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.52	
23	0.6701	1137.4	1157.5	1156.4	0.000	2.294	76.439	20.861	0.393	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.02	
24	0.6705	1138.3	1158.4	1157.3	0.000	2.279	76.368	20.936	0.404	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.70	
25	0.6695	1135.9	1156.1	1155.1	0.000	2.328	76.559	20.702	0.398	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.86	
26	0.6688	1135.4	1155.5	1154.4	0.000	2.290	76.716	20.583	0.398	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.97	
27	0.6690	1135.2	1155.3	1154.4	0.000	2.320	76.660	20.621	0.386	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1412.52	
28	0.6696	1136.3	1156.4	1155.6	0.000	2.317	76.529	20.755	0.386	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.15	
29	0.6703	1137.3	1157.4	1156.4	0.000	2.319	76.360	20.952	0.356	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.70	
30	0.6708	1138.2	1158.4	1157.3	0.000	2.310	76.260	21.059	0.360	0.005	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.35	
31	0.6706	1137.8	1157.9	1156.6	0.000	2.321	76.329	20.948	0.389	0.006	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.96	
Avg	0.6708	1139.0	1158.7	1157.6	0.000	2.291	76.292	21.013	0.391	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.72	

Zone 33

GQ Source Daily Summary

October 2009

Number: 331

Pressure Base: 14.730

Contract Day: 1

Name: MARMARTH PLANT

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT	
1	0.8058	1152.7	1173.1	1172.1	2.386	10.499	53.297	30.281	3.181	0.077	0.240	0.010	0.026	0.003	0.000	0.000	0.000	0.000	0.000	1306.86	
2	0.8061	1154.3	1174.7	1173.5	2.386	10.427	53.328	30.252	3.249	0.077	0.242	0.010	0.027	0.003	0.000	0.000	0.000	0.000	0.000	1308.43	
3	0.8044	1156.1	1176.5	1175.2	2.216	10.418	53.497	30.288	3.210	0.080	0.249	0.011	0.028	0.004	0.000	0.000	0.000	0.000	0.000	1311.82	
4	0.8036	1153.8	1174.2	1173.0	2.244	10.441	53.594	30.220	3.135	0.079	0.245	0.010	0.027	0.004	0.000	0.000	0.000	0.000	0.000	1309.86	
5	0.8046	1156.5	1176.9	1176.0	2.253	10.361	53.426	30.452	3.131	0.082	0.253	0.011	0.028	0.004	0.000	0.000	0.000	0.000	0.000	1312.06	
6	0.8033	1150.9	1171.3	1170.0	2.325	10.470	53.746	29.937	3.153	0.079	0.247	0.011	0.029	0.003	0.000	0.000	0.000	0.000	0.000	1306.79	
7	0.7698	1135.9	1156.0	1155.1	0.922	10.370	57.879	28.521	2.069	0.053	0.156	0.007	0.019	0.004	0.000	0.000	0.000	0.000	0.000	1317.54	
8	0.7790	1161.6	1182.2	1181.4	0.783	9.876	56.364	30.323	2.348	0.069	0.202	0.009	0.022	0.005	0.000	0.000	0.000	0.000	0.000	1339.38	
9	0.7923	1168.6	1189.3	1188.7	1.477	9.641	54.782	31.056	2.715	0.073	0.219	0.009	0.024	0.003	0.000	0.000	0.000	0.000	0.000	1336.15	
10	0.8031	1163.5	1184.1	1183.4	2.166	9.916	53.491	31.133	2.939	0.078	0.238	0.010	0.026	0.003	0.000	0.000	0.000	0.000	0.000	1321.38	
11	0.8069	1165.0	1185.7	1184.9	2.316	9.960	52.983	31.325	3.046	0.080	0.248	0.011	0.028	0.003	0.000	0.000	0.000	0.000	0.000	1319.89	
12	0.8049	1158.8	1179.3	1178.2	2.331	10.132	53.337	30.822	3.009	0.079	0.248	0.011	0.028	0.003	0.000	0.000	0.000	0.000	0.000	1314.43	
13	0.8064	1163.1	1183.7	1183.0	2.364	9.955	53.127	31.139	3.045	0.079	0.248	0.011	0.028	0.003	0.000	0.000	0.000	0.000	0.000	1318.16	
14	0.7961	1149.7	1170.1	1169.2	2.026	10.319	54.425	30.215	2.672	0.072	0.229	0.010	0.028	0.004	0.000	0.000	0.000	0.000	0.000	1311.39	
15	0.8040	1157.2	1177.7	1176.6	2.264	10.242	53.605	30.376	3.119	0.084	0.264	0.012	0.031	0.004	0.000	0.000	0.000	0.000	0.000	1313.38	
16	0.8069	1153.7	1174.1	1173.1	2.437	10.459	53.238	30.269	3.206	0.084	0.263	0.011	0.030	0.003	0.000	0.000	0.000	0.000	0.000	1307.12	
17	0.8076	1153.6	1174.0	1172.3	2.485	10.462	53.094	30.378	3.211	0.080	0.248	0.011	0.028	0.003	0.000	0.000	0.000	0.000	0.000	1306.41	
18	0.8046	1149.2	1169.6	1167.9	2.357	10.641	53.504	29.954	3.182	0.078	0.242	0.010	0.027	0.003	0.000	0.000	0.000	0.000	0.000	1303.89	
19	0.8053	1151.0	1171.4	1170.2	2.395	10.542	53.391	30.152	3.156	0.078	0.244	0.010	0.028	0.003	0.000	0.000	0.000	0.000	0.000	1305.33	
20	0.8054	1152.0	1172.4	1171.3	2.384	10.506	53.412	30.146	3.177	0.080	0.252	0.011	0.029	0.003	0.000	0.000	0.000	0.000	0.000	1306.40	
21	0.8056	1150.1	1170.4	1169.3	2.412	10.601	53.438	29.945	3.224	0.081	0.255	0.011	0.029	0.004	0.000	0.000	0.000	0.000	0.000	1304.02	
22	0.8135	1141.8	1162.0	1160.7	3.291	10.509	52.816	29.681	3.314	0.083	0.261	0.011	0.030	0.004	0.000	0.000	0.000	0.000	0.000	1288.37	
23	0.8119	1146.4	1166.7	1165.3	3.046	10.447	52.894	29.932	3.295	0.083	0.259	0.011	0.030	0.004	0.000	0.000	0.000	0.000	0.000	1294.88	
24	0.8110	1147.0	1167.3	1165.9	2.979	10.431	52.964	29.990	3.258	0.082	0.254	0.011	0.029	0.003	0.000	0.000	0.000	0.000	0.000	1296.19	
25	0.8110	1149.1	1169.4	1168.3	2.904	10.416	52.909	30.125	3.260	0.083	0.260	0.011	0.029	0.003	0.000	0.000	0.000	0.000	0.000	1298.60	
26	0.8111	1152.1	1172.5	1171.1	2.806	10.393	52.886	30.186	3.332	0.085	0.266	0.011	0.029	0.003	0.000	0.000	0.000	0.000	0.000	1301.86	
27	0.8097	1151.4	1171.8	1170.5	2.749	10.397	52.998	30.222	3.249	0.083	0.259	0.011	0.029	0.003	0.000	0.000	0.000	0.000	0.000	1302.15	
28	0.8087	1153.0	1173.4	1172.4	2.636	10.377	53.125	30.214	3.245	0.087	0.271	0.011	0.029	0.003	0.000	0.000	0.000	0.000	0.000	1304.78	
29	0.8085	1155.4	1175.8	1174.9	2.599	10.267	53.173	30.301	3.247	0.088	0.278	0.012	0.032	0.003	0.000	0.000	0.000	0.000	0.000	1307.66	
30	0.8095	1154.8	1175.3	1174.1	2.622	10.357	53.023	30.292	3.303	0.087	0.272	0.012	0.030	0.003	0.000	0.000	0.000	0.000	0.000	1306.25	
31	0.8087	1152.2	1172.6	1170.9	2.624	10.437	53.067	30.250	3.247	0.081	0.252	0.011	0.028	0.003	0.000	0.000	0.000	0.000	0.000	1303.92	
Avg	0.8042	1154.0	1174.0	1172.9	2.361	10.331	53.575	30.270	3.094	0.079	0.247	0.011	0.028	0.003	0.000	0.000	0.000	0.000	0.000	1309.20	

*** End of Report***

Zone 34

Williston Basin Interstate Pipeline Co. GQ Source Analysis

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

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	95.826		
C2	Ethane	0.305		0.081
C3	Propane	0.009	0.002	0.002
IC4	Iso-Butane	0.007	0.002	0.002
NC4	N-Butane	0.000	0.000	0.000
IC5	Iso-Pentane	0.000	0.000	0.000
NC5	N-Pentane	0.000	0.000	0.000
C6+	Hexanes Plus	0.000	0.000	0.000
CO2	Carbon Dioxide	0.096		
N2	Nitrogen	3.757		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		100.000	0.005	0.086

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

Sample Remarks: Zone 35

Analysis Remarks:

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

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

STATE	ZONE	ZONE BOUNDARY	12 MONTH AVERAGE	OCT 09	SEPT 09	AUG 09	JULY 09	JUNE 09	MAY 09	APR 09	MAR 09	FEB 09	JAN 09	DEC 08	NOV 08	ZONE
MT/ND	211	Sidney Area	1145	1187	1192	1195	1202	1203	1200	1170	1100	1010	1021	1065	1184	21
ND	24	Williston Area	1161	1182	1181	1175	1143	1196	1180	1149	1106	1101	1158	1195	1171	24
ND	25	Watford City Area	1128	1121	1123	1130	1125	1134	1130	1128	1128	1128	1130	1127	1126	25
ND	261	Williston - Tioga - Minot Line	1128	1160	1138	1129	1126	1131	1133	1136	1110	1101	1102	1123	1148	261
ND	262	Minot Area	1145	1174	1168	1165	1165	1157	1144	1143	1130	1114	1105	1129	1147	262
ND	263	Tioga - Portal	1121	1126	1138	1141	1141	1127	1122	1098	1092	1099	1103	1139	1125	263
ND	264	Williston - Ray	1161	1182	1181	1175	1143	1196	1180	1149	1106	1101	1158	1195	1171	264
ND	271	Bismarck - Cleveland	1120	1174	1166	1162	1160	1155	1143	1118	1043	1058	1056	1081	1129	271
ND	272	Cleveland - Mapleton	1121	1174	1167	1163	1162	1156	1143	1118	1043	1057	1056	1080	1129	272
ND	273	Cleveland - Grafton	1121	1173	1167	1163	1162	1155	1143	1118	1043	1057	1056	1080	1129	273
ND	28	Bismarck - Cabin Creek	1081	1141	1166	1163	1162	1155	1143	1118	1043	1057	1056	1080	1129	28
ND	31	Dickinson Area	1029	1024	1140	1052	998	1044	996	1007	1013	1019	1028	1020	1013	31
ND/MT	32	Cabin Creek - Dickinson	1020	994	1140	1040	980	1018	981	997	1013	1019	1027	1018	1008	32
ND	33	Killdeer	1159	1159	1158	1160	1164	1161	1163	1157	1156	1157	1157	1154	1160	33
ND	34	Bowman Area	1165	1174	1174	1172	1170	1148	1148	1167	1172	1164	1168	1168	1160	34
ND	35	Baker Field - North Dakota	976	978	978	978	978	978	974	974	974	974	974	974	974	35

**THERMAL ZONE VARIANCE
DOCUMENTATION**

October 2009

<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
261	22	Receipt from Williston Area and Lignite Plant
28	-25	Receipt from Cabin Creek, Bismarck and Dickinson Area
31	-116	Receipt from Cabin Creek Area, going East
32	-146	Receipt from Cabin Creek Area, going East