

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

March 31, 2009

RECEIVED

APR 02 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 – February 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 March 2009.
2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our supplier for the month of February 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 February.

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
 MAR 2009

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
12	314	APPLE VALLEY	271	1.0209
12	327	BISMARCK	28	.9852
12	343	CARRINGTON	273	1.0199
12	344	CLEVELAND	272	1.0127
12	364	CAVALIER	273	1.0414
12	365	DAWSON	271	1.0137
12	374	FT TOTTEN	273	1.0271
12	375	DEVILS LAKE	273	1.0271
12	379	BARLOW	273	1.0199
12	387	ELDRIDGE	272	1.0199
12	411	GLEN ULLIN	31	.9624
12	417	GRAFTON	273	1.0485
12	439	HANKINSON	600	1.0985
12	449	JAMESTOWN	272	1.0271
12	463	LANGDON	273	1.0199
12	475	LINTON	802	.9765
12	478	LINCOLN	28	.9852
12	494	MEDINA	271	1.0137
12	498	MANDAN	28	.9852
12	524	NEW SALEM	28	.9643
12	532	NEW ROCKFORD	273	1.0199
12	539	PARK RIVER	273	1.0414
12	574	SANBORN	272	1.0271
12	593	STEELE	271	1.0137
12	598	SHEYENNE	273	1.0271
12	610	TAPPEN	271	1.0137
12	625	VALLEY CITY	272	1.0342
12	629	WALHALLA	273	1.0414
12	647	WILTON	262	1.0522
12	717	SPIRITWOOD	272	1.0271
12	718	FAIRMOUNT	600	1.0963
12	732	MSR SITE	273	1.0199
12	733	PAR SITE	273	1.0199
15	303	ALEXANDER	25	1.0654
15	308	ARNEGARD	25	1.0654

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
MAR 2009

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	318	BEACH	32	.9417
15	319	BELFIELD	32	.9486
15	323	BERTHOLD	262	1.0522
15	330	BOWMAN	34	1.0677
15	337	BURLINGTON	262	1.0749
15	368	DES LACS	262	1.0597
15	369	DICKINSON	31	.9555
15	384	EPPING	264	1.0399
15	407	GLADSTONE	31	.9555
15	413	GOLVA	32	.9279
15	416	GARRISON	262	1.0597
15	429	HEBRON	31	.9624
15	459	KILLDEER	33	1.0928
15	469	LEFOR	31	.9555
15	474	LIGNITE	263	1.0455
15	500	MARMARTH	34	1.0757
15	505	MINOT	262	1.0749
15	510	MOTT	31	.9555
15	512	MAX	262	1.0522
15	522	NEW ENGLAND	31	.9486
15	540	PALERMO	262	1.0522
15	558	RAY	264	1.0399
15	561	REGENT	31	.9555
15	563	RHAME	34	1.0599
15	564	RICHARDTON	31	.9486
15	568	ROSS	261	1.0324
15	572	RUTHVILLE	262	1.0749
15	583	SENTINEL BUTTE	32	.9417
15	588	SOUTH HEART	31	.9486
15	590	SPRINGBROOK	264	1.0399
15	591	STANLEY	261	1.0399
15	605	SURREY	262	1.0749
15	611	TAYLOR	31	.9486
15	616	TIOGA	261	1.0324
15	619	TURTLE LAKE	262	1.0597

MONTANA-DAKOTA UTILITIES CO.
Therm Billing Factor
MAR 2009

Div Nbr	Off Code	City Name	Heat Zone Nbr	Therm Billing Factor
15	620	TRENTON	24	1.0474
15	624	UNDERWOOD	262	1.0597
15	632	WATFORD CITY	25	1.0654
15	636	WHEELLOCK	264	1.0324
15	637	WHITE EARTH	261	1.0399
15	642	WILLISTON	24	1.0474
15	646	WASHBURN	262	1.0673
15	664	RIVERDALE	262	1.0597
15	691	FAIRVIEW	24	1.0474
15	712	MINOT AFB	262	1.0749
15	743	BAKER FIELD	35	.8935

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

GQ Source Daily Summary

February 2009

Number: 251

Name: SIDNEY BORDER

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Cri/therm
1	0.6080	996.0	1013.7		0.109	4.890	88.832	5.807	0.350	0.006	0.005	0.000	0.000	0.000	0.000				1299.93	
2	0.6081	996.2	1013.8		0.109	4.891	88.815	5.821	0.354	0.006	0.004	0.000	0.000	0.000	0.000				1300.08	
3	0.6115	1002.7	1020.4		0.105	4.818	88.169	6.505	0.391	0.006	0.005	0.000	0.000	0.000	0.000				1304.84	
4	0.6017	983.7	1001.1		0.116	5.041	90.019	4.540	0.275	0.005	0.003	0.000	0.000	0.000	0.000				1290.48	
5	0.6140	1007.0	1024.8		0.103	4.800	87.681	6.976	0.427	0.007	0.005	0.000	0.000	0.000	0.000				1307.79	
6	0.6078	994.7	1012.4		0.111	4.954	88.858	5.709	0.358	0.006	0.004	0.000	0.000	0.000	0.000				1298.28	
7	0.6148	1007.6	1025.5		0.103	4.832	87.595	6.960	0.496	0.008	0.006	0.000	0.000	0.000	0.000				1307.83	
8	0.6065	992.0	1009.6		0.110	4.993	89.093	5.473	0.322	0.006	0.004	0.000	0.000	0.000	0.000				1296.27	
9	0.6119	1002.9	1020.7		0.105	4.848	88.066	6.580	0.391	0.007	0.004	0.000	0.000	0.000	0.000				1304.75	
10	0.6071	992.9	1010.5		0.110	4.992	88.984	5.571	0.332	0.006	0.004	0.000	0.000	0.000	0.000				1296.88	
11	0.6044	987.5	1005.0		0.114	5.071	89.498	4.990	0.319	0.005	0.004	0.000	0.000	0.000	0.000				1292.58	
12	0.6045	987.6	1005.1		0.113	5.074	89.475	5.011	0.318	0.005	0.004	0.000	0.000	0.000	0.000				1292.67	
13	0.6086	995.9	1013.5		0.108	4.961	88.693	5.878	0.351	0.006	0.004	0.000	0.000	0.000	0.000				1299.10	
14	0.6061	991.0	1008.5		0.111	5.018	89.208	5.294	0.359	0.006	0.004	0.000	0.000	0.000	0.000				1295.41	
15	0.6084	995.8	1013.4		0.108	4.951	88.751	5.802	0.377	0.006	0.004	0.000	0.000	0.000	0.000				1299.15	
16	0.6042	987.7	1005.2		0.112	5.035	89.545	4.987	0.311	0.006	0.004	0.000	0.000	0.000	0.000				1293.21	
17	0.6069	992.8	1010.3		0.110	4.990	89.019	5.533	0.339	0.006	0.004	0.000	0.000	0.000	0.000				1296.83	
18	0.6094	997.5	1015.2		0.107	4.941	88.563	5.987	0.391	0.007	0.005	0.000	0.000	0.000	0.000				1300.32	
19	0.6050	988.8	1006.3		0.113	5.044	89.411	5.088	0.334	0.006	0.004	0.000	0.000	0.000	0.000				1293.72	
20	0.6068	992.5	1010.1		0.111	4.992	89.056	5.481	0.350	0.006	0.004	0.000	0.000	0.000	0.000				1296.67	
21	0.6102	998.6	1016.3		0.108	4.939	88.455	6.060	0.426	0.007	0.005	0.000	0.000	0.000	0.000				1301.05	
22	0.6700	1115.5	1135.2		0.048	3.537	77.170	18.020	1.199	0.013	0.013	0.000	0.000	0.000	0.000				1386.31	
23	0.6136	1005.2	1023.0		0.104	4.871	87.791	6.754	0.462	0.008	0.009	0.000	0.000	0.000	0.000				1305.77	
24	0.6126	1003.2	1021.0		0.106	4.895	87.999	6.522	0.461	0.008	0.009	0.000	0.000	0.000	0.000				1304.30	
25	0.6184	1014.2	1032.1		0.100	4.776	86.891	7.700	0.517	0.008	0.008	0.000	0.000	0.000	0.000				1312.51	
26	0.5996	978.1	995.4		0.117	5.190	90.404	4.024	0.256	0.005	0.004	0.000	0.000	0.000	0.000				1285.35	
27	0.6216	1020.4	1038.5		0.095	4.706	86.255	8.389	0.541	0.007	0.006	0.000	0.000	0.000	0.000				1317.11	
28	0.6195	1016.1	1034.1		0.097	4.770	86.665	7.922	0.533	0.007	0.006	0.000	0.000	0.000	0.000				1313.66	
Avg	0.6115	1002.0	1019.3		0.106	4.886	88.177	6.407	0.412	0.007	0.005	0.000	0.000	0.000	0.000				1303.32	

Zone 211

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	0602330	Specific Gravity:	0.6659
GQ Source Name:	WILLISTON BORDER	BTU Base:	Dry
Effective Date:	2/10/2009 9:00:00 AM	Dry Heat Value:	1100.91
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1081.75
Pressure Base:	14.730	As Deliv. Heat Value:	1100.91
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	79.255		
C2	Ethane	13.642	0.000	3.638
C3	Propane	1.898	0.521	0.521
IC4	Iso-Butane	0.075	0.024	0.024
NC4	N-Butane	0.131	0.041	0.041
IC5	Iso-Pentane	0.011	0.004	0.004
NC5	N-Pentane	0.010	0.004	0.004
C6+	Hexanes Plus	0.000	0.000	0.000
CO2	Carbon Dioxide	0.525		
N2	Nitrogen	4.452		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		99.997	0.594	4.232

Sample Date: 1/31/2009 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks: *Zone 24-264*

Analysis Remarks:

GQ Source Daily Summary

February 2009

Number: 163

Name: NORTH TIOGA MINOT

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Critherm
1	0.6611	1087.1	1106.4		0.361	3.955	79.367	15.031	1.174	0.039	0.063	0.003	0.002	0.004					1360.71	
2	0.6573	1079.1	1098.3		0.364	4.075	80.116	14.183	1.146	0.040	0.066	0.003	0.002	0.004					1354.68	
3	0.6546	1075.3	1094.4		0.346	4.081	80.590	13.777	1.096	0.038	0.063	0.003	0.002	0.005					1352.68	
4	0.6574	1081.9	1101.0		0.324	3.983	80.021	14.444	1.120	0.037	0.062	0.003	0.002	0.004					1357.97	
5	0.6535	1076.4	1095.5		0.307	3.972	80.761	13.789	1.062	0.036	0.061	0.003	0.002	0.008					1355.18	
6	0.6638	1092.0	1111.3		0.344	3.937	79.037	15.210	1.321	0.050	0.087	0.005	0.003	0.006					1364.01	
7	0.6577	1079.9	1099.0		0.335	4.110	80.081	14.150	1.197	0.043	0.073	0.004	0.003	0.005					1355.23	
8	0.6627	1088.8	1108.0		0.338	4.038	79.093	15.177	1.230	0.042	0.071	0.004	0.003	0.005					1361.15	
9	0.6580	1081.7	1100.8		0.321	4.061	79.885	14.505	1.113	0.038	0.065	0.003	0.002	0.006					1357.03	
10	0.6588	1081.7	1100.8		0.330	4.120	79.760	14.536	1.136	0.040	0.068	0.003	0.002	0.005					1356.24	
11	0.6541	1074.8	1093.8		0.305	4.132	80.571	13.853	1.029	0.037	0.063	0.003	0.002	0.005					1352.49	
12	0.6534	1071.8	1090.8		0.323	4.224	80.790	13.453	1.088	0.041	0.071	0.004	0.003	0.003					1349.40	
13	0.6535	1071.4	1090.4		0.329	4.249	80.790	13.408	1.099	0.043	0.073	0.004	0.003	0.003					1348.78	
14	0.6548	1075.0	1094.0		0.327	4.153	80.563	13.717	1.116	0.042	0.072	0.004	0.003	0.004					1351.98	
15	0.6560	1076.6	1095.7		0.352	4.126	80.425	13.788	1.179	0.045	0.076	0.004	0.003	0.003					1352.81	
16	0.6562	1077.5	1096.6		0.345	4.109	80.340	13.915	1.162	0.044	0.075	0.004	0.003	0.003					1353.63	
17	0.6553	1076.4	1095.4		0.338	4.101	80.473	13.839	1.129	0.041	0.070	0.003	0.003	0.003					1353.20	
18	0.6543	1073.9	1092.9		0.340	4.151	80.688	13.566	1.133	0.041	0.071	0.004	0.003	0.003					1351.17	
19	0.6550	1076.3	1095.4		0.329	4.088	80.517	13.827	1.119	0.041	0.069	0.004	0.003	0.003					1353.46	
20	0.6550	1075.8	1094.9		0.314	3.649	72.726	12.366	1.029	0.426	0.125	0.003	0.003	0.003					348.01	
21	0.6567	1079.1	1098.2		0.340	4.064	80.297	13.965	1.195	0.047	0.081	0.004	0.003	0.003					1355.16	
22	0.6617	1087.0	1106.2		0.359	4.018	79.498	14.633	1.332	0.054	0.094	0.005	0.004	0.004					1359.96	
23	0.6549	1088.6	1107.9		0.171	3.573	79.878	15.686	0.617	0.023	0.041	0.002	0.001	0.007					1369.03	
24	0.6456	1078.6	1097.7		0.076	3.452	81.234	14.976	0.239	0.006	0.009	0.000	0.000	0.009					1366.23	
25	0.6952	1135.7	1155.8		0.592	3.844	74.035	18.965	2.357	0.069	0.118	0.006	0.006	0.010					1386.18	
26	0.6601	1088.1	1107.4		0.315	3.869	79.513	15.056	1.127	0.041	0.069	0.003	0.002	0.005					1363.00	
27	0.6579	1082.4	1101.6		0.345	3.967	80.011	14.393	1.155	0.044	0.075	0.004	0.003	0.004					1358.11	
28	0.6619	1091.6	1111.0		0.319	3.821	79.172	15.420	1.147	0.041	0.070	0.003	0.002	0.005					1365.54	
Avg	0.6581	1082.0	1101.5		0.328	3.997	79.651	14.415	1.137	0.055	0.072	0.003	0.003	0.003					1321.89	

Zone 261

GQ Source Daily Summary

February 2009

Number: 091

Name: MINOT

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Crit'herm
1	0.6733	1089.2	1108.5		0.391	4.933	77.275	15.632	1.608	0.055	0.096	0.001	0.000	0.008	0.000				1350.86	
2	0.6734	1087.5	1106.8		0.428	4.991	77.174	15.726	1.535	0.051	0.087	0.000	0.000	0.007	0.000				1348.67	
3	0.6712	1083.4	1102.6		0.408	5.061	77.697	15.071	1.606	0.055	0.093	0.000	0.000	0.009	0.000				1345.78	
4	0.6699	1080.5	1099.6		0.399	5.125	77.976	14.719	1.618	0.057	0.097	0.000	0.000	0.008	0.000				1343.52	
5	0.6738	1087.2	1106.5		0.383	5.106	77.236	15.428	1.678	0.058	0.100	0.000	0.000	0.010	0.000				1348.00	
6	0.6790	1096.1	1115.5		0.400	5.037	76.404	16.138	1.818	0.068	0.122	0.002	0.001	0.011	0.000				1353.63	
7	0.6806	1097.0	1116.4		0.428	5.080	76.152	16.293	1.830	0.071	0.130	0.004	0.002	0.009	0.000				1353.27	
8	0.6839	1102.9	1122.5		0.435	5.026	75.338	17.252	1.765	0.063	0.111	0.001	0.000	0.009	0.000				1357.26	
9	0.6828	1099.4	1118.9		0.411	5.176	75.452	17.065	1.721	0.061	0.105	0.000	0.000	0.008	0.000				1353.98	
10	0.6765	1093.7	1113.1		0.397	4.945	76.525	16.468	1.514	0.053	0.089	0.000	0.000	0.009	0.000				1353.33	
11	0.6762	1090.8	1110.2		0.391	5.100	76.535	16.320	1.513	0.049	0.084	0.000	0.000	0.008	0.000				1350.09	
12	0.6708	1086.2	1105.4		0.388	4.885	77.541	15.650	1.394	0.049	0.086	0.000	0.000	0.007	0.000				1349.68	
13	0.6691	1084.2	1103.4		0.381	4.855	77.941	15.245	1.428	0.052	0.090	0.000	0.000	0.006	0.000				1348.91	
14	0.6725	1087.3	1106.5		0.394	4.966	77.255	15.795	1.441	0.052	0.090	0.000	0.000	0.007	0.000				1349.36	
15	0.6739	1089.9	1109.2		0.414	4.906	77.085	15.914	1.533	0.053	0.090	0.000	0.000	0.006	0.000				1351.24	
16	0.6778	1094.0	1113.4		0.429	5.005	76.398	16.384	1.614	0.058	0.103	0.001	0.000	0.007	0.000				1352.34	
17	0.6694	1084.7	1103.9		0.398	4.825	77.969	15.174	1.480	0.054	0.093	0.000	0.000	0.007	0.000				1349.25	
18	0.6658	1088.2	1107.5		0.381	4.304	78.707	15.019	1.436	0.052	0.094	0.000	0.000	0.007	0.000				1357.21	
19	0.6744	1091.4	1110.7		0.400	4.884	77.142	15.752	1.646	0.060	0.108	0.001	0.000	0.007	0.000				1352.57	
20	0.6753	1090.0	1109.3		0.415	5.034	76.854	15.946	1.593	0.057	0.096	0.000	0.000	0.006	0.000				1349.91	
21	0.6794	1096.0	1115.4		0.429	5.031	76.033	16.759	1.587	0.057	0.099	0.000	0.000	0.006	0.000				1353.28	
22	0.6787	1097.2	1116.6		0.424	4.899	76.305	16.537	1.657	0.062	0.109	0.001	0.000	0.007	0.000				1355.40	
23	0.6921	1111.5	1131.1		0.478	5.210	74.090	17.912	2.074	0.080	0.144	0.003	0.002	0.007	0.000				1359.69	
24	0.6934	1112.1	1131.8		0.351	5.491	73.100	19.241	1.649	0.057	0.101	0.000	0.000	0.009	0.000				1359.16	
25	0.6900	1111.0	1130.7		0.361	5.218	73.733	18.977	1.565	0.050	0.086	0.000	0.000	0.009	0.000				1361.20	
26	0.6916	1113.0	1132.7		0.448	5.114	73.666	18.906	1.703	0.057	0.099	0.001	0.000	0.006	0.000				1362.06	
27	0.6869	1104.0	1123.6		0.450	5.218	74.691	17.706	1.759	0.061	0.106	0.000	0.000	0.008	0.000				1355.65	
28	0.6889	1105.6	1125.2		0.442	5.320	74.268	18.014	1.788	0.060	0.102	0.000	0.000	0.007	0.000				1355.68	
Avg	0.6782	1095.0	1114.2		0.409	5.027	76.305	16.466	1.627	0.058	0.100	0.001	0.000	0.008	0.000				1352.89	

Zone 262

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	2501030	Specific Gravity:	0.6436
GQ Source Name:	LIGNITE PLANT	BTU Base:	Dry
Effective Date:	2/10/2009 9:00:00 AM	Dry Heat Value:	1099.34
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1080.21
Pressure Base:	14.730	As Deliv. Heat Value:	1099.34
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	81.807		
C2	Ethane	14.635		3.902
C3	Propane	0.300	0.082	0.082
IC4	Iso-Butane	0.000	0.000	0.000
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	0.046	0.021	0.019
CO2	Carbon Dioxide	0.097		
N2	Nitrogen	3.103		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		99.989	0.104	4.004

Sample Date: 1/31/2009 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks: Zone 263
Analysis Remarks:

GQ Source Daily Summary

February 2009

Number: 043

Pressure Base: 14.730

Name: BISMARCK PLANT CLEVELAND PLANT

Temperature Base:

Contract Day: 1 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	Crit'herm
1	0.6381	1047.3	1065.8		0.633	3.795	84.551	9.714	1.101	0.075	0.091	0.014	0.009	0.017	0.000				1334.28	
2	0.6301	1034.9	1053.2		0.838	3.481	86.266	8.255	0.981	0.064	0.079	0.012	0.008	0.017	0.000				1326.90	
3	0.6247	1026.7	1044.8		0.877	3.421	87.227	7.460	0.863	0.055	0.067	0.010	0.007	0.013	0.000				1321.96	
4	0.6332	1037.2	1055.6		0.806	3.686	85.619	8.654	1.062	0.062	0.080	0.011	0.007	0.013	0.000				1326.53	
5	0.6378	1043.8	1062.3		0.733	3.830	84.673	9.453	1.127	0.066	0.085	0.011	0.007	0.014	0.000				1330.12	
6	0.6465	1055.0	1073.7		0.666	4.071	82.981	10.787	1.295	0.070	0.094	0.011	0.007	0.017	0.000				1335.27	
7	0.6537	1066.6	1085.5		0.689	4.006	81.735	11.912	1.432	0.075	0.114	0.012	0.008	0.017	0.000				1342.50	
8	0.6516	1060.9	1079.7		0.679	4.168	82.009	11.581	1.355	0.070	0.104	0.011	0.008	0.015	0.000				1337.53	
9	0.6472	1058.0	1076.7		0.737	3.846	82.863	11.131	1.228	0.068	0.092	0.011	0.007	0.015	0.000				1338.35	
10	0.6483	1057.4	1076.1		0.754	3.956	82.648	11.217	1.236	0.067	0.089	0.011	0.007	0.015	0.000				1336.51	
11	0.6475	1059.9	1078.7		0.725	3.770	82.722	11.441	1.157	0.065	0.085	0.011	0.007	0.016	0.000				1340.57	
12	0.6293	1036.3	1054.6		0.922	3.200	86.559	8.169	0.957	0.071	0.079	0.015	0.010	0.018	0.000				1329.46	
13	0.6281	1036.0	1054.3		0.838	3.233	86.702	8.095	0.931	0.072	0.084	0.016	0.010	0.018	0.000				1330.32	
14	0.6267	1033.2	1051.5		0.855	3.240	86.990	7.802	0.917	0.070	0.082	0.015	0.010	0.018	0.000				1328.30	
15	0.6311	1038.0	1056.4		0.861	3.358	86.102	8.527	0.959	0.069	0.083	0.014	0.009	0.017	0.000				1329.72	
16	0.6319	1038.7	1057.1		0.854	3.400	85.921	8.659	0.985	0.064	0.079	0.013	0.009	0.016	0.000				1329.80	
17	0.6376	1044.6	1063.1		0.825	3.626	84.777	9.512	1.077	0.064	0.085	0.012	0.008	0.014	0.000				1331.32	
18	0.6270	1032.3	1050.6		0.909	3.243	86.946	7.808	0.911	0.064	0.079	0.014	0.009	0.017	0.000				1326.78	
19	0.6264	1033.2	1051.5		0.923	3.115	87.075	7.800	0.907	0.063	0.079	0.013	0.009	0.016	0.000				1328.53	
20	0.6328	1038.3	1056.7		0.889	3.460	85.826	8.597	1.035	0.066	0.087	0.013	0.009	0.016	0.000				1328.31	
21	0.6303	1036.7	1055.0		0.859	3.366	86.289	8.311	0.981	0.069	0.083	0.015	0.010	0.018	0.000				1328.89	
22	0.6335	1039.5	1057.9		0.832	3.537	85.580	8.864	1.002	0.065	0.082	0.013	0.009	0.016	0.000				1329.11	
23	0.6135	1014.5	1032.4		0.956	2.994	89.653	5.449	0.756	0.070	0.075	0.017	0.011	0.019	0.000				1318.06	
24	0.6076	1006.6	1024.4		0.944	2.936	90.769	4.493	0.669	0.068	0.071	0.018	0.012	0.020	0.000				1314.19	
25	0.6183	1019.7	1037.7		0.822	3.325	88.555	6.284	0.828	0.067	0.078	0.016	0.010	0.016	0.000				1319.75	
26	0.6279	1031.9	1050.2		0.775	3.556	86.667	7.849	0.951	0.071	0.087	0.016	0.011	0.018	0.000				1325.32	
27	0.6305	1037.4	1055.7		0.735	3.532	86.087	8.474	0.979	0.068	0.083	0.015	0.010	0.016	0.000				1329.55	
28	0.6270	1031.3	1049.5		0.794	3.485	86.851	7.718	0.957	0.069	0.084	0.015	0.011	0.016	0.000				1325.43	
Avg	0.6328	1039.0	1057.5		0.812	3.523	85.737	8.715	1.023	0.067	0.084	0.013	0.009	0.016	0.000				1329.41	

Zone 271

GQ Source Daily Summary

February 2009

Number: 063

Name: CLEVELAND PLANT MAPLETON

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Crittherm	
1	0.6400	1050.0	1068.6		0.655	3.773	84.159	10.075	1.139	0.074	0.089	0.014	0.009	0.013	0.000				1335.75		
2	0.6341	1040.0	1058.4		0.773	3.650	85.384	8.958	1.052	0.066	0.083	0.013	0.008	0.013	0.000				1329.13		
3	0.6248	1026.4	1044.6		0.877	3.445	87.170	7.488	0.869	0.055	0.067	0.011	0.007	0.012	0.000				1321.49		
4	0.6305	1033.0	1051.3		0.819	3.667	86.045	8.318	0.991	0.058	0.074	0.010	0.007	0.009	0.000				1323.95		
5	0.6368	1041.5	1059.9		0.747	3.852	84.838	9.256	1.125	0.067	0.086	0.012	0.008	0.011	0.000				1328.21		
6	0.6454	1053.9	1072.5		0.684	3.996	83.153	10.721	1.255	0.069	0.091	0.011	0.008	0.011	0.000				1335.10		
7	0.6518	1061.5	1080.3		0.675	4.151	81.981	11.597	1.386	0.072	0.106	0.011	0.008	0.013	0.000				1338.07		
8	0.6497	1060.2	1079.5		0.682	4.184	81.976	11.579	1.368	0.072	0.108	0.012	0.008	0.012	0.000				1337.13		
9	0.6508	1061.0	1079.8		0.740	3.976	82.308	11.534	1.275	0.068	0.094	0.011	0.007	0.011	0.000				1338.53		
10	0.6453	1055.3	1074.0		0.746	3.816	83.079	11.010	1.141	0.066	0.084	0.011	0.007	0.011	0.000				1338.47		
11	0.6340	1042.6	1061.1		0.873	3.322	85.562	9.036	1.016	0.071	0.082	0.014	0.010	0.014	0.000				1336.89		
12	0.6302	1036.7	1055.0		0.848	3.369	86.239	8.389	0.965	0.070	0.080	0.015	0.010	0.014	0.000				1332.64		
13	0.6263	1033.5	1051.8		0.827	3.222	87.007	7.837	0.912	0.070	0.082	0.016	0.010	0.015	0.000				1328.99		
14	0.6296	1035.1	1053.4		0.873	3.365	86.356	8.285	0.934	0.068	0.080	0.014	0.010	0.015	0.000				1329.07		
15	0.6327	1039.4	1057.9		0.852	3.432	85.678	8.809	0.997	0.066	0.080	0.013	0.009	0.073	0.000				1327.68		
16	0.6353	1041.4	1059.8		0.817	3.607	85.147	9.230	1.028	0.062	0.080	0.011	0.008	0.010	0.000				1329.89		
17	0.6298	1034.2	1052.5		0.893	3.411	86.344	8.200	0.968	0.066	0.082	0.014	0.009	0.013	0.000				1329.71		
18	0.6263	1032.9	1051.2		0.910	3.135	87.040	7.842	0.901	0.061	0.077	0.013	0.009	0.013	0.000				1326.30		
19	0.6298	1034.8	1053.1		0.904	3.362	86.386	8.174	0.987	0.066	0.085	0.014	0.009	0.013	0.000				1328.28		
20	0.6310	1036.1	1054.4		0.854	3.469	86.119	8.351	1.017	0.069	0.083	0.014	0.010	0.013	0.000				1326.98		
21	0.6329	1038.3	1056.7		0.843	3.532	85.643	8.821	0.983	0.063	0.079	0.013	0.009	0.014	0.000				1327.42		
22	0.6209	1023.1	1041.2		0.913	3.219	88.116	6.713	0.853	0.068	0.078	0.015	0.010	0.014	0.000				1328.25		
23	0.6090	1008.1	1025.9		0.901	3.039	90.433	4.735	0.700	0.067	0.071	0.018	0.012	0.014	0.000				1321.41		
24	0.6127	1011.8	1029.7		0.866	3.229	89.578	5.392	0.749	0.062	0.070	0.015	0.010	0.027	0.000				1314.62		
25	0.6266	1030.0	1048.2		0.784	3.534	86.916	7.598	0.964	0.072	0.089	0.016	0.012	0.014	0.000				1315.46		
26	0.6298	1035.9	1054.2		0.735	3.550	86.153	8.428	0.948	0.066	0.081	0.015	0.010	0.014	0.000				1324.20		
27	0.6253	1028.8	1047.0		0.787	3.477	87.127	7.493	0.928	0.068	0.081	0.015	0.010	0.013	0.000				1328.43		
28	0.6330	1039.0	1057.2		0.807	3.563	85.644	8.771	1.026	0.067	0.083	0.013	0.009	0.017	0.000				1324.10		
Avg																				1328.79	

Zone 272

GQ Source Daily Summary

February 2009

Number: 061

Name: CLEVELAND PLANT GRAFTON

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Crit'herm
1	0.6400	1050.1	1068.7		0.656	3.766	84.161	10.077	1.139	0.074	0.090	0.014	0.009	0.013	0.000				1335.85	
2	0.6343	1040.3	1058.7		0.773	3.647	85.358	8.982	1.055	0.066	0.084	0.013	0.008	0.013	0.000				1329.31	
3	0.6249	1026.5	1044.7		0.878	3.440	87.177	7.478	0.873	0.056	0.068	0.011	0.007	0.012	0.000				1321.57	
4	0.6306	1033.2	1051.5		0.820	3.659	86.035	8.332	0.995	0.058	0.075	0.010	0.007	0.009	0.000				1324.17	
5	0.6370	1041.7	1060.2		0.748	3.850	84.829	9.259	1.131	0.067	0.086	0.012	0.008	0.011	0.000				1328.36	
6	0.6453	1053.8	1072.5		0.686	3.996	83.164	10.709	1.254	0.069	0.091	0.011	0.008	0.011	0.000				1335.04	
7	0.6519	1061.7	1080.5		0.676	4.143	81.967	11.612	1.392	0.072	0.106	0.011	0.008	0.013	0.000				1338.32	
8	0.6516	1060.6	1079.3		0.682	4.177	82.024	11.528	1.376	0.073	0.109	0.012	0.008	0.012	0.000				1337.12	
9	0.6498	1060.4	1079.2		0.717	3.970	82.299	11.540	1.282	0.068	0.094	0.011	0.007	0.011	0.000				1338.74	
10	0.6507	1060.8	1079.6		0.741	3.985	82.133	11.683	1.270	0.068	0.091	0.011	0.007	0.011	0.000				1338.43	
11	0.6454	1055.5	1074.2		0.747	3.812	83.093	11.024	1.144	0.066	0.084	0.011	0.007	0.011	0.000				1337.04	
12	0.6340	1042.8	1061.3		0.874	3.309	85.548	9.061	1.017	0.071	0.082	0.015	0.010	0.014	0.000				1332.89	
13	0.6303	1036.9	1055.3		0.849	3.360	86.199	8.408	0.967	0.070	0.080	0.015	0.010	0.046	0.000				1329.23	
14	0.6263	1033.6	1051.9		0.828	3.220	87.004	7.839	0.915	0.070	0.083	0.016	0.010	0.015	0.000				1329.15	
15	0.6294	1035.0	1053.3		0.873	3.357	86.380	8.271	0.932	0.068	0.080	0.014	0.010	0.015	0.000				1327.71	
16	0.6328	1039.7	1058.1		0.854	3.424	85.719	8.822	0.999	0.066	0.081	0.014	0.009	0.013	0.000				1330.08	
17	0.6354	1041.6	1060.1		0.818	3.600	85.129	9.250	1.031	0.062	0.081	0.011	0.008	0.010	0.000				1329.92	
18	0.6299	1034.5	1052.8		0.894	3.407	86.330	8.215	0.971	0.066	0.082	0.014	0.009	0.013	0.000				1326.47	
19	0.6263	1033.0	1051.3		0.911	3.131	87.033	7.846	0.905	0.061	0.077	0.013	0.009	0.013	0.000				1328.36	
20	0.6299	1035.1	1053.4		0.905	3.355	86.364	8.200	0.988	0.066	0.085	0.014	0.010	0.013	0.000				1327.21	
21	0.6310	1036.2	1054.5		0.857	3.462	86.120	8.348	1.022	0.069	0.084	0.014	0.010	0.014	0.000				1327.51	
22	0.6331	1038.6	1057.0		0.845	3.528	85.615	8.847	0.987	0.064	0.079	0.013	0.009	0.014	0.000				1328.44	
23	0.6208	1023.1	1041.2		0.915	3.215	88.127	6.702	0.854	0.069	0.078	0.016	0.010	0.014	0.000				1321.38	
24	0.6091	1008.2	1026.1		0.903	3.033	90.403	4.774	0.700	0.068	0.072	0.018	0.012	0.018	0.000				1314.71	
25	0.6132	1012.2	1030.1		0.869	3.225	89.515	5.467	0.749	0.063	0.071	0.016	0.010	0.014	0.000				1315.51	
26	0.6266	1030.1	1048.3		0.784	3.529	86.920	7.595	0.968	0.072	0.089	0.017	0.012	0.014	0.000				1324.32	
27	0.6298	1036.0	1054.3		0.737	3.545	86.151	8.431	0.951	0.066	0.081	0.015	0.010	0.014	0.000				1328.51	
28	0.6254	1029.0	1047.2		0.788	3.472	87.120	7.502	0.928	0.068	0.081	0.015	0.011	0.014	0.000				1324.22	
AVG	0.6330	1039.0	1057.3		0.808	3.558	85.640	8.779	1.028	0.067	0.084	0.013	0.009	0.014	0.000				1328.91	

Zone 273

GQ Source Daily Summary

February 2009

Number: 041

Name: BISMARCK PLANT DICKINSON PLANT

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Critherm
1	0.6047	1009.2	1027.1		0.953	2.484	91.662	3.920	0.717	0.103	0.095	0.027	0.017	0.023	0.000				1320.79	
2	0.6008	998.7	1016.4		1.110	2.519	92.302	3.310	0.568	0.071	0.069	0.019	0.012	0.020	0.000				1311.30	
3	0.5984	993.7	1011.3		1.122	2.580	92.631	3.018	0.497	0.058	0.057	0.014	0.009	0.015	0.000				1307.36	
4	0.6003	998.0	1015.7		1.144	2.463	92.408	3.245	0.560	0.069	0.067	0.018	0.011	0.015	0.000				1310.94	
5	0.6015	1001.5	1019.3		1.110	2.408	92.243	3.440	0.594	0.079	0.074	0.021	0.013	0.019	0.000				1314.29	
6	0.6028	1005.1	1022.9		1.130	2.284	92.111	3.608	0.641	0.088	0.081	0.023	0.015	0.021	0.000				1317.50	
7	0.6003	998.1	1015.8		1.163	2.433	92.514	3.113	0.565	0.081	0.074	0.022	0.014	0.023	0.000				1310.97	
8	0.5999	997.9	1015.6		1.115	2.481	92.505	3.139	0.560	0.076	0.071	0.020	0.013	0.021	0.000				1311.15	
9	0.6015	1002.9	1020.7		1.133	2.295	92.279	3.486	0.602	0.078	0.073	0.020	0.013	0.021	0.000				1316.02	
10	0.6021	1002.8	1020.6		1.216	2.226	92.257	3.489	0.612	0.078	0.071	0.020	0.012	0.020	0.000				1315.29	
11	0.6045	1009.0	1026.9		1.190	2.114	91.849	3.969	0.656	0.086	0.078	0.022	0.014	0.021	0.000				1320.77	
12	0.6049	1008.5	1026.4		1.197	2.171	91.774	3.972	0.665	0.084	0.078	0.022	0.014	0.021	0.000				1319.68	
13	0.6035	1007.1	1024.9		1.095	2.287	91.951	3.770	0.669	0.086	0.082	0.023	0.015	0.023	0.000				1319.29	
14	0.6028	1004.6	1022.4		1.118	2.338	92.051	3.645	0.631	0.080	0.077	0.022	0.014	0.024	0.000				1316.82	
15	0.6040	1005.5	1023.3		1.172	2.307	91.891	3.770	0.643	0.081	0.078	0.022	0.014	0.023	0.000				1316.77	
16	0.6023	1002.7	1020.5		1.164	2.332	92.133	3.572	0.600	0.073	0.071	0.020	0.013	0.022	0.000				1314.93	
17	0.6011	999.5	1017.2		1.177	2.394	92.333	3.331	0.578	0.070	0.068	0.018	0.012	0.018	0.000				1312.03	
18	0.6025	1001.8	1019.5		1.219	2.332	92.123	3.539	0.589	0.071	0.072	0.020	0.013	0.022	0.000				1313.39	
19	0.6019	999.6	1017.3		1.246	2.366	92.230	3.396	0.573	0.069	0.068	0.019	0.012	0.020	0.000				1311.19	
20	0.6024	1000.2	1017.9		1.222	2.410	92.127	3.462	0.584	0.071	0.071	0.020	0.013	0.021	0.000				1311.49	
21	0.6033	1004.4	1022.2		1.126	2.383	91.955	3.686	0.636	0.077	0.076	0.022	0.015	0.024	0.000				1316.01	
22	0.6050	1004.3	1022.0		1.080	2.627	91.461	4.004	0.635	0.070	0.070	0.019	0.013	0.021	0.000				1313.94	
23	0.6019	999.8	1017.5		1.054	2.650	92.023	3.490	0.590	0.071	0.069	0.020	0.013	0.021	0.000				1313.40	
24	0.6039	1001.8	1019.6		0.968	2.841	91.522	3.858	0.621	0.069	0.069	0.019	0.013	0.021	0.000				1311.97	
25	0.6040	1000.9	1018.6		0.912	2.989	91.436	3.842	0.634	0.068	0.070	0.018	0.012	0.018	0.000				1310.66	
26	0.6070	1005.9	1023.7		0.900	2.978	90.926	4.295	0.693	0.073	0.079	0.020	0.014	0.020	0.000				1314.05	
27	0.6073	1008.0	1025.8		0.843	2.977	90.781	4.493	0.705	0.073	0.078	0.019	0.013	0.018	0.000				1316.30	
28	0.6073	1007.2	1025.1		0.903	2.931	90.836	4.438	0.692	0.072	0.077	0.019	0.013	0.019	0.000				1315.32	
AVG	0.6029	1003.0	1020.6		1.099	2.486	91.940	3.653	0.618	0.076	0.074	0.020	0.013	0.021	0.000				1314.34	

Zone 28

GQ Source Daily Summary

February 2009

Number: 271

Name: DICKINSON BORDER

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Crit'herm
1	0.6022	1003.8	1021.6		1.034	2.445	92.031	3.634	0.652	0.088	0.081	0.006	0.000	0.028	0.000				1316.51	
2	0.5997	994.7	1012.3		1.175	2.558	92.432	3.146	0.539	0.061	0.061	0.000	0.000	0.027	0.000				1307.18	
3	0.5981	993.7	1011.3		1.119	2.558	92.624	3.054	0.512	0.057	0.055	0.000	0.000	0.022	0.000				1307.58	
4	0.5998	999.3	1017.0		1.116	2.374	92.441	3.323	0.581	0.072	0.068	0.001	0.000	0.024	0.000				1313.18	
5	0.6007	1003.7	1021.5		1.098	2.219	92.339	3.547	0.615	0.080	0.074	0.002	0.000	0.026	0.000				1317.92	
6	0.5990	1000.0	1017.7		1.104	2.281	92.649	3.201	0.584	0.080	0.073	0.002	0.000	0.027	0.000				1314.84	
7	0.5980	997.0	1014.7		1.103	2.364	92.791	3.021	0.551	0.074	0.068	0.000	0.000	0.027	0.000				1312.12	
8	0.5978	997.9	1015.5		1.080	2.327	92.792	3.094	0.548	0.070	0.065	0.000	0.000	0.026	0.000				1313.49	
9	0.5984	1001.9	1019.7		1.121	2.074	92.771	3.301	0.569	0.071	0.066	0.000	0.000	0.025	0.000				1318.14	
10	0.6014	1004.4	1022.2		1.193	2.102	92.291	3.618	0.622	0.078	0.070	0.000	0.000	0.026	0.000				1318.10	
11	0.6013	1007.7	1025.6		1.111	2.005	92.272	3.806	0.631	0.078	0.071	0.000	0.000	0.027	0.000				1322.63	
12	0.6034	1006.0	1023.8		1.194	2.184	91.978	3.778	0.673	0.084	0.078	0.004	0.000	0.028	0.000				1318.02	
13	0.6021	1005.2	1023.0		1.062	2.307	92.079	3.706	0.653	0.082	0.078	0.002	0.000	0.029	0.000				1318.45	
14	0.6027	1003.5	1021.3		1.162	2.322	91.991	3.712	0.632	0.076	0.074	0.001	0.000	0.029	0.000				1315.50	
15	0.6033	1004.3	1022.0		1.181	2.300	91.936	3.747	0.649	0.079	0.077	0.002	0.000	0.029	0.000				1315.87	
16	0.6001	998.9	1016.6		1.146	2.379	92.386	3.367	0.571	0.064	0.062	0.000	0.000	0.026	0.000				1312.33	
17	0.6018	1000.2	1017.9		1.235	2.323	92.203	3.470	0.600	0.072	0.071	0.000	0.000	0.027	0.000				1312.22	
18	0.6032	999.1	1016.8		1.285	2.451	91.926	3.574	0.599	0.069	0.069	0.000	0.000	0.028	0.000				1309.30	
19	0.6026	998.8	1016.4		1.288	2.410	92.064	3.471	0.598	0.071	0.070	0.000	0.000	0.027	0.000				1309.45	
20	0.6008	1000.2	1017.9		1.164	2.343	92.305	3.434	0.590	0.069	0.068	0.000	0.000	0.027	0.000				1313.19	
21	0.6046	1003.9	1021.7		1.147	2.496	91.606	3.907	0.662	0.075	0.074	0.003	0.000	0.030	0.000				1314.03	
22	0.6034	1001.9	1019.6		1.081	2.609	91.700	3.806	0.638	0.070	0.069	0.000	0.000	0.026	0.000				1312.63	
23	0.6020	999.6	1017.3		0.992	2.757	91.830	3.657	0.603	0.067	0.066	0.001	0.000	0.027	0.000				1311.06	
24	0.6024	999.1	1016.8		0.942	2.891	91.667	3.748	0.602	0.063	0.063	0.000	0.000	0.025	0.000				1310.14	
25	0.6055	1003.3	1021.1		0.906	2.986	91.106	4.139	0.689	0.072	0.076	0.000	0.000	0.026	0.000				1312.22	
26	0.6058	1005.0	1022.8		0.880	2.954	91.000	4.313	0.687	0.068	0.073	0.000	0.000	0.025	0.000				1314.06	
27	0.6065	1006.8	1024.7		0.836	2.972	90.864	4.438	0.714	0.073	0.078	0.000	0.000	0.025	0.000				1315.73	
28	0.6101	1006.9	1024.7		0.977	3.091	90.303	4.699	0.743	0.075	0.081	0.001	0.000	0.028	0.000				1312.13	
Avg	0.6020	1002.0	1019.4		1.098	2.467	92.013	3.633	0.618	0.073	0.071	0.001	0.000	0.027	0.000				1313.86	

Zone 31

GQ Source Daily Summary

February 2009

Number: 051

Name: CABIN CREEK DICKINSON PLANT

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Crit'herm
1	0.6011	1000.0	1017.7		1.089	2.500	92.307	3.290	0.603	0.079	0.075	0.021	0.013	0.021	0.000				1312.61	
2	0.5980	993.3	1010.9		1.127	2.561	92.747	2.897	0.509	0.060	0.059	0.015	0.010	0.016	0.000				1307.25	
3	0.5983	994.1	1011.7		1.132	2.536	92.700	2.951	0.521	0.062	0.060	0.015	0.010	0.014	0.000				1307.93	
4	0.6007	999.2	1016.9		1.124	2.459	92.407	3.209	0.597	0.079	0.074	0.020	0.013	0.018	0.000				1312.01	
5	0.6019	1004.7	1022.5		1.134	2.221	92.320	3.438	0.655	0.090	0.082	0.023	0.015	0.021	0.000				1317.93	
6	0.5993	996.4	1014.1		1.167	2.431	92.727	2.896	0.567	0.081	0.074	0.022	0.014	0.022	0.000				1309.93	
7	0.5992	996.8	1014.5		1.121	2.467	92.674	2.967	0.567	0.077	0.072	0.021	0.013	0.021	0.000				1310.56	
8	0.5999	999.7	1017.4		1.129	2.337	92.598	3.140	0.591	0.078	0.073	0.020	0.013	0.021	0.000				1313.67	
9	0.6017	1002.8	1020.6		1.227	2.173	92.374	3.398	0.624	0.079	0.073	0.020	0.013	0.020	0.000				1315.72	
10	0.6022	1004.8	1022.6		1.195	2.147	92.288	3.510	0.642	0.085	0.077	0.022	0.014	0.020	0.000				1317.78	
11	0.6041	1007.7	1025.6		1.204	2.137	91.941	3.833	0.666	0.084	0.077	0.022	0.014	0.022	0.000				1319.49	
12	0.6033	1006.6	1024.4		1.126	2.249	92.037	3.688	0.673	0.086	0.082	0.023	0.015	0.022	0.000				1318.89	
13	0.6019	1004.3	1022.1		1.074	2.339	92.206	3.520	0.640	0.082	0.079	0.022	0.015	0.023	0.000				1317.38	
14	0.6030	1003.9	1021.7		1.177	2.303	92.086	3.582	0.637	0.080	0.077	0.021	0.014	0.023	0.000				1315.74	
15	0.6023	1002.8	1020.6		1.178	2.303	92.204	3.479	0.626	0.077	0.076	0.021	0.014	0.022	0.000				1315.07	
16	0.5999	998.4	1016.1		1.149	2.397	92.513	3.191	0.570	0.068	0.065	0.018	0.012	0.017	0.000				1311.82	
17	0.6016	1000.4	1018.1		1.219	2.324	92.346	3.308	0.600	0.074	0.074	0.021	0.014	0.022	0.000				1312.64	
18	0.6006	997.7	1015.3		1.242	2.364	92.478	3.167	0.564	0.068	0.067	0.018	0.012	0.020	0.000				1310.11	
19	0.6017	998.9	1016.6		1.246	2.384	92.314	3.269	0.589	0.072	0.072	0.020	0.013	0.021	0.000				1310.59	
20	0.6022	1002.2	1019.9		1.129	2.414	92.138	3.487	0.625	0.075	0.074	0.021	0.014	0.022	0.000				1314.24	
21	0.6034	1002.7	1020.4		1.097	2.542	91.821	3.720	0.626	0.070	0.070	0.019	0.013	0.022	0.000				1313.67	
22	0.6005	997.7	1015.4		1.093	2.580	92.351	3.204	0.579	0.072	0.069	0.019	0.013	0.020	0.000				1310.25	
23	0.6044	1002.3	1020.1		0.950	2.876	91.443	3.896	0.640	0.070	0.071	0.019	0.013	0.021	0.000				1312.18	
24	0.6017	997.9	1015.6		0.956	2.891	91.896	3.490	0.589	0.066	0.065	0.018	0.012	0.018	0.000				1309.21	
25	0.6062	1004.9	1022.7		0.904	2.961	91.100	4.132	0.695	0.074	0.080	0.020	0.014	0.020	0.000				1313.55	
26	0.6064	1006.2	1024.0		0.863	2.963	90.985	4.298	0.693	0.072	0.077	0.019	0.013	0.018	0.000				1315.06	
27	0.6067	1006.6	1024.4		0.874	2.956	90.928	4.345	0.699	0.072	0.076	0.019	0.013	0.019	0.000				1315.18	
28	0.6070	1007.2	1025.1		0.932	2.859	90.983	4.303	0.709	0.078	0.081	0.021	0.014	0.020	0.000				1315.65	
Avg	0.6021	1001.0	1019.2		1.102	2.488	92.104	3.486	0.618	0.075	0.073	0.020	0.013	0.020	0.000				1313.43	

Zone 32

GQ Source Daily Summary

February 2009

Number: 111

Name: LITTLE KNIFE PLANT

Pressure Base: 14.730

Temperature Base:

Contract Day: 1 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	Crit'herm
1	0.6682	1136.2	1156.3	0.000	0.000	2.188	76.915	20.427	0.452	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.55	
2	0.6672	1134.7	1154.8	0.000	0.000	2.182	77.096	20.273	0.430	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.81	
3	0.6685	1136.1	1156.3	0.000	0.000	2.221	76.849	20.453	0.460	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.16	
4	0.6687	1135.9	1156.0	0.000	0.000	2.251	76.821	20.433	0.477	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.69	
5	0.6692	1137.2	1157.4	0.000	0.000	2.216	76.741	20.535	0.489	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.82	
6	0.6690	1137.1	1157.3	0.000	0.000	2.200	76.785	20.518	0.478	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.94	
7	0.6686	1137.0	1157.1	0.000	0.000	2.175	76.846	20.498	0.464	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.15	
8	0.6691	1137.8	1158.0	0.000	0.000	2.169	76.753	20.591	0.469	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.67	
9	0.6687	1136.9	1157.1	0.000	0.000	2.185	76.818	20.525	0.454	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.00	
10	0.6684	1137.6	1157.7	0.000	0.000	2.124	76.863	20.554	0.441	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.05	
11	0.6693	1138.5	1158.7	0.000	0.000	2.154	76.681	20.701	0.446	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.23	
12	0.6705	1139.5	1159.6	0.000	0.000	2.207	76.441	20.876	0.459	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.18	
13	0.6700	1138.0	1158.1	0.000	0.000	2.250	76.536	20.738	0.458	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.87	
14	0.6691	1137.0	1157.2	0.000	0.000	2.220	76.712	20.607	0.441	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.66	
15	0.6690	1137.5	1157.6	0.000	0.000	2.187	76.742	20.601	0.451	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.27	
16	0.6683	1136.3	1156.4	0.000	0.000	2.190	76.871	20.488	0.434	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.61	
17	0.6693	1136.9	1157.0	0.000	0.000	2.250	76.658	20.639	0.436	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.27	
18	0.6687	1136.2	1156.3	0.000	0.000	2.236	76.786	20.521	0.439	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.01	
19	0.6694	1137.1	1157.2	0.000	0.000	2.245	76.656	20.627	0.455	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.42	
20	0.6688	1136.7	1156.8	0.000	0.000	2.213	76.762	20.579	0.427	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.55	
21	0.6691	1136.9	1157.0	0.000	0.000	2.234	76.719	20.569	0.461	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.44	
22	0.6684	1135.8	1155.9	0.000	0.000	2.232	76.845	20.469	0.437	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.86	
23	0.6683	1135.7	1155.9	0.000	0.000	2.224	76.887	20.418	0.453	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.90	
24	0.6631	1129.2	1149.1	0.000	0.000	2.138	77.947	19.453	0.445	0.008	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1411.17	
25	0.6702	1138.6	1158.7	0.000	0.000	2.228	76.485	20.833	0.436	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.45	
26	0.6703	1139.1	1159.3	0.000	0.000	2.211	76.432	20.933	0.407	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1415.94	
27	0.6689	1136.5	1156.6	0.000	0.000	2.234	76.728	20.608	0.413	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.19	
28	0.6679	1134.9	1155.0	0.000	0.000	2.239	76.942	20.369	0.432	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.25	
Avg	0.6687	1137.0	1156.8	0.000	0.000	2.207	76.797	20.530	0.448	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1414.61	

Zone 33

Williston Basin Interstate Pipeline Co. GQ Source Analysis

GQ Source Number:	1202160	Specific Gravity:	0.7967
GQ Source Name:	BOWMAN BORDER	BTU Base:	Dry
Effective Date:	2/1/2009 9:00:00 AM	Dry Heat Value:	1163.64
Effective End Date:	1/18/2038 9:14:07 PM	Wet Heat Value:	1143.38
Pressure Base:	14.730	As Deliv. Heat Value:	1163.64
Viscosity:			

		<u>Mol %</u>	<u>Imported GPM</u>	<u>Calculated GPM</u>
C1	Methane	55.738		
C2	Ethane	27.108		7.228
C3	Propane	4.031	1.107	1.107
IC4	Iso-Butane	0.104	0.034	0.034
NC4	N-Butane	0.314	0.099	0.099
IC5	Iso-Pentane	0.018	0.007	0.007
NC5	N-Pentane	0.037	0.013	0.013
C6+	Hexanes Plus	0.005	0.002	0.002
CO2	Carbon Dioxide	2.253		
N2	Nitrogen	10.389		
O2	Oxygen	0.000		
HE	Helium			
H2	Hydrogen			
H2S	Hydrogen Sulfide			
Totals		99.997	1.262	8.490

Sample Date: 1/23/2009 12:00:00 AM
Sample Type: Composite
Sample Tech: sampler
Sample Remarks: Zone 34
Analysis Remarks:

Williston Basin Interstate Pipeline Co. GQ Source Analysis

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

		<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		
Totals		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:

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	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	12 MONTH AVERAGE	FEB 09	JAN 09	DEC 08	NOV 08	OCT 08	SEPT 08	AUG 08	JULY 08	JUNE 08	MAY 08	APR 08	MAR 08	ZONE
MT/ND	211	Sidney Area	1144	1019	1021	1065	1184	1195	1198	1194	1192	1192	1195	1180	1095	211
ND	24	Williston Area	1172	1101	1158	1195	1171	1173	1175	1189	1189	1189	1189	1167	1160	24
ND	25	Warford City Area	1128	1128	1130	1127	1126	1130	1129	1131	1132	1130	1130	1120	1119	25
ND	261	Williston - Tioga - Minot Line	1132	1101	1102	1123	1148	1112	1130	1135	1148	1148	1141	1155	1140	261
ND	262	Minot Area	1135	1114	1105	1129	1147	1116	1133	1141	1147	1144	1152	1156	1141	262
ND	263	Tioga - Portal	1129	1099	1103	1139	1125	1129	1142	1145	1141	1132	1136	1127	1125	263
ND	264	Williston - Ray	1173	1101	1158	1195	1171	1173	1175	1189	1189	1189	1189	1167	0	264
ND	271	Bismarck - Cleveland	1110	1058	1056	1081	1129	1068	1127	1140	1146	1142	1151	1138	1086	271
ND	272	Cleveland - Mapleton	1110	1057	1056	1080	1129	1068	1126	1140	1146	1142	1151	1137	1086	272
ND	273	Cleveland - Grafton	1110	1057	1056	1080	1129	1068	1127	1140	1146	1142	1151	1137	1086	273
ND	28	Bismarck - Cabin Creek	1067	1021	1028	1013	1008	1038	1088	1116	1147	1143	1135	1035	1023	28
ND	31	Dickinson Area	1029	1019	1028	1018	1008	1037	1038	1044	1040	1032	1037	1023	1022	31
ND/MT	32	Cabin Creek - Dickinson	1026	1019	1027	1018	1007	1037	1032	1036	1036	1027	1031	1019	1020	32
ND	33	Killdeer	1150	1157	1156	1154	1160	1158	1158	1161	1158	1149	1146	1126	1122	33
ND	34	Bowman Area	1168	1164	1168	1168	1160	1176	1176	1179	1170	1165	1167	1158	1161	34
ND	35	Baker Field - North Dakota	975	974	974	974	974	974	974	974	974	976	976	976	976	35

THERMAL ZONE VARIANCE DOCUMENTATION		
February 2009		
<i>ZONE</i>	<i>BTU VARIANCE</i>	<i>REASON</i>
24	-57	Receipt from Tioga Area
264	-57	Receipt from Tioga Area