MONTANA-DAKOTA
UTILITIES CO.
A Division of MDU Resources Group, Inc.

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

August 12, 2014

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

Re: Case No. 11,006 (Therm Billing)
Monthly Report – June 2014

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 July 2014.

2. Attachment B consists of copies of the monthly Heating Value Test Reports received from our supplier for the month of June 2014. There is a report for each of the 17 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 June 2014.

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
Director of Regulatory Affairs

Montana-Dakota Utilities Co.
Therm Billing Factors - North Dakota
July 2014

Town	Heat Zone	Therm Factor
MDU-303-ALEXANDER	025	1.1580
MDU-308-ARNEGARD	025	1.1580
MDU-314-APPLE VALLEY	271	1.1231
MDU-318-BEACH	032	1.0480
MDU-319-BELFIELD	032	1.0557
MDU-323-BERTHOLD	262	1.1013
MDU-327-BISMARCK	028	1.1221
MDU-330-BOWMAN	034	1.0265
MDU-337-BURLINGTON	262	1.1250
MDU-343-CARRINGTON	273	1.1221
MDU-344-CLEVELAND	272	1.1142
MDU-364-CAVALIER	273	1.1458
MDU-365-DAWSON	271	1.1152
MDU-368-DES LACS	262	1.1092
MDU-369-DICKINSON	031	1.0981
MDU-374-FT TOTTEN	273	1.1300
MDU-375-DEVILS LAKE	273	1.1300
MDU-379-BARLOW	273	1.1221
MDU-384-EPPING	264	1.1173
MDU-387-ELDRIDGE	272	1.1221
MDU-407-GLADSTONE	031	1.0981
MDU-411-GLEN ULLIN	311	1.0748
MDU-413-GOLVA	032	1.0326
MDU-416-GARRISON	262	1.1092
MDU-417-GRAFTON	273	1.1537
MDU-429-HEBRON	311	1.0748
MDU-432-HETTINGER	903	2.3875
MDU-449-JAMESTOWN	272	1.1300
MDU-459-KILLDEER	033	1.1173
MDU-463-LANGDON	273	1.1221
MDU-469-LEFOR	031	1.0981
MDU-474-LIGNITE	263	1.0255
MDU-475-LINTON	802	1.0102
MDU-478-LINCOLN	028	1.1221
MDU-494-MEDINA	271	1.1152
MDU-498-MANDAN	028	1.1221
MDU-500-MARMARTH	034	1.0341
MDU-505-MINOT	262	1.1250
MDU-510-MOTT	031	1.0981
MDU-512-MAX	262	1.1250
MDU-522-NEW ENGLAND	031	1.0901
MDU-524-NEW SALEM	028	1.0985
MDU-532-NEW ROCKFORD	273	1.1221
MDU-539-PARK RIVER	273	1.1458
MDU-540-PALERMO	262	1.1013
MDU-558-RAY	264	1.1173
MDU-561-REGENT	031	1.0981
MDU-563-RHAME	034	1.0189
MDU-564-RICHARDTON	311	1.0287

MDU-568-ROSS	261	1.0455
MDU-572-RUTHVILLE	262	1.1250
MDU-574-SANBORN	272	1.1300
MDU-583-SENTINEL BUTTE	032	1.0480
MDU-588-SOUTH HEART	031	1.0901
MDU-717-SPIRITWOOD	272	1.1300
MDU-590-SPRINGBROOK	264	1.1173
MDU-591-STANLEY	261	1.0531
MDU-593-STEELE	271	1.1152
MDU-598-SHEYENNE	273	1.1300
MDU-605-SURREY	262	1.1250
MDU-610-TAPPEN	271	1.1152
MDU-611-TAYLOR	031	1.0901
MDU-616-TIOGA	261	1.0607
MDU-619-TURTLE LAKE	262	1.1092
MDU-620-TRENTON	024	1.1254
MDU-624-UNDERWOOD	262	1.1092
MDU-625-VALLEY CITY	272	1.1379
MDU-629-WALHALLA	273	1.1458
MDU-632-WATFORD CITY	025	1.1287
MDU-636-WHEELOCK	264	1.1093
MDU-637-WHITE EARTH	261	1.0531
MDU-642-WILLISTON	024	1.1254
MDU-646-WASHBURN	262	1.1171
MDU-647-WILTON	262	1.1013
MDU-664-RIVERDALE	262	1.1092
MDU-691-FAIRVIEW	241	1.1435
MDU-712-MINOT AFB	262	1.1250
MDU-732-MSR SITE	273	1.1212

WBI Energy Transmission, Inc.

GQ Source Daily Summary

June 2014

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

Name: SIDNEY BORDER-MONDAK JNCTN-SIDNEY PLANT **Temperature Base:** **Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7425	1195.5	1216.7	1.186	3.730	67.924	21.841	4.927	0.129	0.238	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1412.03	
2	0.7440	1198.1	1219.3	1.181	3.722	67.793	21.812	5.091	0.134	0.243	0.014	0.011	0.000	0.000	0.000	0.000	0.000	1413.63	
3	0.7387	1189.7	1210.8	1.189	3.723	68.356	21.788	4.531	0.134	0.251	0.015	0.012	0.000	0.000	0.000	0.000	0.000	1408.76	
4	0.7263	1185.2	1206.2	0.680	3.624	68.981	23.007	3.446	0.090	0.158	0.008	0.006	0.000	0.000	0.000	0.000	0.000	1415.35	
5	0.7221	1182.5	1203.5	0.525	3.621	69.351	23.092	3.197	0.074	0.128	0.006	0.005	0.000	0.000	0.000	0.000	0.000	1416.32	
6	0.7355	1184.1	1205.1	1.191	3.765	68.842	21.533	4.165	0.157	0.304	0.022	0.020	0.000	0.000	0.000	0.000	0.000	1405.11	
7	0.7410	1193.5	1214.6	1.198	3.697	68.033	22.006	4.633	0.142	0.263	0.015	0.013	0.000	0.000	0.000	0.000	0.000	1411.03	
8	0.7553	1216.8	1238.3	1.171	3.653	66.897	21.732	5.834	0.220	0.433	0.032	0.027	0.000	0.000	0.000	0.000	0.000	1424.76	
9	0.7495	1207.2	1228.6	1.187	3.666	67.728	21.376	5.266	0.224	0.467	0.042	0.042	0.000	0.000	0.000	0.000	0.000	1418.97	
10	0.7382	1190.1	1211.1	1.187	3.661	68.330	21.929	4.553	0.114	0.205	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1409.64	
11	0.7402	1193.8	1214.9	1.174	3.643	68.179	21.833	4.829	0.115	0.207	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1412.12	
12	0.7414	1195.7	1216.9	1.171	3.639	68.317	21.362	5.140	0.128	0.221	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1413.24	
13	0.7364	1187.2	1208.2	1.181	3.671	68.839	21.322	4.607	0.126	0.228	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1407.97	
14	0.7348	1185.3	1206.3	1.178	3.647	68.635	22.153	3.945	0.137	0.267	0.019	0.018	0.000	0.000	0.000	0.000	0.000	1407.25	
15	0.7303	1178.3	1199.2	1.172	3.670	68.906	22.362	3.551	0.113	0.205	0.012	0.009	0.000	0.000	0.000	0.000	0.000	1403.18	
16	0.7196	1189.6	1210.7	0.196	3.457	69.171	24.079	2.953	0.053	0.085	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1427.24	
17	0.7248	1180.6	1201.5	0.792	3.592	69.272	22.787	3.282	0.093	0.165	0.009	0.007	0.000	0.000	0.000	0.000	0.000	1411.27	
18	0.7307	1179.1	1200.0	1.190	3.627	68.993	22.152	3.714	0.107	0.196	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1403.80	
19	0.7337	1183.6	1204.5	1.186	3.642	68.851	21.849	4.113	0.118	0.219	0.013	0.010	0.000	0.000	0.000	0.000	0.000	1406.20	
20	0.7323	1180.9	1201.8	1.171	3.687	69.114	21.570	4.100	0.118	0.216	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1404.44	
21	0.7319	1179.9	1200.8	1.163	3.726	69.434	21.011	4.267	0.131	0.241	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1403.56	
22	0.7354	1185.6	1206.6	1.155	3.714	69.092	20.994	4.650	0.130	0.239	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1407.04	
23	0.7378	1189.6	1210.6	1.158	3.697	68.890	20.916	4.954	0.127	0.234	0.014	0.011	0.000	0.000	0.000	0.000	0.000	1409.40	
24	0.7321	1180.8	1201.7	1.196	3.640	69.194	21.500	4.114	0.117	0.216	0.013	0.010	0.000	0.000	0.000	0.000	0.000	1404.49	
25	0.7289	1175.3	1196.1	1.189	3.686	69.196	22.057	3.555	0.104	0.191	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1401.06	
26	0.7333	1182.4	1203.3	1.176	3.692	68.721	22.115	3.962	0.112	0.202	0.011	0.009	0.000	0.000	0.000	0.000	0.000	1405.18	
27	0.7283	1174.2	1195.0	1.181	3.711	69.290	21.971	3.516	0.110	0.200	0.011	0.010	0.000	0.000	0.000	0.000	0.000	1400.32	
28	0.7300	1177.9	1198.8	1.161	3.677	69.061	22.129	3.628	0.113	0.208	0.012	0.010	0.000	0.000	0.000	0.000	0.000	1403.05	
29	0.7251	1168.6	1189.2	1.165	3.774	70.184	20.809	3.699	0.121	0.222	0.013	0.011	0.000	0.000	0.000	0.000	0.000	1396.61	
30	0.7229	1164.5	1185.1	1.190	3.778	70.467	20.654	3.568	0.114	0.208	0.012	0.009	0.000	0.000	0.000	0.000	0.000	1393.90	
Avg	0.7341	1186.0	1206.9	1.095	3.674	68.801	21.858	4.193	0.124	0.229	0.014	0.012	0.000	0.000	0.000	0.000	0.000	1408.56	

Zone 211

WBI Energy Transmission, Inc.

GQ Source Daily Summary

June 2014

Number: 372 **Pressure Base:** 14.730 **Contract Day:** 1

Name: NESSON PLANT-CHARBONNEAU STATION **Temperature Base:** **Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6982	1156.7	1177.2	0.865	2.436	73.368	21.324	1.789	0.065	0.134	0.008	0.009	0.000	0.000	0.000	0.000	0.000	1408.85	
2	0.6975	1157.1	1177.6	0.858	2.357	73.237	21.802	1.544	0.062	0.126	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1410.05	
3	0.6986	1156.2	1176.7	0.863	2.509	73.295	21.306	1.808	0.064	0.135	0.009	0.011	0.000	0.000	0.000	0.000	0.000	1407.83	
4	0.6987	1159.4	1179.9	0.872	2.309	73.006	22.071	1.545	0.060	0.121	0.008	0.008	0.000	0.000	0.000	0.000	0.000	1411.62	
5	0.7172	1180.5	1201.4	0.804	2.855	71.888	20.473	3.297	0.174	0.430	0.037	0.042	0.000	0.000	0.000	0.000	0.000	1418.51	
6	0.7038	1157.6	1178.1	0.816	2.981	72.724	20.956	2.239	0.077	0.174	0.014	0.018	0.000	0.000	0.000	0.000	0.000	1404.30	
7	0.7034	1158.6	1179.1	0.825	2.868	72.561	21.419	2.091	0.069	0.147	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1405.95	
8	0.7034	1157.7	1178.2	0.830	2.913	72.670	21.200	2.126	0.073	0.160	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1404.86	
9	0.7048	1160.4	1181.0	0.828	2.883	72.385	21.504	2.138	0.073	0.161	0.012	0.015	0.000	0.000	0.000	0.000	0.000	1406.77	
10	0.7073	1166.9	1187.5	0.848	2.695	72.383	21.378	2.303	0.104	0.241	0.022	0.026	0.000	0.000	0.000	0.000	0.000	1411.97	
11	0.7035	1161.5	1182.0	0.850	2.663	72.646	21.523	2.034	0.079	0.175	0.013	0.016	0.000	0.000	0.000	0.000	0.000	1409.33	
12	0.7054	1162.1	1182.7	0.844	2.818	72.402	21.430	2.218	0.080	0.178	0.013	0.016	0.000	0.000	0.000	0.000	0.000	1408.14	
13	0.7032	1161.4	1182.0	0.861	2.627	72.566	21.753	1.936	0.072	0.158	0.012	0.015	0.000	0.000	0.000	0.000	0.000	1409.51	
14	0.7040	1162.0	1182.6	0.864	2.661	72.538	21.640	2.012	0.078	0.175	0.014	0.017	0.000	0.000	0.000	0.000	0.000	1409.41	
15	0.7017	1159.7	1180.2	0.856	2.595	72.995	21.227	2.067	0.075	0.161	0.011	0.013	0.000	0.000	0.000	0.000	0.000	1408.96	
16	0.6976	1159.2	1179.7	0.879	2.212	73.118	22.148	1.465	0.055	0.110	0.007	0.007	0.000	0.000	0.000	0.000	0.000	1412.46	
17	0.7040	1162.9	1183.5	0.857	2.609	72.760	21.282	2.190	0.083	0.185	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1410.60	
18	0.7064	1163.2	1183.8	0.837	2.858	72.378	21.267	2.345	0.088	0.194	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1408.40	
19	0.7047	1160.6	1181.1	0.844	2.841	72.691	20.954	2.405	0.076	0.164	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1407.01	
20	0.7040	1162.2	1182.8	0.848	2.674	72.654	21.372	2.179	0.077	0.168	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1409.64	
21	0.7042	1161.6	1182.2	0.841	2.739	72.492	21.568	2.092	0.075	0.165	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1408.75	
22	0.7056	1161.9	1182.5	0.833	2.862	72.502	21.209	2.267	0.088	0.202	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1407.73	
23	0.7053	1160.6	1181.2	0.836	2.906	72.401	21.367	2.209	0.077	0.173	0.014	0.017	0.000	0.000	0.000	0.000	0.000	1406.49	
24	0.7096	1167.7	1188.4	0.832	2.888	72.019	21.434	2.422	0.103	0.247	0.023	0.030	0.000	0.000	0.000	0.000	0.000	1410.69	
25	0.7090	1164.6	1185.3	0.818	3.037	72.257	20.892	2.606	0.102	0.241	0.021	0.026	0.000	0.000	0.000	0.000	0.000	1407.61	
26	0.7119	1170.8	1191.5	0.814	2.935	71.894	21.246	2.646	0.118	0.287	0.026	0.033	0.000	0.000	0.000	0.000	0.000	1412.20	
27	0.7111	1168.3	1189.0	0.829	2.994	71.728	21.582	2.482	0.100	0.237	0.022	0.028	0.000	0.000	0.000	0.000	0.000	1409.97	
28	0.7064	1162.4	1182.9	0.834	2.908	72.360	21.243	2.351	0.085	0.188	0.014	0.017	0.000	0.000	0.000	0.000	0.000	1407.47	
29	0.7076	1165.6	1186.2	0.842	2.808	72.117	21.632	2.279	0.087	0.197	0.016	0.021	0.000	0.000	0.000	0.000	0.000	1410.22	
30	0.7016	1158.2	1178.7	0.845	2.695	72.714	21.678	1.829	0.068	0.148	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1407.23	
Avg	0.7046	1162.0	1182.8	0.843	2.738	72.558	21.396	2.164	0.083	0.186	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1409.08	

Zone 24, 264

GQ Source Analysis

GQ Source Number:	0602160	**Specific Gravity:**	0.7328
GQ Source Name:	FAIRVIEW BORDER	**Dry Heat Value:**	1202.43
Effective Date:	6/1/2014 9:00:00 AM	**Wet Heat Value:**	1181.50
Effective End Date	1/18/2038 9:14:00 PM	**As Deliv. Heat Value:**	1202.43
Pressure Base:	14.730	**Sample Pressure:**	383.00
Viscosity:		**Sample Temperature:**	0.00

		Mol %	Liquid Content			Mol %
C1	Methane	69.018		CO2	Carbon Dioxide	1.185
C2	Ethane	21.365	5.6968	N2	Nitrogen	3.633
C3	Propane	4.385	1.2045	O2	Oxygen	0.011
IC4	Isobutane	0.138	0.0449	He	Helium	
NC4	n-Butane	0.238	0.0748	H2	Hydrogen	
IC5	Isopentane	0.015	0.0054	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.013	0.0047	Ar	Argon	
C6	Hexanes	0.000	0.0000	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					

Totals 100.000% 7.031 GPM

Sample Date:
Sample Type: Composite
Sample Tech: RR
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 241

GQ Source Analysis

GQ Source Number:	0602230	**Specific Gravity:**	0.7482
GQ Source Name:	WATFORD CITY BORDER	**Dry Heat Value:**	1226.08
Effective Date:	6/1/2014 9:00:00 AM	**Wet Heat Value:**	1204.74
Effective End Date	1/18/2038 9:14:00 PM	**As Deliv. Heat Value:**	1226.08
Pressure Base:	14.730	**Sample Pressure:**	341.00
Viscosity:		**Sample Temperature:**	0.00

		Mol %	Liquid Content			Mol %
C1	Methane	67.576		CO2	Carbon Dioxide	0.868
C2	Ethane	21.207	5.6546	N2	Nitrogen	4.144
C3	Propane	5.196	1.4274	O2	Oxygen	0.000
IC4	Isobutane	0.255	0.0831	He	Helium	
NC4	n-Butane	0.619	0.1946	H2	Hydrogen	
IC5	Isopentane	0.060	0.0217	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.069	0.0250	Ar	Argon	
C6	Hexanes	0.006	0.0000	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					

Totals 100.000% 7.407 GPM

Sample Date:
Sample Type: Composite
Sample Tech: ES
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 25

WBI Energy Transmission, Inc.

GQ Source Daily Summary

June 2014

Number: 163 **Pressure Base:** 14.730 **Contract Day:** 1

Name: NORTH TIOGA TRANSFER-PALERMO BORDER LI **Temperature Base:** **Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6634	1092.9	1112.2	0.431	3.716	79.429	14.756	1.513	0.045	0.095	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1365.48	
2	0.6692	1102.2	1121.7	0.468	3.633	78.555	15.470	1.684	0.052	0.116	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1371.24	
3	0.6689	1103.3	1122.8	0.434	3.588	78.567	15.562	1.670	0.049	0.107	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1372.80	
4	0.6791	1118.9	1138.7	0.405	3.625	78.826	13.672	2.722	0.173	0.460	0.052	0.066	0.000	0.000	0.000	0.000	0.000	1381.70	
5	0.6551	1080.3	1099.4	0.417	3.723	81.129	13.082	1.473	0.048	0.107	0.009	0.011	0.000	0.000	0.000	0.000	0.000	1358.28	
6	0.6086	1011.6	1029.5	0.064	4.072	88.891	6.535	0.393	0.013	0.027	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1319.58	
7	0.6121	1013.2	1031.1	0.107	4.240	88.294	6.811	0.506	0.013	0.025	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1317.95	
8	0.6131	1014.2	1032.1	0.117	4.254	88.145	6.905	0.529	0.014	0.029	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1318.22	
9	0.6104	1009.7	1027.6	0.101	4.299	88.634	6.422	0.497	0.014	0.028	0.002	0.003	0.000	0.000	0.000	0.000	0.000	1315.27	
10	0.6523	1073.5	1092.5	0.378	3.925	81.660	12.395	1.452	0.052	0.117	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1352.75	
11	0.6553	1078.0	1097.1	0.402	3.895	81.116	12.918	1.472	0.053	0.120	0.011	0.014	0.000	0.000	0.000	0.000	0.000	1355.35	
12	0.6301	1039.3	1057.7	0.238	4.147	85.340	9.217	0.944	0.031	0.069	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1332.38	
13	0.6552	1077.2	1096.3	0.418	3.913	81.279	12.601	1.572	0.058	0.132	0.012	0.015	0.000	0.000	0.000	0.000	0.000	1354.35	
14	0.6563	1079.5	1098.6	0.424	3.864	81.227	12.583	1.661	0.063	0.145	0.014	0.018	0.000	0.000	0.000	0.000	0.000	1356.17	
15	0.6661	1094.9	1114.3	0.471	3.778	79.433	14.260	1.820	0.064	0.144	0.013	0.016	0.000	0.000	0.000	0.000	0.000	1365.19	
16	0.7100	1162.6	1183.2	0.790	3.299	72.067	20.644	2.856	0.096	0.212	0.017	0.020	0.000	0.000	0.000	0.000	0.000	1404.16	
17	0.6609	1086.9	1106.2	0.418	3.856	80.431	13.277	1.750	0.070	0.163	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1360.53	
18	0.6609	1088.8	1108.1	0.413	3.748	80.215	13.769	1.641	0.058	0.129	0.012	0.015	0.000	0.000	0.000	0.000	0.000	1363.03	
19	0.6575	1085.2	1104.4	0.388	3.688	80.609	13.662	1.488	0.046	0.101	0.008	0.010	0.000	0.000	0.000	0.000	0.000	1362.02	
20	0.6884	1137.4	1157.6	0.403	3.395	74.547	19.877	1.562	0.057	0.131	0.012	0.015	0.000	0.000	0.000	0.000	0.000	1395.11	
21	0.6960	1150.5	1170.9	0.393	3.331	72.973	21.538	1.555	0.055	0.129	0.012	0.015	0.000	0.000	0.000	0.000	0.000	1403.47	
22	0.6961	1154.1	1174.5	0.312	3.245	72.616	22.319	1.307	0.052	0.123	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1407.77	
23	0.6948	1155.4	1175.8	0.261	3.123	72.378	23.121	0.993	0.033	0.075	0.007	0.009	0.000	0.000	0.000	0.000	0.000	1410.67	
24	0.6983	1159.2	1179.8	0.251	3.231	72.156	22.871	1.255	0.057	0.142	0.016	0.020	0.000	0.000	0.000	0.000	0.000	1411.80	
25	0.6922	1152.7	1173.2	0.149	3.209	72.529	23.229	0.776	0.028	0.065	0.006	0.008	0.000	0.000	0.000	0.000	0.000	1410.11	
26	0.6941	1154.2	1174.6	0.168	3.271	72.275	23.322	0.830	0.034	0.081	0.009	0.011	0.000	0.000	0.000	0.000	0.000	1409.95	
27	0.6899	1147.0	1167.4	0.149	3.346	72.909	22.759	0.740	0.026	0.059	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1405.41	
28	0.6629	1096.2	1115.7	0.293	3.672	79.253	15.308	1.294	0.048	0.110	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1370.13	
29	0.6558	1082.1	1101.3	0.357	3.769	81.016	13.165	1.478	0.056	0.130	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1359.87	
30	0.6504	1073.9	1092.9	0.345	3.782	81.597	12.986	1.170	0.033	0.072	0.007	0.008	0.000	0.000	0.000	0.000	0.000	1355.15	
Avg	0.6634	1096.0	1115.2	0.332	3.688	79.270	15.168	1.353	0.050	0.115	0.011	0.013	0.000	0.000	0.000	0.000	0.000	1368.86	

Zone 261

WBI Energy Transmission, Inc.

GQ Source Daily Summary

June 2014

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

Name: MINOT BRDR-PALERMO BRDR-BISMARCK STATI **Temperature Base:** **Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7168	1156.1	1176.6	0.522	4.727	71.190	19.407	3.765	0.117	0.248	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1389.73	
2	0.7168	1155.4	1175.9	0.533	4.762	70.678	20.323	3.372	0.098	0.214	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1388.87	
3	0.7093	1141.5	1161.7	0.583	4.832	72.095	18.914	3.262	0.092	0.203	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1379.34	
4	0.7100	1142.5	1162.8	0.619	4.780	72.029	18.969	3.284	0.093	0.206	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1379.93	
5	0.7116	1145.4	1165.7	0.616	4.758	71.773	19.185	3.345	0.094	0.208	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1381.85	
6	0.7150	1150.7	1171.0	0.592	4.786	71.751	18.695	3.701	0.129	0.303	0.020	0.023	0.000	0.000	0.000	0.000	0.000	1384.91	
7	0.7100	1141.3	1161.5	0.605	4.873	72.422	18.235	3.445	0.112	0.266	0.019	0.024	0.000	0.000	0.000	0.000	0.000	1378.41	
8	0.7014	1128.2	1148.2	0.533	4.972	73.650	17.284	3.231	0.094	0.213	0.010	0.012	0.000	0.000	0.000	0.000	0.000	1370.93	
9	0.6793	1096.1	1115.5	0.409	5.042	77.301	14.323	2.678	0.073	0.163	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1353.42	
10	0.6811	1098.0	1117.5	0.427	5.064	76.977	14.581	2.699	0.074	0.164	0.006	0.006	0.000	0.000	0.000	0.000	0.000	1354.06	
11	0.6799	1095.7	1115.1	0.422	5.101	77.206	14.332	2.686	0.074	0.165	0.006	0.007	0.000	0.000	0.000	0.000	0.000	1352.35	
12	0.7012	1126.8	1146.8	0.562	4.968	73.684	17.274	3.180	0.095	0.210	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1369.50	
13	0.7074	1135.7	1155.8	0.598	4.979	72.662	18.065	3.344	0.100	0.226	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1374.21	
14	0.6961	1119.7	1139.6	0.528	4.997	74.566	16.488	3.108	0.090	0.203	0.009	0.011	0.000	0.000	0.000	0.000	0.000	1365.85	
15	0.7001	1125.7	1145.7	0.563	4.957	73.931	17.006	3.208	0.095	0.216	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1369.20	
16	0.7044	1132.2	1152.2	0.601	4.906	73.280	17.515	3.342	0.100	0.228	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1372.88	
17	0.7044	1132.4	1152.4	0.597	4.899	73.299	17.497	3.351	0.102	0.229	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1373.13	
18	0.7177	1153.1	1173.5	0.678	4.762	70.962	19.642	3.571	0.109	0.245	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1385.24	
19	0.7317	1174.1	1194.9	0.789	4.638	68.680	21.514	3.954	0.122	0.271	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1396.81	
20	0.7127	1144.4	1164.6	0.630	4.903	71.901	18.625	3.545	0.112	0.253	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1379.51	
21	0.7082	1138.2	1158.4	0.600	4.897	72.563	18.193	3.391	0.102	0.228	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1376.49	
22	0.7081	1137.9	1158.1	0.599	4.910	72.538	18.222	3.388	0.098	0.221	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1376.21	
23	0.7188	1156.3	1176.8	0.601	4.797	70.427	20.405	3.410	0.102	0.231	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1387.96	
24	0.7290	1173.2	1194.0	0.599	4.728	68.422	22.422	3.461	0.104	0.236	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1398.38	
25	0.7342	1175.8	1196.6	0.622	5.021	67.680	22.541	3.742	0.112	0.254	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1396.52	
26	0.7335	1175.1	1195.9	0.602	5.029	67.541	22.916	3.550	0.104	0.234	0.011	0.012	0.000	0.000	0.000	0.000	0.000	1396.35	
27	0.7349	1176.7	1197.5	0.611	5.046	67.475	22.801	3.659	0.114	0.263	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1396.95	
28	0.7369	1178.3	1199.1	0.606	5.145	67.127	22.977	3.738	0.114	0.261	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1396.94	
29	0.7363	1177.5	1198.3	0.597	5.152	67.163	22.987	3.716	0.110	0.249	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1396.54	
30	0.7321	1172.8	1193.6	0.571	5.080	67.787	22.659	3.539	0.104	0.235	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1395.04	
Avg	0.7126	1145.0	1165.5	0.581	4.917	71.625	19.133	3.389	0.101	0.228	0.012	0.014	0.000	0.000	0.000	0.000	0.000	1380.58	

Zone 262

GQ Source Analysis

GQ Source Number:	2501030	**Specific Gravity:**	0.6433
GQ Source Name:	LIGNITE PLANT	**Dry Heat Value:**	1077.96
Effective Date:	6/1/2014 9:00:00 AM	**Wet Heat Value:**	1059.20
Effective End Date	1/18/2038 9:14:00 PM	**As Deliv. Heat Value:**	1077.96
Pressure Base:	14.730	**Sample Pressure:**	452.00
Viscosity:		**Sample Temperature:**	0.00

		Mol %	Liquid Content			Mol %
C1	Methane	81.865		CO2	Carbon Dioxide	0.083
C2	Ethane	12.941	3.4508	N2	Nitrogen	4.374
C3	Propane	0.711	0.1955	O2	Oxygen	0.009
IC4	Isobutane	0.014	0.0045	He	Helium	
NC4	n-Butane	0.000	0.0000	H2	Hydrogen	
IC5	Isopentane	0.000	0.0000	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.000	0.0000	Ar	Argon	
C6	Hexanes	0.000	0.0000	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	
C9	Nonanes					
C10	Decanes					

Totals 99.998% 3.651 GPM

Sample Date:
Sample Type: Composite
Sample Tech: ES
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 263

*** End of Report ***

WBI Energy Transmission, Inc.

GQ Source Daily Summary

June 2014

Number: 043 **Pressure Base:** 14.730 **Contract Day:** 1

Name: BISMARCK STATION-CLEVELAND STATION **Temperature Base:** **Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7071	1138.3	1158.5	0.565	4.847	72.584	18.412	3.264	0.092	0.207	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1377.63	
2	0.7084	1140.7	1160.9	0.602	4.765	72.345	18.715	3.246	0.091	0.207	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1379.29	
3	0.7122	1146.7	1167.1	0.612	4.741	71.705	19.255	3.356	0.094	0.210	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1382.85	
4	0.7109	1144.7	1165.0	0.590	4.767	72.167	18.639	3.459	0.104	0.240	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1381.73	
5	0.7146	1149.6	1170.0	0.589	4.816	72.214	18.031	3.761	0.146	0.370	0.032	0.041	0.000	0.000	0.000	0.000	0.000	1383.98	
6	0.7070	1136.3	1156.4	0.586	4.921	72.776	18.002	3.368	0.097	0.221	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1375.37	
7	0.6782	1094.4	1113.7	0.403	5.051	77.529	14.107	2.661	0.071	0.159	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1352.39	
8	0.6799	1096.4	1115.8	0.426	5.046	77.227	14.376	2.673	0.072	0.161	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1353.31	
9	0.6782	1093.2	1112.6	0.419	5.099	77.552	14.009	2.665	0.073	0.163	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1350.97	
10	0.6820	1098.3	1117.7	0.442	5.115	76.908	14.511	2.758	0.075	0.170	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1353.39	
11	0.7054	1133.8	1153.9	0.582	4.933	73.023	17.820	3.289	0.098	0.224	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1373.84	
12	0.7028	1129.7	1149.7	0.673	4.798	73.490	17.498	3.256	0.080	0.185	0.009	0.012	0.000	0.000	0.000	0.000	0.000	1371.44	
13	0.6926	1114.7	1134.5	0.512	5.000	75.195	15.959	3.022	0.087	0.198	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1363.15	
14	0.7046	1132.7	1152.8	0.594	4.899	73.321	17.459	3.358	0.101	0.235	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1373.37	
15	0.7044	1132.8	1152.9	0.596	4.875	73.395	17.389	3.370	0.103	0.238	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1373.65	
16	0.7142	1148.1	1168.5	0.653	4.775	71.655	19.000	3.527	0.108	0.247	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1382.59	
17	0.7326	1176.4	1197.2	0.778	4.594	68.636	21.544	3.998	0.125	0.285	0.019	0.021	0.000	0.000	0.000	0.000	0.000	1398.73	
18	0.7047	1132.3	1152.3	0.575	4.965	73.290	17.434	3.361	0.103	0.238	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1372.73	
19	0.7077	1137.8	1157.9	0.600	4.878	72.734	18.014	3.408	0.101	0.232	0.015	0.018	0.000	0.000	0.000	0.000	0.000	1376.43	
20	0.7091	1140.6	1160.8	0.590	4.849	72.328	18.540	3.351	0.096	0.219	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1378.56	
21	0.7258	1168.2	1188.9	0.600	4.731	69.141	21.689	3.456	0.105	0.243	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1395.47	
22	0.7281	1172.2	1192.9	0.596	4.704	68.679	22.180	3.461	0.104	0.241	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1398.08	
23	0.7348	1176.8	1197.6	0.618	5.021	67.646	22.526	3.782	0.113	0.260	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1397.16	
24	0.7326	1174.6	1195.4	0.598	4.984	67.711	22.835	3.502	0.103	0.236	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1396.58	
25	0.7366	1178.3	1199.1	0.613	5.105	67.343	22.711	3.789	0.119	0.279	0.019	0.021	0.000	0.000	0.000	0.000	0.000	1397.21	
26	0.7356	1177.3	1198.1	0.587	5.117	67.302	22.912	3.694	0.108	0.248	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1396.93	
27	0.7358	1177.0	1197.9	0.594	5.141	67.306	22.842	3.719	0.110	0.254	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1396.43	
28	0.7322	1173.5	1194.3	0.565	5.064	67.760	22.719	3.524	0.103	0.236	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1395.70	
29	0.7109	1142.6	1162.8	0.567	4.941	72.021	18.709	3.383	0.105	0.242	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1379.07	
30	0.7091	1139.1	1159.3	0.583	4.952	72.482	18.160	3.445	0.104	0.240	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1376.72	
Avg	0.7113	1143.0	1163.5	0.577	4.916	71.915	18.867	3.364	0.100	0.230	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1379.49	

Zone 271

WBI Energy Transmission, Inc.

GQ Source Daily Summary

June 2014

Number: 063 **Pressure Base:** 14.730 **Contract Day:** 1

Name: CLEVELAND STATION-MAPLETON **Temperature Base:** **Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7111	1145.6	1165.9	0.546	4.806	71.633	19.531	3.168	0.090	0.201	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1382.53	
2	0.7091	1141.2	1161.4	0.593	4.815	72.183	18.823	3.265	0.092	0.203	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1379.18	
3	0.7073	1139.1	1159.2	0.597	4.771	72.561	18.492	3.254	0.091	0.205	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1378.35	
4	0.7137	1148.7	1169.1	0.606	4.765	71.455	19.425	3.413	0.095	0.212	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1383.84	
5	0.7150	1151.3	1171.7	0.572	4.780	72.214	17.941	3.883	0.157	0.389	0.030	0.034	0.000	0.000	0.000	0.000	0.000	1385.57	
6	0.7059	1134.6	1154.7	0.607	4.892	72.917	18.012	3.236	0.090	0.204	0.018	0.024	0.000	0.000	0.000	0.000	0.000	1374.34	
7	0.6927	1115.6	1135.3	0.480	5.003	75.162	16.008	3.033	0.088	0.200	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1364.06	
8	0.6779	1093.5	1112.8	0.414	5.058	77.568	14.083	2.633	0.071	0.156	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1351.63	
9	0.6781	1093.3	1112.7	0.422	5.081	77.526	14.091	2.630	0.072	0.160	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1351.16	
10	0.6781	1092.9	1112.2	0.420	5.111	77.560	13.987	2.668	0.073	0.162	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1350.63	
11	0.6955	1118.1	1137.9	0.530	5.040	74.663	16.390	3.064	0.088	0.199	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1364.36	
12	0.7059	1133.7	1153.8	0.589	4.968	72.976	17.785	3.323	0.100	0.227	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1373.33	
13	0.6953	1118.7	1138.5	0.526	4.989	74.753	16.318	3.095	0.090	0.203	0.013	0.013	0.000	0.000	0.000	0.000	0.000	1365.32	
14	0.7003	1126.1	1146.1	0.566	4.943	73.986	16.924	3.231	0.097	0.222	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1369.53	
15	0.7033	1131.0	1151.0	0.596	4.885	73.538	17.290	3.326	0.101	0.230	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1372.46	
16	0.7039	1131.5	1151.6	0.591	4.911	73.415	17.378	3.344	0.101	0.229	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1372.61	
17	0.7274	1168.5	1189.2	0.749	4.629	69.343	21.110	3.760	0.114	0.257	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1394.31	
18	0.7193	1154.8	1175.3	0.674	4.820	70.873	19.497	3.709	0.117	0.269	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1385.62	
19	0.7045	1132.7	1152.7	0.581	4.914	73.251	17.572	3.326	0.099	0.225	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1373.39	
20	0.7081	1137.9	1158.1	0.600	4.908	72.619	18.111	3.403	0.100	0.227	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1376.20	
21	0.7181	1155.3	1175.8	0.598	4.794	70.613	20.220	3.405	0.102	0.234	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1387.44	
22	0.7287	1173.1	1193.9	0.593	4.709	68.471	22.434	3.430	0.102	0.231	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1398.63	
23	0.7312	1173.6	1194.4	0.624	4.867	68.247	22.238	3.627	0.110	0.251	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1396.82	
24	0.7335	1175.1	1195.9	0.599	5.034	67.647	22.730	3.615	0.105	0.239	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1396.37	
25	0.7341	1175.7	1196.5	0.611	5.037	67.670	22.607	3.658	0.114	0.264	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1396.49	
26	0.7355	1176.5	1197.3	0.594	5.143	67.305	22.895	3.675	0.108	0.246	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1396.13	
27	0.7359	1177.1	1197.9	0.597	5.144	67.269	22.882	3.710	0.110	0.252	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1396.39	
28	0.7360	1176.5	1197.4	0.596	5.182	67.248	22.864	3.722	0.109	0.247	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1395.71	
29	0.7209	1158.3	1178.8	0.549	4.949	69.817	21.039	3.296	0.099	0.222	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1388.32	
30	0.7088	1138.8	1158.9	0.578	4.956	72.532	18.111	3.434	0.107	0.245	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1376.53	
Avg	0.7112	1143.0	1163.2	0.573	4.930	71.901	18.893	3.345	0.100	0.227	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1379.24	

Zone 272

WBI Energy Transmission, Inc.

GQ Source Daily Summary

June 2014

Number: 061 **Pressure Base:** 14.730 **Contract Day:** 1

Name: CLEVELAND STATION-GRAFTON BORDER **Temperature Base:** **Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7113	1145.9	1166.1	0.546	4.808	71.589	19.574	3.167	0.089	0.200	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1382.67	
2	0.7094	1141.6	1161.8	0.595	4.814	72.131	18.872	3.269	0.092	0.203	0.012	0.013	0.000	0.000	0.000	0.000	0.000	1379.42	
3	0.7072	1138.8	1159.0	0.597	4.774	72.587	18.469	3.249	0.091	0.205	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1378.17	
4	0.7137	1148.7	1169.0	0.607	4.764	71.450	19.440	3.402	0.095	0.213	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1383.81	
5	0.7153	1151.7	1172.1	0.575	4.776	72.156	18.004	3.884	0.157	0.385	0.029	0.033	0.000	0.000	0.000	0.000	0.000	1385.79	
6	0.7063	1135.3	1155.4	0.606	4.885	72.867	18.052	3.240	0.092	0.214	0.020	0.025	0.000	0.000	0.000	0.000	0.000	1374.84	
7	0.6935	1116.7	1136.5	0.485	4.999	75.023	16.129	3.050	0.088	0.200	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1364.71	
8	0.6778	1093.4	1112.8	0.415	5.056	77.575	14.075	2.635	0.071	0.156	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1351.62	
9	0.6782	1093.3	1112.6	0.422	5.086	77.519	14.092	2.630	0.072	0.160	0.009	0.010	0.000	0.000	0.000	0.000	0.000	1351.09	
10	0.6782	1092.9	1112.3	0.421	5.108	77.557	13.994	2.666	0.073	0.162	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1350.68	
11	0.6952	1117.5	1137.3	0.528	5.046	74.712	16.350	3.053	0.088	0.198	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1364.02	
12	0.7062	1134.2	1154.3	0.590	4.966	72.917	17.845	3.323	0.100	0.227	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1373.62	
13	0.6953	1118.6	1138.4	0.527	4.991	74.756	16.313	3.095	0.090	0.203	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1365.25	
14	0.7002	1126.0	1145.9	0.565	4.943	73.998	16.917	3.227	0.097	0.221	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1369.44	
15	0.7033	1130.9	1151.0	0.597	4.890	73.534	17.287	3.329	0.100	0.230	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1372.39	
16	0.7039	1131.6	1151.7	0.591	4.910	73.413	17.375	3.348	0.101	0.229	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1372.67	
17	0.7268	1167.4	1188.1	0.750	4.639	69.457	20.988	3.758	0.113	0.257	0.018	0.020	0.000	0.000	0.000	0.000	0.000	1393.58	
18	0.7189	1154.1	1174.5	0.677	4.823	70.969	19.386	3.717	0.118	0.270	0.019	0.022	0.000	0.000	0.000	0.000	0.000	1385.13	
19	0.7044	1132.5	1152.6	0.581	4.918	73.263	17.555	3.329	0.100	0.225	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1373.28	
20	0.7080	1137.8	1158.0	0.601	4.907	72.637	18.094	3.403	0.100	0.226	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1376.13	
21	0.7177	1154.6	1175.0	0.598	4.795	70.712	20.115	3.407	0.103	0.235	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1387.02	
22	0.7283	1172.5	1193.3	0.593	4.713	68.543	22.356	3.431	0.102	0.231	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1398.25	
23	0.7307	1172.9	1193.7	0.622	4.869	68.325	22.171	3.617	0.110	0.251	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1396.43	
24	0.7334	1174.9	1195.7	0.599	5.038	67.678	22.690	3.618	0.106	0.240	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1396.20	
25	0.7345	1176.4	1197.2	0.611	5.032	67.593	22.686	3.660	0.114	0.264	0.019	0.021	0.000	0.000	0.000	0.000	0.000	1396.91	
26	0.7356	1176.7	1197.5	0.595	5.146	67.280	22.912	3.681	0.108	0.246	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1396.19	
27	0.7359	1177.1	1197.9	0.597	5.140	67.274	22.883	3.710	0.110	0.252	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1396.45	
28	0.7356	1176.0	1196.8	0.596	5.186	67.312	22.796	3.722	0.109	0.247	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1395.35	
29	0.7216	1159.5	1180.0	0.550	4.946	69.670	21.182	3.302	0.099	0.222	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1389.04	
30	0.7086	1138.4	1158.6	0.579	4.957	72.570	18.077	3.429	0.107	0.245	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1376.31	
Avg	0.7112	1143.0	1163.2	0.574	4.931	71.902	18.889	3.345	0.100	0.227	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1379.22	

Zone 273

WBI Energy Transmission, Inc.

GQ Source Daily Summary

June 2014

Number: 041 **Pressure Base:** 14.730 **Contract Day:** 1

Name: BISMARCK STATION-GLEN ULLIN STATION **Temperature Base:** **Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.7073	1138.6	1158.7	0.565	4.846	72.557	18.439	3.266	0.092	0.207	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1377.79	
2	0.7086	1140.9	1161.1	0.601	4.769	72.325	18.727	3.253	0.091	0.207	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1379.36	
3	0.7118	1145.9	1166.2	0.613	4.747	71.790	19.172	3.348	0.094	0.210	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1382.32	
4	0.7109	1144.9	1165.2	0.591	4.762	72.123	18.714	3.440	0.102	0.236	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1381.85	
5	0.7146	1149.7	1170.0	0.588	4.817	72.231	17.992	3.779	0.148	0.371	0.032	0.042	0.000	0.000	0.000	0.000	0.000	1384.04	
6	0.7068	1136.0	1156.1	0.588	4.920	72.821	17.948	3.377	0.097	0.219	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1375.13	
7	0.6789	1095.6	1115.0	0.404	5.046	77.391	14.236	2.673	0.072	0.161	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1353.15	
8	0.6797	1096.1	1115.5	0.426	5.049	77.260	14.346	2.667	0.072	0.161	0.009	0.009	0.000	0.000	0.000	0.000	0.000	1353.08	
9	0.6783	1093.3	1112.7	0.419	5.097	77.544	14.019	2.664	0.073	0.164	0.010	0.010	0.000	0.000	0.000	0.000	0.000	1351.05	
10	0.6815	1097.3	1116.8	0.438	5.125	77.001	14.423	2.748	0.075	0.169	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1352.81	
11	0.7054	1133.8	1153.8	0.582	4.939	73.016	17.821	3.290	0.098	0.224	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1373.75	
12	0.7035	1129.3	1149.3	0.733	4.800	73.387	17.541	3.257	0.079	0.180	0.010	0.011	0.000	0.000	0.000	0.000	0.000	1370.24	
13	0.6924	1114.4	1134.1	0.510	5.000	75.231	15.932	3.016	0.086	0.198	0.013	0.014	0.000	0.000	0.000	0.000	0.000	1362.98	
14	0.7045	1132.6	1152.7	0.593	4.904	73.325	17.448	3.360	0.101	0.234	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1373.26	
15	0.7042	1132.6	1152.6	0.593	4.875	73.425	17.367	3.362	0.103	0.239	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1373.54	
16	0.7136	1147.3	1167.7	0.649	4.778	71.740	18.935	3.510	0.107	0.245	0.017	0.019	0.000	0.000	0.000	0.000	0.000	1382.18	
17	0.7325	1176.0	1196.8	0.783	4.596	68.672	21.499	4.003	0.124	0.283	0.018	0.021	0.000	0.000	0.000	0.000	0.000	1398.40	
18	0.7048	1132.5	1152.5	0.575	4.963	73.278	17.446	3.362	0.103	0.239	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1372.86	
19	0.7079	1138.0	1158.2	0.600	4.877	72.707	18.039	3.410	0.102	0.233	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1376.59	
20	0.7088	1140.0	1160.2	0.590	4.863	72.378	18.474	3.352	0.096	0.219	0.013	0.015	0.000	0.000	0.000	0.000	0.000	1378.06	
21	0.7256	1167.9	1188.5	0.599	4.731	69.193	21.632	3.458	0.106	0.245	0.016	0.019	0.000	0.000	0.000	0.000	0.000	1395.28	
22	0.7281	1172.2	1193.0	0.596	4.702	68.676	22.186	3.461	0.104	0.241	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1398.12	
23	0.7347	1176.7	1197.5	0.619	5.015	67.678	22.494	3.785	0.113	0.261	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1397.14	
24	0.7328	1175.0	1195.8	0.597	4.980	67.662	22.896	3.497	0.103	0.236	0.014	0.016	0.000	0.000	0.000	0.000	0.000	1396.91	
25	0.7362	1177.8	1198.6	0.613	5.103	67.404	22.665	3.777	0.118	0.278	0.019	0.021	0.000	0.000	0.000	0.000	0.000	1396.93	
26	0.7354	1177.0	1197.8	0.588	5.115	67.341	22.875	3.693	0.108	0.248	0.015	0.016	0.000	0.000	0.000	0.000	0.000	1396.78	
27	0.7358	1177.0	1197.8	0.594	5.147	67.306	22.836	3.719	0.110	0.254	0.016	0.017	0.000	0.000	0.000	0.000	0.000	1396.35	
28	0.7326	1173.9	1194.7	0.566	5.071	67.707	22.753	3.534	0.104	0.237	0.014	0.015	0.000	0.000	0.000	0.000	0.000	1395.81	
29	0.7111	1142.8	1163.0	0.566	4.942	71.987	18.751	3.376	0.105	0.241	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1379.19	
30	0.7093	1139.4	1159.6	0.583	4.949	72.455	18.180	3.452	0.105	0.241	0.016	0.018	0.000	0.000	0.000	0.000	0.000	1376.92	
Avg	0.7113	1143.0	1163.4	0.579	4.918	71.920	18.860	3.363	0.100	0.229	0.015	0.017	0.000	0.000	0.000	0.000	0.000	1379.40	

Zone 28

WBI Energy Transmission, Inc.

GQ Source Daily Summary

June 2014

Number: 271 **Pressure Base:** 14.730 **Contract Day:** 1

Name: DICKINSON STN-BELFIELD TSF-GLENULLIN STN **Temperature Base:** **Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6858	1157.2	1177.7	0.000	2.566	73.535	23.153	0.729	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.13	
2	0.6863	1157.9	1178.4	0.000	2.569	73.446	23.233	0.735	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.48	
3	0.6840	1151.0	1171.4	0.017	2.751	74.033	22.307	0.865	0.011	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.34	
4	0.6815	1142.8	1163.1	0.036	2.984	74.759	21.111	1.072	0.016	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1408.84	
5	0.6834	1146.9	1167.2	0.029	2.921	74.421	21.484	1.107	0.016	0.023	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1411.95	
6	0.6834	1148.5	1168.9	0.022	2.833	74.226	21.966	0.924	0.012	0.017	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1413.94	
7	0.6850	1155.2	1175.7	0.003	2.610	73.686	22.959	0.724	0.008	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.48	
8	0.6844	1155.0	1175.5	0.000	2.573	73.733	23.024	0.655	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.84	
9	0.6841	1154.3	1174.7	0.000	2.586	73.789	22.963	0.647	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.29	
10	0.6838	1154.1	1174.5	0.000	2.572	73.835	22.943	0.635	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.34	
11	0.6837	1154.0	1174.4	0.000	2.568	73.844	22.957	0.615	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.30	
12	0.6839	1154.1	1174.6	0.000	2.577	73.814	22.967	0.627	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.30	
13	0.6831	1150.4	1170.7	0.011	2.708	74.111	22.400	0.747	0.010	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.55	
14	0.6816	1142.9	1163.1	0.037	2.986	74.697	21.213	1.029	0.015	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1408.84	
15	0.6813	1139.9	1160.1	0.058	3.102	74.910	20.734	1.153	0.018	0.025	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1405.52	
16	0.6769	1127.0	1147.0	0.080	3.438	76.036	19.011	1.375	0.024	0.036	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1394.12	
17	0.6715	1116.0	1135.8	0.073	3.616	77.304	17.367	1.572	0.028	0.040	0.001	0.000	0.000	0.000	0.000	0.000	0.000	1385.95	
18	0.6753	1127.9	1147.9	0.036	3.307	76.222	19.100	1.284	0.021	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1396.79	
19	0.6847	1151.9	1172.3	0.012	2.764	74.056	22.130	1.000	0.014	0.022	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.72	
20	0.6859	1155.9	1176.4	0.008	2.639	73.695	22.738	0.895	0.010	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.46	
21	0.6855	1156.8	1177.3	0.000	2.563	73.585	23.114	0.721	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.97	
22	0.6854	1156.8	1177.3	0.000	2.557	73.593	23.119	0.714	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.00	
23	0.6847	1155.3	1175.7	0.000	2.581	73.697	23.033	0.673	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1420.89	
24	0.6861	1157.4	1177.9	0.000	2.581	73.463	23.230	0.703	0.008	0.014	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1422.07	
25	0.6847	1155.5	1175.9	0.000	2.573	73.665	23.102	0.645	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.09	
26	0.6847	1155.8	1176.3	0.000	2.546	73.691	23.089	0.658	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.60	
27	0.6846	1155.6	1176.0	0.000	2.549	73.775	22.957	0.691	0.007	0.020	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.39	
28	0.6846	1155.8	1176.2	0.000	2.543	73.686	23.118	0.639	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1421.60	
29	0.6857	1157.4	1177.9	0.000	2.542	73.493	23.286	0.664	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.54	
30	0.6858	1157.9	1178.4	0.000	2.527	73.500	23.268	0.689	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.94	
Avg	0.6834	1150.0	1170.6	0.014	2.741	74.143	22.236	0.840	0.011	0.015	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1416.04	

Zone 31

GQ Source Analysis

GQ Source Number:	0202080	**Specific Gravity:**	0.6666
GQ Source Name:	RICHARDTON-GLEN ULLIN COMPRE	**Dry Heat Value:**	1137.69
Effective Date:	6/1/2014 9:00:00 AM	**Wet Heat Value:**	1117.89
Effective End Date	1/18/2038 9:14:00 PM	**As Deliv. Heat Value:**	1137.69
Pressure Base:	14.730	**Sample Pressure:**	336.00
Viscosity:		**Sample Temperature:**	0.00

		Mol %	Liquid Content			Mol %
C1	Methane	78.626		CO2	Carbon Dioxide	0.620
C2	Ethane	17.615	4.6970	N2	Nitrogen	2.206
C3	Propane	0.734	0.2020	O2	Oxygen	
IC4	Isobutane	0.060	0.0200	He	Helium	
NC4	n-Butane	0.049	0.0150	H2	Hydrogen	
IC5	Isopentane	0.027	0.0100	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.013	0.0050	Ar	Argon	
C6	Hexanes	0.047	0.0190	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	0.002
C9	Nonanes					
C10	Decanes					

Totals 99.999% 4.968 GPM

Sample Date: 5/1/2014 10:29:00 AM
Sample Type: Composite
Sample Tech: RR
H2S: ppm

Sample Remarks:

Analysis Tech: MB

Analysis Remarks:

Zone 31l

WBI Energy Transmission, Inc.

GQ Source Daily Summary

June 2014

Number: 051 **Pressure Base:** 14.730 **Contract Day:** 1

Name: CABIN CREEK STATION-BELFIELD TRANSFER **Temperature Base:** **Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6687	1103.0	1122.5	0.154	4.021	78.290	15.525	1.922	0.034	0.051	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1372.65	
2	0.6727	1109.4	1129.1	0.138	4.023	77.575	16.153	2.011	0.037	0.058	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1376.62	
3	0.6779	1117.3	1137.1	0.137	4.032	76.658	16.913	2.160	0.038	0.058	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1381.10	
4	0.6744	1113.4	1133.1	0.098	4.005	77.080	16.790	1.952	0.030	0.042	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1379.77	
5	0.6744	1112.3	1132.0	0.099	4.070	77.128	16.616	2.005	0.032	0.047	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1378.45	
6	0.6747	1112.7	1132.4	0.128	4.030	77.076	16.716	1.958	0.034	0.053	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1378.63	
7	0.6748	1113.1	1132.8	0.112	4.040	77.060	16.713	1.987	0.033	0.050	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1378.99	
8	0.6794	1130.8	1150.9	0.060	3.472	75.563	19.393	1.459	0.021	0.029	0.001	0.001	0.000	0.000	0.000	0.000	0.000	1396.17	
9	0.6893	1162.6	1183.2	0.002	2.567	72.798	23.910	0.707	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.09	
10	0.6877	1159.3	1179.8	0.007	2.603	73.123	23.552	0.696	0.007	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1422.77	
11	0.6775	1116.8	1136.6	0.156	4.003	76.706	16.927	2.107	0.038	0.059	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1380.79	
12	0.6798	1120.1	1139.9	0.187	3.972	76.381	17.143	2.214	0.039	0.059	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1382.49	
13	0.6741	1111.1	1130.8	0.147	4.040	77.204	16.564	1.967	0.030	0.043	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1377.27	
14	0.6730	1109.9	1129.5	0.140	4.027	77.378	16.477	1.871	0.038	0.063	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1376.80	
15	0.6766	1116.4	1136.2	0.122	3.992	76.848	16.833	2.105	0.037	0.058	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1381.27	
16	0.6658	1099.6	1119.0	0.094	4.043	78.720	15.234	1.828	0.031	0.047	0.002	0.001	0.000	0.000	0.000	0.000	0.000	1371.42	
17	0.6705	1106.9	1126.5	0.112	4.009	77.853	16.052	1.883	0.033	0.051	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1375.75	
18	0.6727	1110.2	1129.9	0.140	3.975	77.453	16.435	1.906	0.035	0.052	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1377.58	
19	0.6698	1104.3	1123.8	0.155	4.041	77.935	15.983	1.805	0.031	0.046	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1373.17	
20	0.6706	1106.0	1125.5	0.136	4.040	77.784	16.129	1.833	0.031	0.045	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1374.48	
21	0.6733	1110.4	1130.0	0.158	3.990	77.476	16.274	1.998	0.038	0.060	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1377.16	
22	0.6731	1111.5	1131.1	0.115	3.976	77.443	16.379	1.991	0.037	0.055	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1378.70	
23	0.6712	1107.5	1127.1	0.140	3.996	77.762	16.105	1.903	0.035	0.053	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1375.79	
24	0.6738	1108.6	1128.3	0.246	4.013	77.562	15.984	2.072	0.044	0.072	0.004	0.003	0.000	0.000	0.000	0.000	0.000	1374.47	
25	0.6718	1108.0	1127.6	0.191	3.946	77.810	15.963	1.978	0.041	0.065	0.003	0.003	0.000	0.000	0.000	0.000	0.000	1375.76	
26	0.6694	1104.1	1123.7	0.176	3.982	78.116	15.781	1.853	0.034	0.053	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1373.39	
27	0.6724	1108.9	1128.6	0.172	3.978	77.509	16.378	1.873	0.034	0.052	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1376.28	
28	0.6728	1110.5	1130.2	0.164	3.934	77.371	16.617	1.825	0.033	0.050	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1377.76	
29	0.6741	1114.3	1134.0	0.151	3.843	77.100	17.013	1.804	0.034	0.051	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1381.15	
30	0.6720	1108.2	1127.8	0.159	3.996	77.728	16.024	1.998	0.036	0.054	0.003	0.002	0.000	0.000	0.000	0.000	0.000	1375.83	
Avg	0.6743	1114.0	1134.0	0.133	3.889	77.083	16.952	1.856	0.033	0.050	0.002	0.002	0.000	0.000	0.000	0.000	0.000	1380.92	

Zone 32

WBI Energy Transmission, Inc.

GQ Source Daily Summary

June 2014

Number: 111 **Pressure Base:** 14.730 **Contract Day:** 1

Name: LITTLE KNIFE-BELFIELD TRANSFER **Temperature Base:** **Contract Hour:** 9

Day	Relative Density	Heating Value Wet	Heating Value Dry	CO2	N2	C1	C2	C3	IC4	NC4	IC5	NC5	C6	C7	C8	C9	C10	Wobbe	CCT
1	0.6885	1161.7	1182.3	0.000	2.549	72.913	23.858	0.665	0.006	0.008	0.000	0.000	0.000	0.000				1424.82	
2	0.6885	1161.7	1182.3	0.000	2.549	72.913	23.858	0.665	0.006	0.008	0.000	0.000	0.000	0.000				1424.82	
3	0.6885	1161.7	1182.3	0.000	2.549	72.913	23.858	0.665	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.82	
4	0.6885	1161.7	1182.3	0.000	2.549	72.913	23.858	0.665	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.82	
5	0.6890	1162.4	1183.0	0.001	2.552	72.850	23.884	0.697	0.007	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.17	
6	0.6898	1163.5	1184.1	0.002	2.555	72.674	24.072	0.682	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.76	
7	0.6894	1163.0	1183.6	0.001	2.552	72.752	23.997	0.684	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.49	
8	0.6886	1161.7	1182.3	0.001	2.558	72.880	23.895	0.652	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.71	
9	0.6884	1161.4	1182.0	0.000	2.551	72.937	23.837	0.661	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.65	
10	0.6882	1161.2	1181.8	0.000	2.550	72.945	23.855	0.636	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.56	
11	0.6878	1160.6	1181.1	0.000	2.548	73.010	23.820	0.607	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.20	
12	0.6883	1161.4	1182.0	0.000	2.546	72.909	23.913	0.618	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.71	
13	0.6884	1161.2	1181.7	0.000	2.568	72.901	23.891	0.624	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.33	
14	0.6887	1161.6	1182.2	0.000	2.568	72.832	23.966	0.619	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.59	
15	0.6885	1161.4	1182.0	0.000	2.565	72.856	23.957	0.607	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.50	
16	0.6878	1160.3	1180.9	0.000	2.565	73.156	23.503	0.755	0.009	0.012	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.89	
17	0.6876	1160.1	1180.6	0.000	2.566	73.194	23.468	0.750	0.010	0.014	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1423.73	
18	0.6893	1161.9	1182.5	0.000	2.607	72.796	23.880	0.696	0.008	0.013	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1424.31	
19	0.6921	1167.2	1187.8	0.001	2.549	72.494	23.984	0.941	0.012	0.018	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.81	
20	0.6908	1165.4	1186.0	0.000	2.539	72.599	24.038	0.805	0.008	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.95	
21	0.6897	1163.8	1184.5	0.001	2.533	72.696	24.059	0.696	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.19	
22	0.6896	1163.3	1183.9	0.000	2.551	72.749	23.966	0.719	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.71	
23	0.6897	1163.5	1184.1	0.000	2.553	72.691	24.055	0.686	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.76	
24	0.6906	1164.8	1185.4	0.000	2.557	72.537	24.182	0.705	0.007	0.012	0.000	0.001	0.000	0.000	0.000	0.000	0.000	1426.48	
25	0.6888	1162.4	1183.0	0.000	2.536	72.827	23.977	0.646	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.38	
26	0.6886	1162.2	1182.8	0.000	2.529	72.886	23.907	0.662	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.33	
27	0.6891	1163.3	1183.9	0.000	2.511	72.826	23.950	0.696	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.13	
28	0.6894	1163.5	1184.1	0.000	2.522	72.726	24.083	0.655	0.006	0.008	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.14	
29	0.6899	1164.5	1185.1	0.000	2.504	72.642	24.179	0.661	0.006	0.009	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1426.90	
30	0.6905	1165.3	1185.9	0.000	2.517	72.557	24.205	0.704	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1427.18	
Avg	0.6891	1163.0	1183.2	0.000	2.548	72.819	23.932	0.684	0.007	0.010	0.000	0.000	0.000	0.000	0.000	0.000	0.000	1425.33	

Zone 33

GQ Source Analysis

GQ Source Number:	1202160	**Specific Gravity:**	0.7755
GQ Source Name:	BOWMAN BORDER	**Dry Heat Value:**	1119.13
Effective Date:	6/1/2014 9:00:00 AM	**Wet Heat Value:**	1099.65
Effective End Date	1/18/2038 9:14:07 PM	**As Deliv. Heat Value:**	1119.13
Pressure Base:	14.730	**Sample Pressure:**	
Viscosity:		**Sample Temperature:**	

		Mol %	Liquid Content			Mol %
C1	Methane	58.473		CO2	Carbon Dioxide	1.983
C2	Ethane	24.996	6.6650	N2	Nitrogen	11.497
C3	Propane	2.671	0.7340	O2	Oxygen	
IC4	Isobutane	0.080	0.0260	He	Helium	
NC4	n-Butane	0.253	0.0800	H2	Hydrogen	
IC5	Isopentane	0.011	0.0040	H2S	Hydrogen Sulfide	
NC5	n-Pentane	0.029	0.0100	Ar	Argon	
C6	Hexanes	0.005	0.0020	CO	Carbon Monoxide	
C7	Heptanes			H2	Water	
C8	Octanes			Neo-C5	Neopentane	0.000
C9	Nonanes					
C10	Decanes					

Totals 99.998% 7.521 GPM

Sample Date: 4/1/2014 1:01:00 PM
Sample Type: Composite
Sample Tech: MIKE GENTILINI
H2S: ppm

Sample Remarks:

Analysis Tech: MIKE GENTILINI

Analysis Remarks:

Zone 34

Gas Quality

| Gas Quality Download - Chromatograph |

ROW ID	LOCATION DESCRIPTION	GROSS HEATING VALUE (BTU/CF)	SPECIFIC GRAVITY	WOBBE (calc)	CRICONDENTHERM (deg F)	NITROGEN (mole percent)	CARBON DIOXIDE (mole percent)	METHANE (mole percent)	ETHANE (mole percent)	PROPANE (mole percent)	NORMAL BUTANE (mole percent)	ISO BUTANE (mole percent)	PENTANE (mole percent)	ISO PENTANE (mole percent)	NEO PENTANE (mole percent)	HEXANES PLUS (mole percent)	HYDROGEN (mole percent)	HELIUM (mole percent)	PRODUCTION DATE	POSTING DATE	Changetimestamp	NOTES
11587	GLEN ULLIN	1049.1	0.6089	1344.5	-65	1.3865	1.0774	89.8128	6.7816	0.53	0.0407	0.0293	0.0046	0.0063	0	0.0024	0.313	0.0114	5/31/2014	6/1/2014	6/1/2014 2:15:21 PM	
11587	GLEN ULLIN	1053.8	0.6117	1347.3	-66.2	1.3194	1.1142	89.4391	7.2254	0.5649	0.04	0.0283	0.0039	0.0056	0	0.0017	0.2443	0.0114	6/1/2014	6/2/2014	6/2/2014 2:15:48 PM	
11587	GLEN ULLIN	1052.2	0.6102	1346.9	-72.5	1.2865	1.1009	89.8101	7.0465	0.5156	0.0311	0.0215	0.0027	0.004	0	0.0001	0.1671	0.0114	6/2/2014	6/3/2014	6/3/2014 2:18:52 PM	
11587	GLEN ULLIN	1045.8	0.6073	1341.9	-74.6	1.3628	1.1271	90.3657	6.4323	0.4687	0.0314	0.0223	0.0029	0.0043	0	0.0007	0.1667	0.0114	6/3/2014	6/4/2014	6/4/2014 2:15:45 PM	
11587	GLEN ULLIN	1051.9	0.6097	1347.1	-66.9	1.3473	1.0453	89.8098	6.9764	0.5262	0.0372	0.0265	0.0039	0.0055	0	0.0019	0.2038	0.0114	6/4/2014	6/5/2014	6/5/2014 2:17:06 PM	
11587	GLEN ULLIN	1046.5	0.6064	1343.9	-72.3	1.3334	1.0574	90.4463	6.4118	0.479	0.031	0.022	0.0031	0.0044	0	0.0014	0.1951	0.0114	6/5/2014	6/6/2014	6/6/2014 2:16:06 PM	
11587	GLEN ULLIN	1046.6	0.6074	1342.8	-72.1	1.4048	1.075	90.2107	6.4894	0.5125	0.0324	0.0226	0.0032	0.0044	0	0.0012	0.2289	0.0114	6/6/2014	6/7/2014	6/7/2014 2:16:09 PM	
11587	GLEN ULLIN	1049	0.6098	1343.3	-72.1	1.4297	1.1132	89.7414	6.907	0.5107	0.03	0.0208	0.0028	0.0039	0	0.0009	0.2256	0.0114	6/7/2014	6/8/2014	6/8/2014 2:16:15 PM	
11587	GLEN ULLIN	1044.2	0.6058	1341.6	-77.9	1.3383	1.1074	90.5178	6.3242	0.4608	0.0179	0.0118	0.0005	0.0013	0	0	0.2048	0.0114	6/8/2014	6/9/2014	6/9/2014 2:15:23 PM	
11587	GLEN ULLIN	1043.9	0.6059	1341.1	-77.3	1.3442	1.126	90.5138	6.2939	0.4557	0.0249	0.0153	0.0017	0.0023	0	0.0001	0.1958	0.0234	6/9/2014	6/10/2014	6/10/2014 2:16:54 PM	
11587	GLEN ULLIN	1047	0.6076	1343.2	-76.2	1.3753	1.0856	90.1945	6.6472	0.469	0.0208	0.0136	0.0013	0.002	0	0	0.1755	0.0121	6/10/2014	6/11/2014	6/11/2014 2:16:11 PM	
11587	GLEN ULLIN	1047.7	0.6085	1343.1	-73	1.3668	1.1205	90.064	6.6843	0.4907	0.0281	0.0203	0.0027	0.004	0	0.0011	0.2014	0.0121	6/11/2014	6/12/2014	6/12/2014 2:16:33 PM	
11587	GLEN ULLIN	1051.4	0.6112	1344.9	-70.5	1.3949	1.127	89.4666	7.1765	0.5243	0.0295	0.0214	0.0029	0.0041	0	0.001	0.2372	0.0121	6/12/2014	6/13/2014	6/13/2014 2:17:03 PM	
11587	GLEN ULLIN	1052.4	0.6118	1345.5	-70.8	1.3921	1.1241	89.4066	7.1968	0.5853	0.0275	0.0189	0.0024	0.0033	0	0.0003	0.2268	0.0121	6/13/2014	6/14/2014	6/14/2014 2:17:43 PM	
11587	GLEN ULLIN	1048.8	0.6097	1343.2	-74.6	1.4197	1.116	89.7171	6.9849	0.4907	0.0198	0.0128	0.0006	0.0015	0	0	0.2215	0.0121	6/14/2014	6/15/2014	6/15/2014 2:16:05 PM	
11587	GLEN ULLIN	1047	0.6086	1342.1	-75.8	1.443	1.1073	89.872	6.8375	0.4665	0.0186	0.0116	0.0002	0.0009	0	0	0.2241	0.0183	6/15/2014	6/16/2014	6/16/2014 2:16:37 PM	
11587	GLEN ULLIN	1036.3	0.601	1336.8	-83	1.3937	1.0877	91.3232	5.5488	0.3729	0.0175	0.0104	0.0001	0.0005	0	0	0.2277	0.0221	6/16/2014	6/17/2014	6/17/2014 2:16:01 PM	
11587	GLEN ULLIN	1035.5	0.5978	1339.2	-85.5	1.3221	0.9713	91.9063	5.2326	0.3365	0.0155	0.0096	0.0002	0.0005	0	0	0.191	0.0221	6/17/2014	6/18/2014	6/18/2014 2:16:34 PM	
11587	GLEN ULLIN	1035.4	0.5969	1340.2	-85.9	1.315	0.9229	92.027	5.1515	0.3416	0.0165	0.0099	0.0002	0.0004	0	0	0.1975	0.0221	6/18/2014	6/19/2014	6/19/2014 2:16:57 PM	
11587	GLEN ULLIN	1036.5	0.598	1340.4	-85.5	1.3195	0.9423	91.8671	5.3493	0.3189	0.015	0.0088	0	0	0	0	0.1625	0.0221	6/19/2014	6/20/2014	6/20/2014 2:17:06 PM	
11587	GLEN ULLIN	1036.5	0.598	1340.4	-85.5	1.3195	0.9423	91.8671	5.3493	0.3189	0.015	0.0088	0	0	0	0	0.1625	0.0221	6/19/2014	6/21/2014	6/21/2014 2:18:14 PM	
11587	GLEN ULLIN	1036.5	0.598	1340.4	-85.5	1.3195	0.9423	91.8671	5.3493	0.3189	0.015	0.0088	0	0	0	0	0.1625	0.0221	6/19/2014	6/22/2014	6/22/2014 2:18:06 PM	
11587	GLEN ULLIN	1036.5	0.598	1340.4	-85.5	1.3195	0.9423	91.8671	5.3493	0.3189	0.015	0.0088	0	0	0	0	0.1625	0.0221	6/19/2014	6/23/2014	6/23/2014 2:15:29 PM	
11587	GLEN ULLIN	1054.3	0.6087	1351.3	-63.1	1.3316	0.8969	89.8631	7.0629	0.5204	0.0428	0.0306	0.0049	0.0067	0	0.0027	0.2203	0.0221	6/23/2014	6/24/2014	6/24/2014 2:16:29 PM	
11587	GLEN ULLIN	1054.3	0.6087	1351.3	-63.1	1.3316	0.8969	89.8631	7.0629	0.5204	0.0428	0.0306	0.0049	0.0067	0	0.0027	0.2203	0.0221	6/23/2014	6/25/2014	6/25/2014 2:16:38 PM	
11587	GLEN ULLIN	1053.3	0.6086	1350.2	-69.1	1.4194	0.8714	89.8001	7.0625	0.5376	0.0333	0.0233	0.0034	0.0047	0	0.0015	0.2254	0.0221	6/25/2014	6/26/2014	6/26/2014 2:17:55 PM	
11587	GLEN ULLIN	1054.7	0.6096	1350.9	-62.9	1.388	0.8991	89.7591	7.0271	0.6061	0.0431	0.0303	0.005	0.0067	0	0.0026	0.217	0.0221	6/26/2014	6/27/2014	6/27/2014 2:17:21 PM	
11587	GLEN ULLIN	1055.1	0.6099	1351	-64.1	1.3723	0.9111	89.724	7.1622	0.5438	0.0427	0.0297	0.005	0.0067	0	0.0025	0.1836	0.0221	6/27/2014	6/28/2014	6/28/2014 2:16:10 PM	
11587	GLEN ULLIN	1049.2	0.6059	1347.9	-75.1	1.3764	0.8997	90.2538	6.761	0.4231	0.0276	0.0186	0.0026	0.0037	0	0.0008	0.2163	0.0221	6/28/2014	6/29/2014	6/29/2014 2:18:09 PM	
11587	GLEN ULLIN	1044.1	0.6024	1345.2	-80.5	1.3969	0.8639	90.8334	6.2826	0.3548	0.019	0.0123	0.001	0.0017	0	0	0.2185	0.0221	6/29/2014	6/30/2014	6/30/2014 2:16:16 PM	

30 record(s) retrieved

Zone 802

NORTH DAKOTA HEATING VALUE ZONES		
ZONES	***MEASURING DEVICE***	***LOCATION***
211	Chromatograph	Sidney Area
24	Chromatograph	Williston Area
241	Monthly Sampler	Fairview Area
25	Monthly Sampler	Watford City Area
261	Chromatograph	Williston – Tioga – Minot Line
262	Chromatograph	Minot Area
263	Monthly Sampler	Tioga – Portal
264	Chromatograph	Williston – Ray
271	Chromatograph	Bismarck – Cleveland
272	Chromatograph	Cleveland – Mapleton
273	Chromatograph	Cleveland – Grafton
28	Chromatograph	Bismarck
31	Chromatograph	Dickinson
311	Monthly Sampler	Taylor Take-Off – Glen Ullin Comp
32	Chromatograph	Cabin Creek – Dickinson
33	Chromatograph	Killdeer
34	Monthly Sampler	Bowman Area
802	Chromatograph	Linton

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	JUNE 14	MAY 14	APR 14	MAR 14	FEB 14	JAN 14	DEC 13	NOV 13	OCT 13	SEPT 13	AUG 13	JULY 13	ZONE
MT/ND	211	Sidney Area	1207	1207	1212	1198	1204	1205	1208	1204	1209	1211	1206	1208	1209	211
ND	24	Williston Area	1192	1183	1180	1177	1181	1177	1201	1201	1207	1204	1199	1196	1198	24
ND	25	Watford City Area	1207	1226	1241	1221	1220	1205	1218	1191	1197	1183	1198	1193	1193	25
ND/MT	241	Fairview Area	1199	1202	1204	1194	1197	1197	1203	1197	1189	1198	1202	1203	1205	241
ND	261	Williston - Tioga - Minot Line	1169	1115	1118	1181	1187	1185	1189	1193	1166	1175	1180	1165	1172	261
ND	262	Minot Area	1191	1166	1161	1196	1201	1200	1201	1201	1192	1197	1196	1185	1191	262
ND	263	Tioga - Portal	1088	1078	1062	1074	1058	1051	1063	1061	1096	1125	1130	1130	1130	263
ND	264	Williston - Ray	1192	1183	1180	1177	1181	1177	1201	1201	1207	1204	1199	1196	1198	264
ND	271	Bismarck - Cleveland	1168	1164	1162	1192	1159	1127	1144	1145	1164	1184	1199	1187	1191	271
ND	272	Cleveland - Mapleton	1168	1163	1162	1192	1158	1127	1144	1145	1164	1184	1199	1187	1192	272
ND	273	Cleveland - Grafton	1168	1163	1162	1190	1158	1127	1144	1145	1164	1184	1199	1188	1192	273
ND	28	Bismarck - Cabin Creek	1134	1163	1155	1135	1077	1072	1081	1092	1105	1147	1199	1187	1191	28
ND	31	Dickinson Area	1105	1171	1140	1102	1079	1073	1082	1092	1107	1126	1079	1098	1112	31
ND	311	Taylor Take-Off - Glen Ullin Comp	1118	1138	1105	1091	1072	1197	1092	1092	1104	1108	1094	1135	1188	311
ND/MT	32	Cabin Creek - Dickinson	1097	1134	1100	1077	1061	1058	1070	1082	1096	1095	1115	1135	1142	32
ND	33	Killdeer	1182	1183	1183	1183	1180	1181	1182	1180	1180	1182	1183	1182	1183	33
ND	34	Bowman Area	1098	1119	1123	1030	1059	1047	1073	1082	1118	1118	1145	1127	1140	34
ND	802	Linton	1039	1047	1047	1044	1045	1039	1042	1033	1037	1037	1032	1032	1032	802

THERMAL ZONE VARIANCE DOCUMENTATION June 2014		
ZONE	***BTU VARIANCE***	***REASON***
311	33	Mix of gas in the area
31	31	Mix of gas in the area
32	34	Mix of gas in the area