

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

July 6, 2009

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JUL 07 2009

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

**PUBLIC SERVICE COMMISSION**

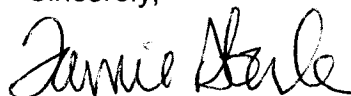
Re: Case No. 11,006 (Therm Billing)  
Monthly Report – May 2009

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 June 2009.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our supplier for the month of May 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 May.

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  
JUNE 2009

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
12	314	APPLE VALLEY	271	1.1029
12	327	BISMARCK	28	1.1019
12	343	CARRINGTON	273	1.1029
12	344	CLEVELAND	272	1.0951
12	364	CAVALIER	273	1.1261
12	365	DAWSON	271	1.0951
12	374	FT TOTTEN	273	1.1107
12	375	DEVILS LAKE	273	1.1107
12	379	BARLOW	273	1.1029
12	387	ELDRIDGE	272	1.1029
12	411	GLEN ULLIN	31	.9407
12	417	GRAFTON	273	1.1339
12	439	HANKINSON	600	1.0768
12	449	JAMESTOWN	272	1.1107
12	463	LANGDON	273	1.1029
12	475	LINTON	802	.9745
12	478	LINCOLN	28	1.1019
12	494	MEDINA	271	1.0951
12	498	MANDAN	28	1.1019
12	524	NEW SALEM	28	1.0786
12	532	NEW ROCKFORD	273	1.1029
12	539	PARK RIVER	273	1.1261
12	574	SANBORN	272	1.1107
12	593	STEELE	271	1.0951
12	598	SHEYENNE	273	1.1107
12	610	TAPPEN	271	1.0951
12	625	VALLEY CITY	272	1.1183
12	629	WALHALLA	273	1.1261
12	647	WILTON	262	1.0805
12	717	SPIRITWOOD	272	1.1107
12	718	FAIRMOUNT	600	1.0746
12	732	MSR SITE	273	1.1029
12	733	PAR SITE	273	1.1029
15	303	ALEXANDER	25	1.0673
15	308	ARNEGARD	25	1.0673

MONTANA-DAKOTA UTILITIES CO.  
Therm Billing Factor  
JUNE 2009

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	318	BEACH	32	.9065
15	319	BELFIELD	32	.9132
15	323	BERTHOLD	262	1.0805
15	330	BOWMAN	34	.9815
15	337	BURLINGTON	262	1.1038
15	368	DES LACS	262	1.0883
15	369	DICKINSON	31	.9339
15	384	EPPING	264	1.1145
15	407	GLADSTONE	31	.9339
15	413	GOLVA	32	.8933
15	416	GARRISON	262	1.0883
15	429	HEBRON	31	.9407
15	459	KILLDEER	33	1.0985
15	469	LEFOR	31	.9339
15	474	LIGNITE	263	1.0674
15	500	MARMARTH	34	.9888
15	505	MINOT	262	1.1038
15	510	MOTT	31	.9339
15	512	MAX	262	1.0805
15	522	NEW ENGLAND	31	.9272
15	540	PALERMO	262	1.0805
15	558	RAY	264	1.1145
15	561	REGENT	31	.9339
15	563	RHAME	34	.9743
15	564	RICHARDTON	31	.9272
15	568	ROSS	261	1.0624
15	572	RUTHVILLE	262	1.1038
15	583	SENTINEL BUTTE	32	.9065
15	588	SOUTH HEART	31	.9272
15	590	SPRINGBROOK	264	1.1145
15	591	STANLEY	261	1.0701
15	605	SURREY	262	1.1038
15	611	TAYLOR	31	.9272
15	616	TIOGA	261	1.0624
15	619	TURTLE LAKE	262	1.0883

MONTANA-DAKOTA UTILITIES CO.  
Therm Billing Factor  
JUNE 2009

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	620	TRENTON	24	1.1225
15	624	UNDERWOOD	262	1.0883
15	632	WATFORD CITY	25	1.0673
15	636	WHEELLOCK	264	1.1065
15	637	WHITE EARTH	261	1.0701
15	642	WILLISTON	24	1.1225
15	646	WASHBURN	262	1.0961
15	664	RIVERDALE	262	1.0883
15	691	FAIRVIEW	24	1.1225
15	712	MINOT AFB	262	1.1038
15	743	BAKER FIELD	35	.8935

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

# GQ Source Daily Summary

## May 2009

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

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	NZ	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7292	1171.6	1192.4	1191.5	1.062	4.126	68.986	21.936	3.538	0.119	0.214	0.011	0.009	0.001	0.000	0.000	0.000	0.000	1396.36	1396.36
2	0.7291	1171.5	1192.3	1191.5	1.063	4.123	69.000	21.924	3.538	0.118	0.212	0.011	0.009	0.001	0.000	0.000	0.000	0.000	1396.31	1396.31
3	0.7281	1169.4	1190.1	1189.1	1.056	4.169	69.340	21.411	3.665	0.121	0.218	0.011	0.009	0.001	0.000	0.000	0.000	0.000	1394.68	1394.68
4	0.7310	1174.4	1195.2	1194.3	1.054	4.134	68.932	21.686	3.820	0.126	0.226	0.011	0.009	0.001	0.000	0.000	0.000	0.000	1397.95	1397.95
5	0.7313	1175.0	1195.8	1194.7	1.058	4.127	68.857	21.787	3.787	0.129	0.232	0.012	0.010	0.001	0.000	0.000	0.000	0.000	1398.28	1398.28
6	0.7306	1173.7	1194.4	1193.5	1.060	4.140	68.947	21.735	3.733	0.129	0.234	0.012	0.009	0.001	0.000	0.000	0.000	0.000	1397.36	1397.36
7	0.7272	1167.0	1187.7	1186.8	1.056	4.225	69.643	20.957	3.723	0.133	0.241	0.012	0.010	0.001	0.000	0.000	0.000	0.000	1392.72	1392.72
8	0.7312	1175.0	1195.8	1194.9	1.068	4.099	68.759	22.051	3.631	0.131	0.237	0.012	0.010	0.001	0.000	0.000	0.000	0.000	1398.45	1398.45
9	0.7315	1175.5	1196.3	1195.4	1.070	4.090	68.636	22.262	3.537	0.135	0.246	0.013	0.010	0.001	0.000	0.000	0.000	0.000	1398.81	1398.81
10	0.7313	1165.1	1185.7	1194.7	1.061	4.131	68.926	21.678	3.793	0.137	0.248	0.013	0.011	0.001	0.000	0.000	0.000	0.000	1386.54	1386.54
11	0.7339	1179.4	1200.3	1199.7	1.060	4.100	68.560	21.900	3.972	0.137	0.247	0.013	0.011	0.001	0.000	0.000	0.000	0.000	1401.03	1401.03
12	0.7342	1180.1	1201.0	1200.6	1.071	4.062	68.354	22.324	3.767	0.140	0.255	0.014	0.011	0.001	0.000	0.000	0.000	0.000	1401.69	1401.69
13	0.7338	1206.3	1227.6	1227.3	0.432	3.393	68.819	22.498	4.232	0.196	0.377	0.024	0.023	0.005	0.000	0.000	0.000	0.000	1433.15	1433.15
14	0.7313	1186.1	1207.1	1206.2	0.819	3.808	68.833	22.255	3.873	0.135	0.250	0.014	0.012	0.002	0.000	0.000	0.000	0.000	1411.68	1411.68
15	0.7357	1182.5	1203.5	1202.7	1.067	4.065	68.219	22.273	3.960	0.139	0.253	0.013	0.011	0.001	0.000	0.000	0.000	0.000	1403.08	1403.08
16	0.7364	1183.7	1204.6	1203.7	1.066	4.066	68.148	22.257	4.052	0.137	0.250	0.013	0.011	0.001	0.000	0.000	0.000	0.000	1403.74	1403.74
17	0.7366	1183.7	1204.7	1203.5	1.077	4.059	68.182	22.153	4.133	0.132	0.239	0.013	0.011	0.001	0.000	0.000	0.000	0.000	1403.64	1403.64
18	0.7337	1178.5	1199.4	1198.2	1.057	4.132	68.722	21.592	4.090	0.136	0.246	0.013	0.011	0.001	0.000	0.000	0.000	0.000	1400.23	1400.23
19	0.7366	1184.3	1205.2	1203.7	1.065	4.051	68.128	22.259	4.101	0.132	0.241	0.013	0.010	0.001	0.000	0.000	0.000	0.000	1404.25	1404.25
20	0.7376	1185.8	1206.8	1205.5	1.066	4.044	68.076	22.224	4.150	0.143	0.267	0.015	0.013	0.002	0.000	0.000	0.000	0.000	1405.15	1405.15
21	0.7368	1184.7	1205.7	1204.4	1.066	4.037	68.051	22.388	4.064	0.131	0.239	0.013	0.010	0.001	0.000	0.000	0.000	0.000	1404.63	1404.63
22	0.7354	1182.2	1203.1	1202.0	1.064	4.065	68.234	22.279	3.963	0.131	0.239	0.013	0.010	0.001	0.000	0.000	0.000	0.000	1402.93	1402.93
23	0.7345	1180.5	1201.4	1200.2	1.061	4.088	68.359	22.159	3.960	0.124	0.226	0.012	0.010	0.001	0.000	0.000	0.000	0.000	1401.80	1401.80
24	0.7314	1175.3	1196.1	1194.9	1.065	4.105	68.622	22.248	3.995	0.122	0.222	0.011	0.009	0.001	0.000	0.000	0.000	0.000	1398.64	1398.64
25	0.7307	1174.4	1195.2	1194.2	1.072	4.087	68.620	22.412	3.438	0.124	0.225	0.012	0.010	0.001	0.000	0.000	0.000	0.000	1399.24	1399.24
26	0.7317	1176.1	1196.9	1195.7	1.069	4.083	68.537	22.385	3.552	0.125	0.227	0.012	0.010	0.001	0.000	0.000	0.000	0.000	1400.02	1400.02
27	0.7326	1177.4	1198.3	1198.5	1.073	4.070	68.354	22.391	3.745	0.123	0.222	0.012	0.010	0.001	0.000	0.000	0.000	0.000	1401.26	1401.26
28	0.7340	1179.7	1200.6	1199.3	1.065	4.087	68.471	22.046	3.947	0.128	0.233	0.012	0.010	0.001	0.000	0.000	0.000	0.000	1401.08	1401.08
29	0.7342	1179.6	1200.5	1199.2	1.064	4.104	68.518	21.920	3.996	0.132	0.242	0.013	0.011	0.001	0.000	0.000	0.000	0.000	1401.31	1401.31
30	0.7342	1179.8	1200.7	1199.3	1.064	4.092	68.512	21.941	3.994	0.132	0.240	0.013	0.011	0.001	0.000	0.000	0.000	0.000	1401.31	1401.31
31	0.7340	1179.7	1200.6	1199.2	1.065	4.079	68.505	22.013	3.944	0.131	0.239	0.013	0.011	0.001	0.000	0.000	0.000	0.000	1401.36	1401.36
Avg	0.7329	1179.0	1199.5	1198.8	1.036	4.066	68.608	22.043	3.848	0.133	0.242	0.013	0.011	0.001	0.000	0.000	0.000	0.000	1401.15	1401.15

*Zone 211*

# GQ Source Daily Summary

May 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	0.6671	1090.7	1110.0		0.212	4.527	77.958	15.955	1.255	0.031	0.051	0.004	0.003	0.006						1359.07
2	0.6794	1110.6	1130.3		0.346	4.266	76.211	17.283	1.745	0.049	0.085	0.006	0.005	0.005						1371.30
3	0.6815	1112.9	1132.6		0.395	4.254	75.923	17.453	1.813	0.052	0.090	0.009	0.005	0.006						1371.92
4	0.6745	1103.4	1122.9		0.283	4.339	76.915	16.768	1.572	0.041	0.069	0.004	0.004	0.005						1367.33
5	0.6915	1127.5	1147.5		0.520	4.101	74.680	18.141	2.328	0.077	0.136	0.007	0.005	0.004						1379.97
6	0.6770	1109.7	1129.4		0.296	4.169	76.719	16.898	1.747	0.054	0.100	0.005	0.004	0.007						1372.60
7	0.6868	1119.5	1139.3		0.422	4.302	75.140	17.939	1.991	0.063	0.119	0.009	0.009	0.005						1374.77
8	0.6852	1117.1	1136.9		0.437	4.273	75.344	17.846	1.930	0.057	0.099	0.006	0.005	0.004						1373.48
9	0.6827	1115.2	1134.9		0.394	4.224	75.657	17.766	1.808	0.051	0.087	0.005	0.004	0.004						1373.57
10	0.6827	1029.8	1134.9		0.168	4.810	86.261	6.605	2.053	0.026	0.069	0.001	0.004	0.002						1320.39
11	0.6827	1093.5	1134.9		0.259	4.362	78.714	14.561	1.911	0.052	0.115	0.008	0.010	0.006						1361.65
12	0.6808	1114.2	1133.9		0.300	4.252	76.145	17.211	1.885	0.062	0.120	0.009	0.010	0.007						1374.21
13	0.6809	1110.6	1130.3		0.355	4.392	75.996	17.272	1.821	0.053	0.095	0.006	0.006	0.004						1369.79
14	0.6838	1116.1	1135.9		0.384	4.287	75.528	17.756	1.861	0.059	0.106	0.007	0.007	0.005						1373.62
15	0.6853	1118.8	1138.6		0.412	4.219	75.325	17.925	1.947	0.058	0.100	0.006	0.005	0.004						1375.44
16	0.6888	1124.5	1144.4		0.439	4.163	74.826	18.278	2.111	0.061	0.106	0.006	0.005	0.005						1378.87
17	0.6913	1124.1	1144.0		0.450	4.402	74.492	18.183	2.268	0.070	0.120	0.007	0.006	0.002						1375.92
18	0.6868	1120.9	1140.8		0.410	4.232	75.211	17.842	2.125	0.061	0.104	0.006	0.005	0.004						1376.55
19	0.6933	1129.8	1149.9		0.546	4.088	74.386	18.368	2.394	0.074	0.128	0.007	0.006	0.003						1381.00
20	0.6955	1136.5	1156.6		0.589	3.830	74.095	18.790	2.478	0.073	0.129	0.007	0.005	0.004						1386.84
21	0.6895	1129.8	1149.8		0.482	3.829	74.979	18.253	2.256	0.066	0.117	0.007	0.006	0.007						1384.80
22	0.6838	1119.2	1139.0		0.387	4.089	75.599	17.829	1.938	0.054	0.091	0.005	0.004	0.005						1377.47
23	0.6847	1119.9	1139.8		0.364	4.166	75.578	17.621	2.086	0.062	0.106	0.006	0.005	0.006						1377.43
24	0.6720	1100.9	1120.4		0.217	4.353	77.274	16.545	1.499	0.037	0.061	0.004	0.004	0.006						1366.84
25	0.6717	1102.3	1121.8		0.188	4.285	77.270	16.683	1.467	0.035	0.056	0.004	0.004	0.007						1368.85
26	0.6682	1096.3	1115.7		0.200	4.306	77.843	16.219	1.341	0.030	0.049	0.003	0.002	0.007						1364.93
27	0.6663	1093.6	1112.9		0.187	4.317	78.154	15.957	1.300	0.027	0.044	0.003	0.003	0.007						1363.43
28	0.6709	1105.0	1124.6		0.194	4.043	77.347	16.972	1.343	0.032	0.053	0.004	0.003	0.009						1372.96
29	0.6660	1096.2	1115.6		0.165	4.169	78.047	16.389	1.161	0.023	0.035	0.002	0.002	0.009						1366.95
30	0.6697	1102.2	1121.7		0.136	4.191	77.304	17.104	1.186	0.024	0.040	0.002	0.002	0.011						1370.68
31	0.6713	1106.2	1125.8		0.147	4.083	77.171	17.172	1.346	0.025	0.040	0.002	0.002	0.012						1373.98
AVG	0.6804	1110.0	1132.7		0.331	4.236	76.522	16.952	1.805	0.050	0.088	0.005	0.005	0.006						1371.17

*Zone 261*

# GQ Source Daily Summary

May 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	0.6944	1106.7	1126.3	1125.9	0.266	6.045	73.106	18.395	2.010	0.062	0.105	0.002	0.002	0.009	0.000	0.000	0.000	0.000	1351.52	
2	0.6955	1111.0	1130.7	1130.4	0.355	5.744	73.074	18.580	2.064	0.065	0.109	0.001	0.001	0.007	0.000	0.000	0.000	0.000	1355.79	
3	0.7017	1120.0	1139.8	1139.4	0.428	5.667	72.251	19.090	2.343	0.077	0.131	0.003	0.001	0.008	0.000	0.000	0.000	0.000	1360.71	
4	0.7018	1122.0	1141.8	1141.4	0.474	5.487	72.356	19.071	2.387	0.079	0.134	0.003	0.001	0.008	0.000	0.000	0.000	0.000	1362.98	
5	0.6972	1115.5	1135.3	1134.7	0.412	5.541	73.116	18.414	2.305	0.075	0.126	0.003	0.001	0.008	0.000	0.000	0.000	0.000	1359.63	
6	0.7007	1119.8	1139.7	1139.0	0.467	5.519	72.763	18.469	2.537	0.087	0.145	0.004	0.002	0.007	0.000	0.000	0.000	0.000	1361.48	
7	0.6935	1113.9	1133.6	1133.1	0.348	5.385	73.878	17.869	2.288	0.081	0.136	0.004	0.002	0.010	0.000	0.000	0.000	0.000	1361.28	
8	0.7028	1124.7	1144.6	1144.3	0.481	5.398	72.499	18.747	2.602	0.091	0.161	0.008	0.006	0.006	0.000	0.000	0.000	0.000	1365.35	
9	0.7032	1123.9	1143.8	1143.5	0.498	5.460	72.218	19.103	2.493	0.081	0.135	0.004	0.001	0.007	0.000	0.000	0.000	0.000	1363.98	
10	0.7040	1124.2	1144.1	1143.8	0.475	5.556	72.021	19.222	2.489	0.083	0.141	0.004	0.002	0.007	0.000	0.000	0.000	0.000	1363.53	
11	0.7036	1124.1	1144.0	1143.5	0.461	5.537	72.069	19.241	2.457	0.082	0.140	0.004	0.002	0.007	0.000	0.000	0.000	0.000	1363.94	
12	0.7057	1127.0	1147.0	1146.4	0.440	5.595	71.892	19.159	2.614	0.097	0.181	0.008	0.008	0.006	0.000	0.000	0.000	0.000	1365.32	
13	0.7016	1121.9	1141.8	1141.5	0.402	5.573	72.637	18.529	2.578	0.091	0.167	0.008	0.008	0.007	0.000	0.000	0.000	0.000	1363.17	
14	0.7017	1118.0	1137.8	1137.4	0.451	5.749	72.395	18.722	2.456	0.080	0.135	0.004	0.002	0.006	0.000	0.000	0.000	0.000	1358.31	
15	0.7046	1125.3	1145.2	1144.9	0.465	5.563	71.998	19.157	2.559	0.089	0.153	0.006	0.004	0.006	0.000	0.000	0.000	0.000	1364.25	
16	0.7032	1122.6	1142.5	1142.1	0.475	5.580	72.041	19.293	2.392	0.078	0.130	0.003	0.001	0.007	0.000	0.000	0.000	0.000	1362.41	
17	0.7072	1127.4	1147.4	1146.9	0.511	5.599	71.559	19.458	2.625	0.087	0.146	0.005	0.002	0.007	0.000	0.000	0.000	0.000	1364.44	
18	0.7116	1133.4	1153.5	1153.1	0.518	5.638	70.901	19.852	2.818	0.096	0.163	0.006	0.003	0.005	0.000	0.000	0.000	0.000	1367.43	
19	0.7104	1129.5	1149.5	1148.4	0.491	5.778	71.120	19.635	2.719	0.091	0.154	0.005	0.003	0.006	0.000	0.000	0.000	0.000	1363.82	
20	0.7136	1134.4	1154.5	1154.1	0.571	5.690	70.645	19.888	2.926	0.099	0.167	0.005	0.003	0.006	0.000	0.000	0.000	0.000	1366.65	
21	0.7165	1139.5	1159.7	1159.2	0.620	5.574	70.526	19.720	3.241	0.111	0.190	0.007	0.004	0.008	0.000	0.000	0.000	0.000	1369.99	
22	0.7146	1139.3	1159.5	1158.9	0.614	5.420	70.702	19.907	3.061	0.103	0.176	0.006	0.003	0.008	0.000	0.000	0.000	0.000	1371.56	
23	0.7115	1132.6	1152.7	1152.1	0.500	5.712	71.008	19.589	2.900	0.101	0.174	0.006	0.004	0.008	0.000	0.000	0.000	0.000	1366.46	
24	0.7121	1132.4	1152.4	1151.9	0.495	5.786	70.668	20.029	2.767	0.090	0.153	0.004	0.002	0.007	0.000	0.000	0.000	0.000	1362.22	
25	0.7110	1128.6	1148.6	1148.2	0.440	5.990	70.935	19.514	2.841	0.098	0.167	0.006	0.003	0.007	0.000	0.000	0.000	0.000	1365.67	
26	0.7046	1121.4	1141.3	1140.7	0.364	5.955	71.635	19.397	2.420	0.081	0.135	0.003	0.001	0.008	0.000	0.000	0.000	0.000	1359.58	
27	0.7051	1121.2	1141.1	1140.4	0.375	5.988	71.589	19.377	2.430	0.085	0.143	0.004	0.001	0.008	0.000	0.000	0.000	0.000	1358.95	
28	0.7041	1117.9	1137.0	1137.0	0.379	6.090	71.793	19.054	2.441	0.085	0.145	0.003	0.001	0.008	0.000	0.000	0.000	0.000	1355.91	
29	0.7059	1121.6	1141.5	1140.7	0.368	6.047	71.747	18.906	2.622	0.103	0.185	0.008	0.006	0.007	0.000	0.000	0.000	0.000	1358.66	
30	0.7131	1130.3	1150.3	1149.4	0.401	6.146	70.724	19.429	2.935	0.120	0.220	0.010	0.008	0.008	0.000	0.000	0.000	0.000	1362.19	
31	0.7053	1119.0	1138.8	1137.9	0.365	6.158	71.797	18.776	2.613	0.099	0.173	0.006	0.003	0.010	0.000	0.000	0.000	0.000	1356.05	
Avg	0.7052	1124.0	1144.1	1143.6	0.449	5.709	71.860	19.148	2.578	0.089	0.152	0.005	0.003	0.007	0.000	0.000	0.000	0.000	1362.36	

*Zone 262*

## Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	2501030	Specific Gravity:	0.6584
GQ Source Name:	LIGNITE PLANT	BTU Base:	Dry
Effective Date:	5/10/2009 9:00:00 AM	Dry Heat Value:	1121.69
Effective End Date:	1/18/2038 9:14:00 PM	Wet Heat Value:	1102.17
Pressure Base:	14.730	As Deliv. Heat Value:	1121.69
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	79.318		
C2	Ethane	16.461	0.000	4.726
C3	Propane	0.920	0.253	0.281
IC4	Iso-Butane	0.001	0.000	0.000
NC4	N-Butane	0.001	0.000	0.000
IC5	Iso-Pentane	0.001	0.000	0.000
NC5	N-Pentane	0.001	0.001	0.000
C6+	Hexanes Plus	0.038	0.018	0.018
CO2	Carbon Dioxide	0.084		
N2	Nitrogen	3.166		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
<b>Totals</b>		99.993	0.272	5.026

**Sample Date:** 4/30/2009 12:00:00 AM  
**Sample Type:** Composite  
**Sample Tech:** sampler  
**Sample Remarks:** Zone 263  
**Analysis Remarks:**

# GQ Source Daily Summary

May 2009

**Number:** 043      **Pressure Base:** 14.730      **Contract Day:** 1  
**Name:** BISMARCK PLANT CLEVELAND PLANT      **Temperature Base:** 9      **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	0.6927	1103.8	1123.3	1122.4	0.274	6.042	73.486	18.033	1.975	0.061	0.105	0.005	0.005	0.012	0.000	0.000	0.000	0.000	1349.65	0.000
2	0.6973	1113.5	1133.2	1132.2	0.406	5.686	72.972	18.543	2.184	0.070	0.120	0.006	0.004	0.011	0.000	0.000	0.000	0.000	1356.97	0.000
3	0.7017	1120.3	1140.1	1139.1	0.466	5.586	72.376	18.984	2.358	0.076	0.132	0.006	0.005	0.012	0.000	0.000	0.000	0.000	1361.07	0.000
4	0.6988	1116.3	1136.1	1135.1	0.460	5.565	73.036	18.287	2.408	0.080	0.139	0.007	0.005	0.012	0.000	0.000	0.000	0.000	1359.03	0.000
5	0.6924	1109.9	1129.5	1128.5	0.393	5.460	74.021	17.705	2.214	0.069	0.116	0.005	0.004	0.013	0.000	0.000	0.000	0.000	1357.40	0.000
6	0.7059	1129.2	1149.2	1148.2	0.543	5.319	72.247	18.758	2.833	0.100	0.174	0.007	0.005	0.014	0.000	0.000	0.000	0.000	1367.76	0.000
7	0.6941	1113.2	1132.9	1132.0	0.382	5.430	73.929	17.658	2.330	0.084	0.155	0.009	0.008	0.015	0.000	0.000	0.000	0.000	1359.82	0.000
8	0.7027	1123.8	1143.7	1142.7	0.500	5.410	72.562	18.661	2.595	0.089	0.157	0.007	0.006	0.013	0.000	0.000	0.000	0.000	1364.36	0.000
9	0.7037	1124.3	1144.2	1143.2	0.507	5.472	72.167	19.120	2.496	0.080	0.138	0.006	0.005	0.011	0.000	0.000	0.000	0.000	1363.92	0.000
10	0.7028	1122.5	1142.4	1141.8	0.480	5.526	72.308	18.982	2.460	0.081	0.140	0.006	0.005	0.012	0.000	0.000	0.000	0.000	1362.77	0.000
11	0.7045	1124.5	1144.4	1143.5	0.459	5.603	72.106	18.987	2.554	0.092	0.170	0.009	0.008	0.012	0.000	0.000	0.000	0.000	1363.43	0.000
12	0.7027	1123.2	1143.1	1142.1	0.423	5.564	72.521	18.598	2.590	0.093	0.177	0.010	0.010	0.014	0.000	0.000	0.000	0.000	1363.66	0.000
13	0.7000	1118.9	1138.7	1137.7	0.411	5.595	73.031	18.071	2.605	0.090	0.166	0.009	0.009	0.014	0.000	0.000	0.000	0.000	1360.97	0.000
14	0.7015	1117.6	1137.4	1136.4	0.466	5.729	72.550	18.529	2.480	0.081	0.142	0.007	0.005	0.011	0.000	0.000	0.000	0.000	1357.99	0.000
15	0.7040	1124.0	1143.9	1142.9	0.476	5.558	72.205	18.931	2.560	0.088	0.155	0.008	0.006	0.013	0.000	0.000	0.000	0.000	1363.35	0.000
16	0.7034	1122.9	1142.8	1141.8	0.501	5.534	72.220	19.010	2.494	0.081	0.138	0.006	0.005	0.011	0.000	0.000	0.000	0.000	1362.58	0.000
17	0.7103	1130.9	1150.9	1149.9	0.529	5.650	71.213	19.526	2.802	0.094	0.163	0.007	0.006	0.011	0.000	0.000	0.000	0.000	1365.61	0.000
18	0.7104	1129.1	1149.1	1148.1	0.519	5.781	71.226	19.336	2.846	0.098	0.171	0.008	0.006	0.011	0.000	0.000	0.000	0.000	1363.39	0.000
19	0.7081	1127.0	1147.0	1145.9	0.512	5.702	71.539	19.253	2.727	0.089	0.154	0.007	0.005	0.010	0.000	0.000	0.000	0.000	1363.06	0.000
20	0.7145	1134.1	1154.1	1153.1	0.620	5.715	70.771	19.506	3.073	0.107	0.184	0.008	0.006	0.011	0.000	0.000	0.000	0.000	1365.37	0.000
21	0.7147	1138.0	1158.1	1157.1	0.631	5.477	70.864	19.550	3.166	0.104	0.182	0.008	0.006	0.013	0.000	0.000	0.000	0.000	1369.90	0.000
22	0.7120	1133.2	1153.2	1152.2	0.528	5.668	71.095	19.435	2.962	0.103	0.181	0.008	0.006	0.014	0.000	0.000	0.000	0.000	1366.75	0.000
23	0.7114	1130.4	1150.4	1149.4	0.502	5.824	70.959	19.610	2.826	0.093	0.162	0.007	0.005	0.012	0.000	0.000	0.000	0.000	1363.95	0.000
24	0.7120	1130.3	1150.3	1149.3	0.479	5.925	71.024	19.266	2.995	0.103	0.181	0.008	0.006	0.012	0.000	0.000	0.000	0.000	1363.18	0.000
25	0.7033	1117.6	1137.4	1136.4	0.380	6.032	72.017	18.869	2.462	0.080	0.136	0.006	0.005	0.013	0.000	0.000	0.000	0.000	1356.22	0.000
26	0.7045	1119.4	1139.2	1138.2	0.382	6.032	71.810	19.055	2.466	0.085	0.146	0.006	0.005	0.012	0.000	0.000	0.000	0.000	1357.26	0.000
27	0.7033	1117.0	1136.8	1135.8	0.387	6.059	72.117	18.673	2.484	0.091	0.163	0.007	0.006	0.013	0.000	0.000	0.000	0.000	1355.49	0.000
28	0.7039	1120.2	1140.0	1138.9	0.373	5.940	72.230	18.505	2.635	0.101	0.185	0.009	0.008	0.013	0.000	0.000	0.000	0.000	1358.78	0.000
29	0.7074	1123.3	1143.2	1142.2	0.389	6.053	71.733	18.696	2.769	0.113	0.184	0.010	0.009	0.014	0.000	0.000	0.000	0.000	1359.21	0.000
30	0.7050	1117.6	1137.4	1136.4	0.375	6.201	71.828	18.741	2.571	0.093	0.164	0.007	0.006	0.013	0.000	0.000	0.000	0.000	1354.57	0.000
31	0.7142	1130.2	1150.2	1149.2	0.386	6.274	70.366	19.755	2.893	0.105	0.191	0.008	0.007	0.014	0.000	0.000	0.000	0.000	1361.07	0.000
Avg	0.7046	1123.0	1142.6	1141.6	0.455	5.723	72.088	18.856	2.605	0.089	0.158	0.007	0.006	0.012	0.000	0.000	0.000	0.000	1361.22	0.000

*Zone 271*

# GQ Source Daily Summary

May 2009

**Number:** 063      **Pressure Base:** 14.730      **Contract Day:** 1  
**Name:** CLEVELAND PLANT 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	0.6962	1112.4	1132.1	1132.3	0.320	5.769	72.949	18.682	2.079	0.066	0.115	0.005	0.004	0.010	0.000	0.000	0.000	0.000	1356.85	
2	0.6932	1104.2	1123.8	1123.9	0.292	6.028	73.295	18.280	1.926	0.060	0.102	0.005	0.004	0.008	0.000	0.000	0.000	0.000	1349.79	
3	0.7010	1118.3	1138.1	1138.2	0.438	5.684	72.332	19.041	2.288	0.074	0.127	0.006	0.004	0.007	0.000	0.000	0.000	0.000	1359.36	
4	0.7018	1120.9	1140.7	1140.8	0.481	5.534	72.309	19.110	2.342	0.077	0.131	0.006	0.005	0.007	0.000	0.000	0.000	0.000	1361.69	
5	0.6967	1113.8	1133.6	1133.7	0.422	5.575	73.252	18.202	2.329	0.075	0.128	0.006	0.005	0.007	0.000	0.000	0.000	0.000	1358.07	
6	0.6997	1116.4	1136.2	1136.3	0.477	5.611	72.882	18.322	2.466	0.083	0.140	0.006	0.005	0.007	0.000	0.000	0.000	0.000	1358.31	
7	0.6988	1122.9	1142.8	1142.9	0.436	5.197	73.170	18.417	2.521	0.087	0.150	0.007	0.005	0.009	0.000	0.000	0.000	0.000	1367.00	
8	0.6997	1120.0	1139.8	1139.9	0.449	5.436	73.020	18.302	2.508	0.092	0.168	0.009	0.009	0.008	0.000	0.000	0.000	0.000	1362.64	
9	0.7037	1123.9	1143.8	1143.9	0.506	5.486	72.225	18.973	2.559	0.086	0.147	0.007	0.006	0.007	0.000	0.000	0.000	0.000	1363.53	
10	0.7044	1123.6	1143.5	1143.6	0.500	5.581	71.945	19.262	2.475	0.082	0.139	0.006	0.005	0.007	0.000	0.000	0.000	0.000	1362.52	
11	0.7029	1122.2	1142.1	1142.2	0.466	5.578	72.166	19.131	2.421	0.080	0.139	0.006	0.005	0.007	0.000	0.000	0.000	0.000	1362.30	
12	0.7057	1126.2	1146.1	1146.2	0.445	5.628	71.931	19.057	2.627	0.098	0.186	0.010	0.010	0.007	0.000	0.000	0.000	0.000	1364.37	
13	0.7027	1121.8	1141.7	1141.7	0.415	5.665	72.441	18.574	2.609	0.094	0.174	0.010	0.009	0.008	0.000	0.000	0.000	0.000	1361.88	
14	0.7011	1118.6	1138.4	1138.5	0.440	5.667	72.583	18.582	2.476	0.082	0.146	0.008	0.007	0.009	0.000	0.000	0.000	0.000	1359.61	
15	0.7042	1121.2	1141.0	1141.0	0.464	5.776	72.010	18.961	2.529	0.087	0.153	0.008	0.006	0.006	0.000	0.000	0.000	0.000	1359.74	
16	0.7042	1123.3	1143.2	1143.3	0.487	5.602	71.962	19.250	2.458	0.082	0.140	0.006	0.006	0.007	0.000	0.000	0.000	0.000	1362.33	
17	0.7067	1126.5	1146.4	1146.5	0.505	5.613	71.607	19.435	2.597	0.084	0.142	0.006	0.005	0.007	0.000	0.000	0.000	0.000	1367.41	
18	0.7126	1134.2	1154.3	1154.4	0.548	5.633	70.795	19.880	2.850	0.101	0.175	0.008	0.006	0.005	0.000	0.000	0.000	0.000	1362.11	
19	0.7106	1128.3	1148.2	1148.3	0.499	5.886	71.035	19.497	2.800	0.097	0.168	0.008	0.006	0.005	0.000	0.000	0.000	0.000	1365.31	
20	0.7134	1133.1	1153.2	1153.2	0.578	5.734	70.659	19.845	2.900	0.098	0.168	0.007	0.006	0.005	0.000	0.000	0.000	0.000	1367.82	
21	0.7155	1136.9	1157.0	1157.1	0.623	5.632	70.610	19.665	3.152	0.109	0.188	0.008	0.006	0.006	0.000	0.000	0.000	0.000	1371.26	
22	0.7138	1138.4	1158.5	1158.5	0.588	5.434	70.789	19.869	3.036	0.095	0.167	0.007	0.006	0.009	0.000	0.000	0.000	0.000	1365.38	
23	0.7116	1131.7	1151.8	1151.8	0.507	5.753	70.910	19.709	2.835	0.097	0.167	0.007	0.006	0.008	0.000	0.000	0.000	0.000	1365.38	
24	0.7145	1132.8	1152.9	1152.9	0.500	5.971	70.455	19.792	2.978	0.103	0.180	0.008	0.006	0.006	0.000	0.000	0.000	0.000	1360.19	
25	0.7092	1125.5	1145.4	1145.5	0.438	6.009	71.148	19.410	2.729	0.091	0.156	0.006	0.005	0.006	0.000	0.000	0.000	0.000	1357.38	
26	0.7048	1119.7	1139.6	1139.6	0.376	6.047	71.604	19.316	2.418	0.081	0.139	0.006	0.005	0.007	0.000	0.000	0.000	0.000	1355.84	
27	0.7036	1117.5	1137.3	1137.3	0.384	6.059	71.874	19.020	2.415	0.084	0.145	0.006	0.005	0.008	0.000	0.000	0.000	0.000	1357.01	
28	0.7046	1119.2	1139.0	1139.1	0.382	6.045	71.933	18.777	2.563	0.099	0.178	0.009	0.007	0.008	0.000	0.000	0.000	0.000	1361.22	
29	0.7081	1125.5	1145.5	1145.5	0.387	5.985	71.585	18.865	2.829	0.113	0.208	0.011	0.009	0.008	0.000	0.000	0.000	0.000	1357.11	
30	0.7042	1119.0	1138.9	1138.9	0.376	6.033	72.117	18.522	2.631	0.105	0.190	0.009	0.008	0.009	0.000	0.000	0.000	0.000	1357.02	
31	0.7074	1121.5	1141.4	1141.2	0.370	6.197	71.307	19.266	2.577	0.094	0.167	0.007	0.006	0.008	0.000	0.000	0.000	0.000	1357.02	
AVG	0.7050	1123.0	1143.1	1143.1	0.454	5.737	71.906	19.061	2.577	0.089	0.155	0.007	0.006	0.007	0.000	0.000	0.000	0.000	1361.36	

*Zone 272*

# GQ Source Daily Summary

May 2009

Number: 061

Pressure Base: 14.730

Contract Day: 1

Name: CLEVELAND PLANT GRAFTON

Temperature Base:

Contract Hour: 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	Heating Value As Del	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT	
1	0.6960	1112.5	1132.2	1132.5	0.315	5.755	72.963	18.698	2.071	0.066	0.114	0.005	0.004	0.011	0.000					1357.14	
2	0.6933	1104.5	1124.1	1134.3	0.293	6.022	73.072	18.299	1.933	0.060	0.102	0.005	0.004	0.0259	0.000					1350.02	
3	0.7010	1118.4	1138.2	1138.3	0.438	5.681	72.326	19.048	2.289	0.074	0.127	0.005	0.004	0.007	0.000					1359.38	
4	0.7020	1121.3	1141.1	1141.2	0.479	5.534	72.268	19.150	2.345	0.077	0.131	0.006	0.005	0.007	0.000					1361.96	
5	0.6968	1114.0	1133.7	1133.9	0.422	5.574	73.249	18.196	2.336	0.075	0.129	0.006	0.005	0.008	0.000					1358.14	
6	0.6998	1116.6	1136.4	1136.5	0.476	5.610	72.862	18.343	2.467	0.083	0.140	0.006	0.005	0.007	0.000					1358.49	
7	0.6987	1122.5	1142.3	1142.5	0.436	5.208	73.205	18.369	2.523	0.087	0.151	0.007	0.006	0.009	0.000					1366.67	
8	0.6997	1120.0	1139.8	1139.9	0.451	5.438	73.014	18.298	2.510	0.092	0.169	0.009	0.009	0.009	0.000					1362.60	
9	0.7036	1123.7	1143.6	1143.7	0.506	5.492	72.236	18.953	2.561	0.086	0.147	0.007	0.006	0.007	0.000					1363.40	
10	0.7044	1123.6	1143.5	1143.6	0.501	5.578	71.950	19.253	2.479	0.082	0.139	0.006	0.005	0.007	0.000					1362.52	
11	0.7031	1122.5	1142.3	1142.5	0.467	5.585	72.104	19.184	2.424	0.080	0.138	0.006	0.005	0.007	0.000					1362.31	
12	0.7056	1126.2	1146.1	1146.1	0.445	5.626	71.931	19.062	2.624	0.098	0.187	0.010	0.010	0.007	0.000					1364.38	
13	0.7029	1121.9	1141.8	1141.8	0.416	5.670	72.420	18.588	2.612	0.094	0.173	0.010	0.010	0.008	0.000					1361.88	
14	0.7012	1118.7	1138.6	1138.3	0.440	5.670	72.571	18.579	2.485	0.083	0.148	0.008	0.007	0.009	0.000					1359.66	
15	0.7041	1121.1	1141.0	1141.3	0.464	5.763	72.031	18.957	2.526	0.087	0.151	0.007	0.007	0.007	0.000					1359.74	
16	0.7039	1122.8	1142.7	1142.7	0.486	5.611	72.009	19.195	2.458	0.082	0.141	0.006	0.005	0.007	0.000					1361.95	
17	0.7066	1126.6	1146.6	1146.7	0.504	5.595	71.614	19.453	2.591	0.083	0.141	0.006	0.005	0.007	0.000					1364.03	
18	0.7107	1128.4	1148.4	1148.4	0.548	5.639	70.800	19.868	2.851	0.101	0.175	0.008	0.006	0.005	0.000					1367.27	
19	0.7134	1133.1	1153.1	1153.1	0.500	5.880	71.019	19.523	2.796	0.096	0.167	0.008	0.007	0.005	0.000					1362.25	
20	0.7153	1136.3	1156.5	1156.5	0.577	5.739	70.652	19.854	2.896	0.097	0.166	0.007	0.006	0.005	0.000					1365.27	
21	0.7135	1137.5	1157.7	1157.7	0.623	5.640	70.651	19.626	3.143	0.109	0.188	0.008	0.006	0.006	0.000					1370.52	
22	0.7115	1131.6	1151.7	1151.8	0.596	5.443	70.856	19.783	3.038	0.095	0.167	0.007	0.006	0.009	0.000					1365.37	
23	0.7143	1132.2	1152.3	1152.3	0.507	5.749	70.919	19.711	2.828	0.097	0.169	0.007	0.006	0.008	0.000					1370.52	
24	0.7091	1125.5	1145.4	1145.5	0.439	6.003	71.146	19.419	2.727	0.091	0.156	0.007	0.006	0.007	0.000					1363.41	
25	0.7047	1119.6	1139.4	1139.4	0.376	6.052	71.624	19.288	2.420	0.082	0.141	0.006	0.005	0.007	0.000					1360.20	
26	0.7035	1117.2	1137.0	1137.0	0.384	6.066	71.898	18.987	2.417	0.084	0.145	0.006	0.005	0.007	0.000					1355.57	
27	0.7046	1119.2	1139.0	1139.0	0.383	6.046	71.935	18.774	2.562	0.099	0.179	0.009	0.007	0.008	0.000					1356.98	
28	0.7082	1125.4	1145.3	1145.3	0.387	6.003	71.586	18.832	2.841	0.115	0.208	0.011	0.009	0.009	0.000					1360.96	
29	0.7042	1118.9	1138.7	1138.8	0.376	6.036	72.124	18.510	2.631	0.105	0.192	0.009	0.008	0.009	0.000					1357.00	
30	0.7074	1121.4	1141.2	1141.2	0.370	6.202	71.305	19.254	2.587	0.095	0.167	0.007	0.006	0.008	0.000					1356.85	
31	0.7050	1123.0	1143.0	1143.4	0.454	5.738	71.904	19.054	2.577	0.089	0.156	0.007	0.006	0.016	0.000					1361.29	

*Zone 273*

# GQ Source Daily Summary

May 2009

Number: 041      Pressure Base: 14.730      Contract Day: 1  
 Name: BISMARCK PLANT DICKINSON 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	0.6871	1098.3	1117.8	1117.5	0.296	5.820	74.531	17.295	1.875	0.058	0.099	0.005	0.005	0.012	0.000				1348.53	
2	0.6966	1112.3	1132.0	1131.6	0.401	5.692	73.097	18.443	2.161	0.068	0.117	0.005	0.005	0.011	0.000				1356.29	
3	0.7013	1119.9	1139.7	1139.3	0.464	5.581	72.438	18.935	2.351	0.076	0.132	0.006	0.005	0.012	0.000				1360.88	
4	0.6986	1115.9	1135.6	1135.3	0.462	5.571	73.073	18.242	2.411	0.079	0.137	0.006	0.005	0.012	0.000				1358.68	
5	0.6919	1109.0	1128.6	1128.2	0.387	5.472	74.096	17.651	2.191	0.068	0.114	0.005	0.004	0.013	0.000				1356.84	
6	0.7057	1128.3	1148.3	1147.9	0.550	5.339	72.303	18.668	2.840	0.100	0.174	0.007	0.006	0.013	0.000				1366.96	
7	0.6933	1112.5	1132.3	1131.8	0.374	5.407	74.052	17.602	2.299	0.082	0.152	0.009	0.008	0.016	0.000				1359.82	
8	0.7024	1123.4	1143.3	1142.9	0.498	5.404	72.616	18.622	2.589	0.088	0.155	0.008	0.007	0.013	0.000				1364.26	
9	0.7035	1123.6	1143.5	1143.1	0.507	5.489	72.226	19.038	2.497	0.081	0.139	0.006	0.005	0.011	0.000				1363.32	
10	0.7026	1122.4	1142.3	1141.9	0.480	5.522	72.325	18.980	2.449	0.081	0.140	0.006	0.005	0.012	0.000				1362.74	
11	0.7040	1123.7	1143.6	1143.2	0.460	5.606	72.172	18.948	2.529	0.090	0.166	0.009	0.008	0.012	0.000				1362.92	
12	0.7025	1122.6	1142.5	1142.1	0.422	5.582	72.586	18.496	2.608	0.094	0.178	0.010	0.010	0.015	0.000				1363.12	
13	0.6993	1117.8	1137.6	1137.3	0.407	5.593	73.153	17.984	2.576	0.089	0.165	0.009	0.009	0.014	0.000				1360.45	
14	0.7011	1116.8	1136.6	1136.2	0.464	5.742	72.616	18.458	2.475	0.081	0.141	0.007	0.006	0.011	0.000				1357.43	
15	0.7035	1123.1	1143.0	1142.7	0.475	5.564	72.290	18.859	2.544	0.087	0.153	0.008	0.007	0.013	0.000				1362.81	
16	0.7029	1122.3	1142.2	1141.8	0.500	5.524	72.312	18.942	2.482	0.080	0.137	0.006	0.005	0.011	0.000				1362.34	
17	0.7096	1130.1	1150.2	1149.7	0.527	5.637	71.307	19.483	2.769	0.092	0.161	0.007	0.006	0.011	0.000				1365.33	
18	0.7103	1129.3	1149.3	1148.7	0.520	5.765	71.241	19.338	2.842	0.098	0.172	0.008	0.007	0.009	0.000				1363.61	
19	0.7076	1126.4	1146.4	1145.8	0.509	5.697	71.615	19.206	2.709	0.088	0.152	0.007	0.006	0.011	0.000				1362.84	
20	0.7140	1133.3	1153.3	1152.9	0.619	5.713	70.870	19.418	3.067	0.106	0.182	0.008	0.006	0.011	0.000				1364.94	
21	0.7145	1137.7	1157.9	1157.5	0.632	5.466	70.910	19.526	3.153	0.104	0.182	0.008	0.006	0.011	0.000				1369.85	
22	0.7115	1132.6	1152.7	1152.2	0.530	5.653	71.162	19.415	2.934	0.101	0.177	0.008	0.007	0.014	0.000				1366.56	
23	0.7110	1130.0	1150.0	1149.5	0.502	5.811	71.038	19.543	2.826	0.093	0.162	0.007	0.006	0.012	0.000				1363.87	
24	0.7117	1129.7	1149.7	1149.2	0.479	5.924	71.095	19.197	2.994	0.103	0.182	0.008	0.007	0.012	0.000				1362.88	
25	0.7031	1117.2	1137.0	1136.5	0.381	6.031	72.071	18.808	2.468	0.080	0.136	0.006	0.005	0.013	0.000				1356.01	
26	0.7041	1119.4	1139.2	1138.7	0.381	5.997	71.851	19.087	2.434	0.083	0.143	0.006	0.005	0.013	0.000				1357.64	
27	0.7027	1116.2	1136.0	1135.4	0.387	6.052	72.206	18.617	2.466	0.089	0.158	0.007	0.006	0.013	0.000				1355.10	
28	0.7031	1119.4	1139.2	1138.6	0.390	5.918	72.365	18.423	2.612	0.100	0.183	0.009	0.008	0.013	0.000				1358.59	
29	0.7072	1123.0	1142.4	1142.4	0.370	6.047	71.774	18.667	2.768	0.111	0.207	0.011	0.009	0.014	0.000				1359.07	
30	0.7038	1115.7	1135.5	1134.9	0.375	6.202	72.064	18.515	2.561	0.093	0.164	0.007	0.006	0.014	0.000				1353.48	
31	0.7135	1129.1	1149.1	1148.5	0.383	6.286	70.476	19.655	2.876	0.105	0.191	0.008	0.007	0.014	0.000				1360.35	
Avg	0.7040	1122.0	1141.8	1141.3	0.455	5.713	72.197	18.773	2.590	0.089	0.156	0.007	0.006	0.012	0.000				1360.87	

*Zone 28*

# GQ Source Daily Summary

May 2009

**Number:** 271      **Pressure Base:** 14.730      **Contract Day:** 1  
**Name:** DICKINSON BORDER      **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	0.5877	976.7	994.0	986.5	1.034	2.932	93.070	2.256	0.081	0.004	0.004	0.000	0.000	0.003	0.000	0.000	0.000	0.000	1296.61	
2	0.5860	979.2	996.5	985.0	1.012	2.941	93.279	1.997	0.109	0.007	0.009	0.001	0.000	0.004	0.000	0.000	0.000	0.000	1301.77	
3	0.5881	985.4	1002.9	990.5	1.013	2.941	92.813	2.539	0.125	0.009	0.011	0.002	0.001	0.004	0.000	0.000	0.000	0.000	1307.72	
4	0.5907	988.1	1005.6	995.3	0.985	2.941	92.467	2.964	0.154	0.009	0.012	0.001	0.000	0.005	0.000	0.000	0.000	0.000	1308.31	
5	0.6019	997.7	1015.4	1011.9	1.054	2.941	91.170	4.226	0.388	0.021	0.031	0.004	0.002	0.006	0.000	0.000	0.000	0.000	1308.71	
6	0.5939	987.1	1004.5	997.5	1.054	2.941	92.190	3.220	0.185	0.006	0.009	0.000	0.000	0.004	0.000	0.000	0.000	0.000	1303.54	
7	0.5959	989.9	1007.4	1001.4	1.036	2.941	91.913	3.545	0.221	0.007	0.010	0.000	0.000	0.004	0.000	0.000	0.000	0.000	1305.06	
8	0.5958	989.8	1007.3	1001.2	1.038	2.941	91.917	3.536	0.219	0.007	0.010	0.000	0.000	0.003	0.000	0.000	0.000	0.000	1305.01	
9	0.6392	1051.5	1070.1	1086.6	0.747	2.941	85.693	10.735	0.925	0.030	0.049	0.002	0.001	0.005	0.000	0.000	0.000	0.000	1338.36	
10	0.5976	967.0	984.1	980.4	1.653	2.941	92.711	2.014	0.149	0.006	0.010	0.000	0.000	0.003	0.000	0.000	0.000	0.000	1272.98	
11	0.6213	1004.3	1022.0	1035.0	1.227	2.941	89.138	6.231	0.708	0.023	0.038	0.001	0.000	0.005	0.000	0.000	0.000	0.000	1296.49	
12	0.6501	1050.8	1069.4	1095.2	0.938	2.941	84.909	11.055	1.285	0.044	0.081	0.003	0.003	0.007	0.000	0.000	0.000	0.000	1326.30	
13	0.6006	984.3	1001.7	1005.0	1.352	2.718	92.223	3.361	0.345	0.011	0.022	0.001	0.001	0.002	0.000	0.000	0.000	0.000	1292.64	
14	0.5885	973.0	990.3	990.2	1.370	2.533	94.117	1.896	0.084	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1290.85	
15	0.5919	962.5	979.5	979.5	1.749	2.919	93.709	1.570	0.053	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1273.19	
16	0.5894	970.2	987.4	987.4	1.446	2.670	94.003	1.786	0.095	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1286.19	
17	0.5926	969.7	986.8	986.8	1.596	2.785	93.459	2.070	0.090	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1281.91	
18	0.5979	978.4	995.7	995.7	1.591	2.755	92.469	3.019	0.150	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1287.67	
19	0.5982	979.9	997.2	997.1	1.611	2.663	92.617	2.808	0.251	0.020	0.028	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1289.31	
20	0.5924	970.8	988.0	988.0	1.545	2.772	93.516	2.030	0.123	0.009	0.006	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1283.60	
21	0.5956	981.7	999.0	999.0	1.605	2.312	93.206	2.567	0.263	0.028	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1294.55	
22	0.5922	981.0	998.3	998.3	1.383	2.371	93.623	2.356	0.227	0.023	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1297.35	
23	0.5934	978.4	995.7	995.6	1.593	2.326	93.633	2.145	0.255	0.029	0.019	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1292.57	
24	0.5898	963.7	980.8	980.7	1.726	2.684	94.286	1.135	0.143	0.016	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1277.03	
25	0.5896	952.0	968.9	968.9	1.882	3.141	94.254	0.688	0.035	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1261.77	
26	0.5901	952.0	968.8	968.8	1.930	3.116	94.204	0.714	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1261.22	
27	0.5905	954.3	971.2	971.1	1.858	3.124	94.052	0.927	0.039	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1263.83	
28	0.5899	952.9	969.8	969.7	1.873	3.130	94.184	0.780	0.034	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1262.61	
29	0.5921	959.1	976.0	976.0	1.772	3.117	93.647	1.412	0.052	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1268.40	
30	0.5931	958.4	975.3	975.2	1.888	3.072	93.575	1.415	0.051	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1266.49	
31	0.5900	956.9	973.9	973.8	1.752	3.080	94.052	1.074	0.041	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1267.83	
AV9	0.5970	979.0	996.3	995.9	1.429	2.858	92.580	2.844	0.224	0.010	0.013	0.000	0.000	0.002	0.000	0.000	0.000	0.000	1289.37	

*Zone 31*

# GQ Source Daily Summary

May 2009

Number: 051      Pressure Base: 14.730      Contract Day: 1  
 Name: CABIN CREEK DICKINSON 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	0.5837	975.3	992.6	992.5	1.080	2.382	94.964	1.436	0.111	0.009	0.012	0.003	0.002	0.002	0.000					1299.24
2	0.5835	975.4	992.7	992.6	1.109	2.318	95.032	1.409	0.101	0.010	0.013	0.003	0.002	0.003	0.000					1299.55
3	0.5837	971.9	989.2	989.0	1.168	2.463	94.976	1.290	0.081	0.007	0.009	0.002	0.001	0.002	0.000					1294.65
4	0.5851	973.3	990.5	990.4	1.186	2.483	94.806	1.354	0.127	0.014	0.019	0.004	0.003	0.004	0.000					1294.92
5	0.5822	979.8	997.2	997.0	0.983	2.114	95.180	1.606	0.099	0.006	0.008	0.001	0.001	0.002	0.000					1306.93
6	0.5810	979.8	997.1	997.0	0.955	2.052	95.369	1.531	0.077	0.005	0.007	0.001	0.001	0.002	0.000					1308.15
7	0.6013	1014.8	1032.8	1032.4	0.756	2.132	91.119	5.787	0.187	0.007	0.009	0.001	0.001	0.002	0.000					1331.62
8	0.5999	989.3	1006.8	1006.5	1.173	2.928	91.628	4.124	0.129	0.006	0.008	0.002	0.001	0.002	0.000					1299.20
9	0.5868	947.3	964.1	964.0	1.815	3.278	94.771	1.106	0.018	0.003	0.005	0.002	0.001	0.001	0.000					1258.48
10	0.5852	949.4	966.2	966.1	1.693	3.182	94.993	1.105	0.016	0.002	0.004	0.001	0.001	0.001	0.000		0.000	0.000		1262.99
11	0.5855	949.0	965.8	965.6	1.701	3.216	94.948	1.107	0.017	0.003	0.004	0.001	0.001	0.002	0.000					1262.23
12	0.5854	967.4	984.5	984.4	1.375	2.579	94.852	1.076	0.087	0.009	0.013	0.003	0.002	0.003	0.000					1286.80
13	0.5851	968.1	985.3	985.1	1.369	2.515	94.916	1.087	0.085	0.008	0.012	0.003	0.002	0.003	0.000					1288.09
14	0.5872	951.0	967.8	967.7	1.872	3.005	94.795	0.288	0.028	0.003	0.006	0.001	0.001	0.002	0.000		0.000	0.000		1262.95
15	0.5858	961.0	978.0	977.9	1.547	2.752	94.856	0.766	0.060	0.005	0.008	0.002	0.001	0.002	0.000					1277.79
16	0.5868	960.2	977.2	977.1	1.633	2.763	94.756	0.757	0.068	0.007	0.010	0.003	0.002	0.003	0.000					1275.65
17	0.5930	965.2	982.3	982.2	1.808	2.769	93.933	1.190	0.221	0.025	0.035	0.008	0.005	0.006	0.000					1275.65
18	0.5906	964.3	981.4	981.2	1.719	2.734	94.283	1.022	0.173	0.020	0.029	0.007	0.005	0.007	0.000					1277.03
19	0.5860	958.0	975.0	974.8	1.603	2.861	94.881	0.565	0.065	0.009	0.009	0.003	0.002	0.003	0.000					1273.68
20	0.5907	971.6	988.8	988.6	1.708	2.316	94.384	1.279	0.239	0.033	0.025	0.007	0.004	0.005	0.000					1286.56
21	0.5885	971.7	988.9	988.8	1.490	2.431	94.565	1.233	0.214	0.029	0.024	0.006	0.003	0.005	0.000					1289.15
22	0.5892	971.2	988.4	988.2	1.599	2.366	94.559	1.178	0.226	0.032	0.025	0.007	0.004	0.005	0.000					1287.64
23	0.5892	972.6	989.8	989.7	1.579	2.313	94.550	1.247	0.235	0.034	0.025	0.007	0.004	0.005	0.000					1289.48
24	0.5879	949.9	966.7	966.7	1.885	3.105	94.713	0.226	0.047	0.006	0.009	0.002	0.002	0.003	0.000					1260.89
25	0.5876	947.5	964.3	964.2	1.919	3.176	94.752	0.110	0.025	0.003	0.007	0.002	0.002	0.003	0.000					1257.99
26	0.5886	946.5	963.3	963.2	2.018	3.182	94.644	0.112	0.025	0.003	0.008	0.002	0.002	0.004	0.000					1255.57
27	0.5870	947.9	964.7	964.7	1.869	3.173	94.814	0.105	0.023	0.003	0.007	0.002	0.002	0.003	0.000					1259.14
28	0.5873	947.6	964.4	964.3	1.883	3.200	94.769	0.108	0.024	0.003	0.007	0.002	0.002	0.003	0.000					1258.37
29	0.5885	946.5	963.2	963.1	2.026	3.165	94.666	0.105	0.022	0.003	0.006	0.002	0.002	0.003	0.000					1255.61
30	0.5874	947.7	964.5	964.3	1.927	3.137	94.797	0.102	0.021	0.003	0.006	0.002	0.002	0.003	0.000					1258.42
31	0.5854	949.8	966.6	966.4	1.726	3.126	95.012	0.101	0.020	0.003	0.006	0.002	0.001	0.003	0.000					1263.30
Avg	0.5876	964.0	980.6	980.5	1.553	2.751	94.558	1.016	0.092	0.010	0.012	0.003	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1279.26

Zone 32

# GQ Source Daily Summary

May 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	0.6729	1141.6	1161.8	1161.0	0.000	2.299	76.023	21.127	0.529	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.33	
2	0.6732	1142.2	1162.4	1161.4	0.000	2.290	75.982	21.161	0.549	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.76	
3	0.6726	1141.0	1161.2	1160.1	0.000	2.311	76.100	21.011	0.559	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.84	
4	0.6724	1140.8	1161.0	1160.1	0.000	2.306	76.126	21.007	0.542	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.79	
5	0.6735	1142.1	1162.3	1161.3	0.000	2.323	75.915	21.194	0.550	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.37	
6	0.6734	1142.5	1162.7	1161.8	0.000	2.290	75.936	21.207	0.549	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.95	
7	0.6746	1144.3	1164.6	1163.5	0.000	2.300	75.689	21.428	0.564	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.83	
8	0.6735	1142.9	1163.2	1162.1	0.000	2.279	75.899	21.261	0.542	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.31	
9	0.6739	1143.3	1163.6	1162.5	0.000	2.285	75.823	21.341	0.532	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.45	
10	0.6729	1141.9	1162.1	1161.0	0.000	2.287	76.023	21.130	0.541	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.65	
11	0.6684	1136.0	1156.1	1154.9	0.000	2.214	76.962	20.273	0.532	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.15	
12	0.6726	1141.6	1161.8	1160.9	0.000	2.276	76.067	21.112	0.526	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.60	
13	0.6726	1141.1	1161.3	1160.6	0.000	2.302	76.031	21.162	0.487	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.05	
14	0.6748	1143.9	1164.2	1163.0	0.067	2.238	75.858	21.209	0.576	0.015	0.017	0.007	0.007	0.007	0.000	0.000	0.000	0.000	1417.18	
15	0.6739	1144.0	1164.3	1163.4	0.000	2.248	75.799	21.421	0.513	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.28	
16	0.6734	1142.9	1163.1	1162.0	0.000	2.273	75.921	21.244	0.543	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.33	
17	0.6745	1144.7	1165.0	1163.8	0.000	2.264	75.721	21.433	0.563	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.46	
18	0.6734	1143.1	1163.3	1162.3	0.000	2.260	75.936	21.242	0.544	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.59	
19	0.6709	1139.2	1159.4	1158.3	0.000	2.259	76.435	20.746	0.542	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.44	
20	0.6731	1142.0	1162.2	1161.2	0.002	2.301	75.973	21.164	0.541	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.51	
21	0.6737	1142.9	1163.2	1161.9	0.002	2.293	75.880	21.251	0.555	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.13	
22	0.6740	1143.5	1163.7	1162.5	0.002	2.289	75.812	21.326	0.551	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.49	
23	0.6744	1144.2	1164.5	1163.3	0.000	2.285	75.747	21.372	0.576	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.95	
24	0.6735	1142.6	1162.8	1162.0	0.000	2.295	75.922	21.207	0.556	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.94	
25	0.6735	1143.0	1163.3	1162.2	0.000	2.274	75.908	21.249	0.549	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.40	
26	0.6722	1141.1	1161.3	1160.2	0.000	2.259	76.214	20.936	0.572	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.51	
27	0.6740	1143.4	1163.6	1162.4	0.000	2.291	75.858	21.251	0.581	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.42	
28	0.6737	1143.0	1163.3	1162.1	0.000	2.288	75.910	21.200	0.582	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.25	
29	0.6739	1143.2	1163.4	1162.3	0.000	2.302	75.923	21.130	0.607	0.012	0.020	0.002	0.002	0.003	0.000	0.000	0.000	0.000	1417.18	
30	0.6746	1144.2	1164.4	1163.2	0.000	2.303	75.714	21.389	0.575	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1417.72	
31	0.6753	1145.1	1165.3	1164.0	0.000	2.311	75.592	21.484	0.594	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1418.13	
Avg	0.6733	1142.0	1162.7	1161.7	0.002	2.284	75.957	21.184	0.552	0.009	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.97	

Zone 33

## Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	1202160	Specific Gravity:	0.7800
GQ Source Name:	BOWMAN BORDER	BTU Base:	Dry
Effective Date:	5/10/2009 9:00:00 AM	Dry Heat Value:	1147.87
Effective End Date:	6/1/2009 9:00:00 AM	Wet Heat Value:	1127.89
Pressure Base:	14.730	As Deliv. Heat Value:	1147.87
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	57.245		
C2	Ethane	27.627		7.367
C3	Propane	2.660		0.731
IC4	Iso-Butane	0.066		0.022
NC4	N-Butane	0.209		0.066
IC5	Iso-Pentane	0.009		0.003
NC5	N-Pentane	0.024		0.009
C6+	Hexanes Plus	0.006		0.002
CO2	Carbon Dioxide	2.045		
N2	Nitrogen	10.109		
O2	Oxygen			
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
<b>Totals</b>		100.000	0.000	8.200

Sample Date: 6/1/2009 9:00:00 AM  
 Sample Type: Composite  
 Sample Tech: sampler

Sample Remarks:

Analysis Remarks:

Zone 34

## Williston Basin Interstate Pipeline Co. GQ Source Analysis

<b>GQ Source Number:</b>	1201140	<b>Specific Gravity:</b>	0.5740
<b>GQ Source Name:</b>	EAGLE 8B ND	<b>BTU Base:</b>	Dry
<b>Effective Date:</b>	7/1/2008 9:00:00 AM	<b>Dry Heat Value:</b>	974.02
<b>Effective End Date:</b>	1/18/2038 9:14:07 PM	<b>Wet Heat Value:</b>	957.16
<b>Pressure Base:</b>	14.730	<b>As Deliv. Heat Value:</b>	974.02
<b>Viscosity:</b>			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	95.505		
C2	Ethane	0.281	0.076	0.075
C3	Propane	0.009	0.002	0.002
IC4	Iso-Butane	0.007	0.002	0.002
NC4	N-Butane	0.000	0.000	
IC5	Iso-Pentane	0.000	0.000	
NC5	N-Pentane	0.000	0.000	
C6+	Hexanes Plus	0.000	0.000	0.000
CO2	Carbon Dioxide	0.072		
N2	Nitrogen	4.126		
O2	Oxygen	0.000		
HE	Helium	0.000		
H2	Hydrogen	0.000		
H2S	Hydrogen Sulfide	0.000		
<b>Totals</b>		100.000	0.080	0.080

**Sample Date:** 6/13/2006 9:00:00 AM  
**Sample Type:** Spot  
**Sample Tech:** MG  
**Sample Remarks:** Zone 35  
**Analysis Remarks:**

<b>NORTH DAKOTA HEATING VALUE ZONES</b>		
<b>ZONES</b>	<b>MEASURING DEVICE</b>	<b>LOCATION</b>
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	Monthly Sampler	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	MAY 09	APR 09	MAR 09	FEB 09	JAN 09	DEC 08	NOV 08	OCT 08	SEPT 08	AUG 08	JULY 08	JUNE 08	ZONE
MT/ND	211	Sidney Area	1200	1170	1100	1019	1021	1085	1184	1195	1198	1194	1192	1195	21
ND	24	Williston Area	1180	1149	1106	1101	1158	1195	1171	1173	1175	1189	1189	1189	24
ND	25	Watford City Area	1130	1128	1128	1128	1130	1127	1126	1130	1129	1131	1132	1130	25
ND	261	Williston - Tioga - Minot Line	1133	1136	1110	1101	1102	1123	1148	1112	1130	1135	1148	1141	261
ND	262	Minot Area	1144	1143	1130	1114	1105	1129	1147	1116	1133	1141	1147	1144	262
ND	263	Tioga - Portal	1122	1098	1092	1099	1103	1139	1125	1129	1142	1145	1141	1141	263
ND	264	Williston - Ray	1180	1149	1106	1101	1158	1195	1171	1173	1175	1189	1189	1189	264
ND	271	Bismarck - Cleveland	1143	1118	1043	1058	1056	1081	1129	1068	1127	1140	1146	1142	271
ND	272	Cleveland - Mapleton	1104	1118	1043	1057	1056	1080	1129	1068	1127	1140	1146	1142	272
ND	273	Cleveland - Grafton	1143	1118	1043	1057	1056	1080	1129	1068	1127	1140	1146	1142	273
ND	28	Bismarck - Cabin Creek	1142	1061	1014	1021	1028	1020	1013	1038	1088	1116	1147	1143	28
ND	31	Dickinson Area	996	1007	1013	1019	1028	1018	1008	1037	1038	1044	1040	1032	31
ND/MT	32	Cabin Creek - Dickinson	981	997	1013	1019	1027	1018	1007	1037	1032	1036	1036	1027	32
ND	33	Killdeer	1163	1157	1156	1157	1156	1154	1160	1158	1158	1161	1158	1149	33
ND	34	Bowman Area	1148	1167	1172	1164	1168	1168	1160	1176	1176	1179	1170	1165	34
ND	35	Baker Field - North Dakota	974	974	974	974	974	974	974	974	974	974	974	976	35

<b>THERMAL ZONE VARIANCE DOCUMENTATION</b>		
<b>May 2009</b>		
<b>ZONE</b>	<b>BTU VARIANCE</b>	<b>REASON</b>
211	30	Receipt from Sidney and McKenzie Plants
24	31	Receipt from Tioga Area and Lignite Plant
263	24	Receipt from Lignite Plant
264	31	Receipt from Tioga Area and Lignite Plant
271	25	Receipt from Tioga and Minot Area
272	25	Receipt from Tioga and Minot Area
273	25	Receipt from Tioga and Minot Area
28	81	Receipt from Tioga and Minot Area