

ATTORNEY AT LAW
2332 OLD HICKORY LANE
LEXINGTON KY 40515

(859) 245-1546
(859) 245-4312 (fax)

June 26, 2006

RECEIVED

JUN 27 2006

PUBLIC SERVICE
COMMISSION

Beth O'Donnell
Executive Director
Public Service Commission
211 Sower Boulevard
P. O. Box 615
Frankfort KY 40602-0615

Re: The Notice of Proposed Rate Change for Interstate Natural Gas Company,
Case No. 2006-00122

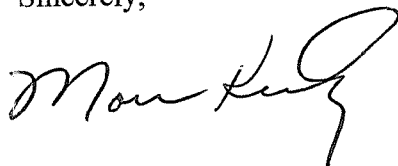
Dear Ms. O'Donnell:

Enclosed for filing in the referenced Case, please find an original and six (6) copies of the "Responses of Interstate Natural Gas Company to First Data Request of Commission Staff".

Under separate cover, Interstate is also filing with the Commission this date a Petition seeking confidential treatment of the responses to Data Requests Nos. 5.a. and 5.c. The information sought by those data requests is included in an attachment to said Petition, as required by regulation, but is not disclosed in the Responses filed here.

Should you require anything further in this regard, please contact me.

Sincerely,



Morris Kennedy

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

RECEIVED

JUN 27 2006

PUBLIC SERVICE
COMMISSION

In the Matter of:

THE NOTICE OF PROPOSED RATE
CHANGE FOR INTERSTATE NATURAL
GAS COMPANY

CASE NO. 2006-00122

RESPONSES OF INTERSTATE NATURAL GAS COMPANY
TO
FIRST DATA REQUEST OF COMMISSION STAFF

Comes Interstate Natural Gas Company ("Interstate"), by counsel, and for its Responses to the First Data Request of Commission Staff herein states as follows:

Request No. 1: Provide the number of gas wells involved in serving the 139 farm tap customers.

Response: Fifty (50) wells serve the Interstate farm tap customers.

Request No. 2: Refer to Schedule I, Well Operator Cost.

a. Explain the basis for the calculation of the base pay and the number of minutes for meter reading, call-outs and maintenance and overtime.

Response: The base pay is calculated by averaging the salaries of all employees who work with farm tap customers. The number of minutes for meter reading, call-outs and maintenance are based on Interstate's records showing time spent historically on these duties.

Overtime is based on Interstate's records for overtime spent historically on farm tap service, and includes time spent receiving the customer call, preparing materials needed to repair the problem, travel to the problem location, time spent repairing, travel back to the shop and unloading of tools and materials. An average repair will consume approximately three hours, and Interstate's records indicate these repairs are generally made after normal working hours or on weekends when the employee(s) will receive overtime pay.

b. Overtime is listed as 4.5 hours. Explain whether the estimate is per year, per customer or the total number of overtime hours for the year.

Response: The overtime amount shown on the application of (3 hours @ 150%) is the average annual amount of overtime worked per customer.

Request No. 3: Refer to Schedule 2, Administrative Personnel Cost. Explain the basis for the calculation of the base pay and the estimates of the number of hours for: the preparing, reviewing and inputting invoices; processing cash receipts and depositing in the bank; and collections and customer questions.

Response: Interstate has one administrative employee dedicated to performing those tasks set forth in Request No. 3 as they relate to farm tap customers. While this employee spends approximately one-half (1/2) of her forty (40) hour work week on these farm tap related duties, Interstate has chosen to allocate only one-quarter of her time for purposes of this case. This computes to the twenty (20) hour per month total shown on Schedule 2. It should be noted that while Interstate's Chief Financial Officer and staff accountant also spend some time each month on farm tap related matters, no costs related to their time/salaries have been included in Schedule 2.

Request No. 4: Refer to Schedules 4 and 5. The IRS mileage rate and the postal rate are currently greater than that used in the schedules, 44.5 cents per mile and 39 cents per stamp respectively. Does Interstate agree that the more current rates should be used?

Response: Yes.

Request No. 5: Refer to the first page of Interstate's application. Interstate has developed its gas cost based on the NYMEX strip and a 2-year average of the Appalachian Differential. Provide a list of other indices that would be applicable for pricing the gas.

Response: All, or essentially all, of the gas from the wells serving the farm tap customers which is not diverted for farm tap use is sold into interstate commerce under contracts tied to NYMEX Appalachian pricing. For this reason, the NYMEX strip, adjusted for Appalachian Differential is the only relevant index for pricing Interstate's farm tap gas. In this

regard, it is noted that Interstate has not based its rate increase request on a weighted average NYMEX Appalachian price. Interstate sells the great majority of its farm tap gas during the winter months when the NYMEX Appalachian price is at its yearly high. By basing its rate increase request on a straight, non-weighted, NYMEX Appalachian average, Interstate has chosen to understate its cost of service in providing farm tap gas.

a. Provide the total volumes sold by Interstate during the past 24-month period.

Response: See Response to 5.c., below.

b. Provide the volumes sold to farm tap customers during the past 24-month period.

Response: 13,740 Mcf

c. Provide the per Mcf revenue derived from non-farm tap customers for the last 24 months.

Response: Interstate has filed a Petition with the Commission seeking confidential treatment of the information requested in Data Requests 5.a. and 5.c. The information sought by these Data Requests is set forth in an attachment to that Petition.

d. The Btu conversion rate used in Interstate's application is 1.252. Provide the basis for this conversion rate as well as a gas analysis for the wells serving Interstate's farm tap customers.

e. Provide any documentation used to arrive at the Btu conversion rate.

f. Provide Schedule 6 (which was not included in the application).

Response (d. e., and f. combined): Interstate shows on Schedule 6, attached hereto, its calculation of weighted average Btu to Mcf conversion rate of 1.252 for the 50 wells serving its 139 farm tap customers. Five different groups of wells are shown on Schedule 6 as serving these customers. Those groups of wells, and the documentation supporting the weighted average Btu for each group, are as follows:

1. Buffalo Horn (formerly Baiden) customers: See Exhibit 6-1, Columbia Gas Transmission Corporation Detail Statement showing the 1.250 Btu factor for these wells.

2. Colony Coal & Coke customers: See Exhibit 6-2, Columbia Natural Resources Invoice for Gathering showing the 1.260 Btu factor for these wells.

3. Myrtle Polley customers: See Exhibit 6-3, Chandler Engineering Gas Analysis showing the 1.112 Btu factor for these wells.

4. Donald Cohen & Eli Schneider customers: See Exhibit 6.4, Chandler Engineering Gas Analysis showing the 1.220 Btu factor for these wells.

5. All other farm tap customers: These remaining 53 farm tap customers are served by numerous wells situate in various locations throughout the Interstate operating area. Interstate has calculated an average Btu content for these wells of 1.292. Interstate has gas analyses for 14 of these wells, which appear as Exhibits 6-5a through 6-5n. The average Btu content for these 14 wells is 1.340. The Btu factors for the remaining wells for which no analyses are extant are taken from historical records. Interstate submits that the average Btu content 1.292 appearing on its Schedule 6 is a reasonable average based on all information available to it.

Request No. 6: Refer to Interstate's Notice of Proposed Rate Change. The present rate is reported as \$5.50 per Mcf, however, Interstate's tariff lists several different rates for its customers, depending on the existing rate when Interstate acquired the customers.

- a. Is Interstate requesting approval to unify the rate across all customers?
- b. If yes, explain why Interstate would prefer a unified rate.
- c. Have the customers who do not pay \$5.50 per Mcf been notified of their increase and the estimated effect on their bill? If no, explain why these customers were not notified of this change. If yes, explain whether these customers received the notice included in the application or a different notice which reflects their existing rate.

Response: Interstate's current tariff, effective February 4, 2006, authorizes a rate of \$5.50 per Mcf to all farm tap customers with the following exceptions:


1. All Colony Coal & Coke wells (9 customers) and Myrtle Polley wells (12 customers) - rate \$4.49 per Mcf;
2. Scattered customers - flat rate of \$30 to \$40 per month.

First with regard to the "scattered customers", none remain as Interstate farm tap customers.

With regard to the 21 Colony Coal & Coke and Myrtle Polley customers, Interstate instituted a \$5.50 per Mcf rate for their service prior to the filing of the current (original) Interstate tariff. The currently effective Interstate tariff sheet setting forth its rates and charges should have reflected a rate of \$5.50 per Mcf, rather than a rate of \$4.49 per Mcf, to these 21 customers. These 21 customers received the same notice of proposed rate increase as all other Interstate customers as they are shown on Interstate's accounts as receiving farm tap service at the rate of \$5.50 per Mcf. Interstate is requesting approval to unify its rate at the level requested in its application. Interstate submits that a unified rate is a fair to all customers, permits efficiencies in billing and accounting methods and is a generally accepted principle of rate-making.

The persons responsible for providing the information contained herein are Jerome A. Kanney and Michael Burke, Interstate Natural Gas Company.

Respectfully submitted,


MORRIS KENNEDY
Attorney for Interstate Natural Gas
Company
2332 Old Hickory Lane
Lexington KY 40515
(859) 245-1546

CC: All Parties

**SCHEDULE 6
AVERAGE BTU CALCULATION
INTERSTATE NATURAL GAS COMPANY**

	# Customers	BTU	Weighted Average
Buffalo Horn (formerly Baiden) customers	51	1.250	0.459
Colony Coal & Coke Wells	9	1.260	0.082
Myrtle Polley Wells	12	1.112	0.096
Donald Cohen & Eli Schneider wells (Lawrence County)	14	1.220	0.123
All other farm-tap customers	53	1.292	0.493
	<u>139</u>		<u>1.252</u>



**Columbia Gas Transmission Corporation
IPP/AS Measurement Detail
Business Date: May, 2005**

①

Operator: 004487 INTERSTATE NATU

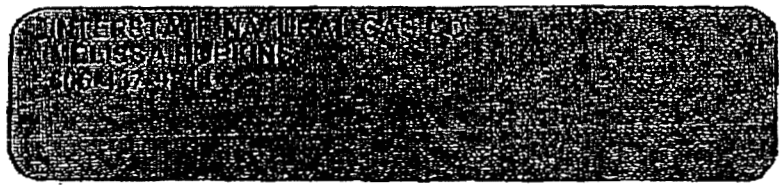
Meter Station	Meter Name	Meter Seq	Producer Name	Beginning Date	Ending Date	Total MCF Produced	BTU Factor	Total Dth Produced	Process Charge	Galher Charge	Allocation Methodology	Pool MCF Portion	Pool Dth Portion
---------------	------------	-----------	---------------	----------------	-------------	--------------------	------------	--------------------	----------------	---------------	------------------------	------------------	------------------

800875	BAIDEN GAS COMPANY	01	INTERSTATE NATU	04/27/2005	05/27/2005	12,487	1,250	15,608					
<i>Buffalo Hrvr</i>						<u>12,487</u>		<u>15,608</u>					
Total Station 800875 at 100.0%						<u>12,487</u>		<u>15,608</u>	Y	N			

Invoice for Gathering Char For the September 2005 Product



No. 9901 P. 1/2



If by Wire Transfer, Please

If by Check Please Remit

Gathering Agreement Number: 00024 Client Name: INTERSTATE N



BEAVER CREEK

Subtotal (CN

BOLDMAN

Colony Coalfields	cccc	888159	1,379	1,250	1,485	.06880	1,398	.32
-------------------	------	--------	-------	-------	-------	--------	-------	-----

Chandler Engineering Co.
Model 292/2920 BTU Analyzer

3

*Myrtle Polley
Master Meter*

Test time: Sept08 05 15:51
Test #: 1
Stream #: 1
Calibration #: 3
Location No.: 1083

	Standard/Dry Analysis	
	Mole%	BTU* R. Den.*
Methane	89.656	0.4966
Ethane	7.205	0.0748
Propane	1.730	0.0263
i-Butane	0.165	0.0033
n-Butane	0.357	0.0072
i-Pentane	0.071	0.0018
n-Pentane	0.077	0.0019
(C6+)	0.145	0.0046
Nitrogen	0.423	0.0041
(CO2)	0.172	0.0026

Ideal 100.00 1109.4 0.6232 2.6845
* : Uncorrected for compressibility at 60.0F & 14.730PSIA.
** : Liquid Volume reported at 60.0F.

	Standard/Dry Analysis	Saturated/Wet Analysis
Molar Mass	= 18.049	18.049
Relative Density	= 0.6246	0.6246
Compressibility Factor	= 0.9974	0.9973
Gross Heating Value	= 23271. BTU/lb	22886. BTU/lb
Gross Heating Value	= 1112.3 BTU/CF	1093.9 BTU/CF
Absolute Gas Density	= 47.7968 lbm/1000CF	47.7999 lbm/1000CF
Wobbe Index	= 1384.21	
Unnormalized Total	: 108.022	
Last Calibrated with Calgas of	1055.8 BTU/CF	Apr. 22 05 12:04
C6+ Last Update: GPA 2261-90.		
C6+ BTU/CF	5065.8, C6+ lbm/Gal 5.64250, and C6+ Mol. Wt. 92.00.	

Donald Cohen & Eli Schneider wells

1881 (4)

Chandler Engineering Co.
Model 292/2920 BTU Analyzer

Test time: Feb.24 06 14:37
Test #:11

Stream #: 7

Calibration #: 3
Location No. :2029

2-24-06

Standard/Dry Analysis

	Mole%	BTU*	R.Den.*	GPM**
Methane	76.825	777.75	0.4255	--
Ethane	10.742	190.55	0.1115	2.8711
Propane	5.795	146.14	0.0882	1.5954
i-Butane	0.471	15.36	0.0095	0.1542
n-Butane	1.455	47.58	0.0292	0.4587
i-Pentane	0.227	9.09	0.0056	0.0829
n-Pentane	0.277	11.12	0.0069	0.1002
(C6+)	0.356	18.05	0.0113	0.1531
Nitrogen	3.761	0.00	0.0364	--
(CO2)	0.091	0.00	0.0014	--

Ideal 100.00 1215.6 0.7255 5.4156

* : Uncorrected for compressibility at 60.0F & 14.730PSIA.

** : Liquid Volume reported at 60.0F.

Standard/Dry Analysis Saturated/Wet Analysis

Molar Mass	=	21.013	20.961
Relative Density	=	0.7277	0.7260
Compressibility Factor	=	0.9966	0.9965
Gross Heating Value	=	21903. Btu/lb	21591. Btu/lb
Gross Heating Value	=	1219.8 Btu/CF	1199.6 Btu/CF
Absolute Gas Density	=	55.6934 lbm/1000CF	55.5600 lbm/1000CF
Wobbe Index	=	1406.20	
Unnormalized Total	:	110.625	
Last Calibrated with Calgas of		1055.8 Btu/CF	Apr.22 05 12:04
C6+ Last Update: GPA 2261-90.			
C6+ BTU/CF		5065.8, C6+ lbm/Gal 5.64250, and C6+ Mol.Wt. 92.00.	

Pratt / Davis

Chandler Engineering Co.
Model 292/2920 BTU Analyzer

Test tire: June19 06 15:25
Test #:1

Stream #: 7

Calibration #: 5
Location No. :1138

	Standard/Dry Analysis			
	Mole%	BTU*	R.Den.*	GPM**
Methane	74.272	751.90	0.4114	--
Ethane	14.864	263.65	0.1543	3.9725
Propane	6.427	162.09	0.0979	1.7696
i-Butane	0.391	12.76	0.0079	0.1280
n-Butane	1.391	45.48	0.0279	0.4385
i-Pentane	0.174	6.98	0.0043	0.0637
n-Pentane	0.230	9.25	0.0057	0.0834
(C6+)	0.188	9.52	0.0060	0.0808
Nitrogen	1.933	0.00	0.0187	--
(CO2)	0.130	0.00	0.0020	--

Ideal 100.00 1261.6 0.7360 6.5364

* : Uncorrected for compressibility at 60.0F & 14.730PSIA.

** : Liquid Volume reported at 60.0F.

	Standard/Dry Analysis	Saturated/Wet Analysis
Molar Mass	= 21.317	21.260
Relative Density	= 0.7385	0.7365
Compressibility Factor	= 0.9963	0.9962
Gross Heating Value	= 22408. Btu/lb	22093. Btu/lb
Gross Heating Value	= 1266.3 Btu/CF	1245.3 Btu/CF
Absolute Gas Density	= 56.5139 lbm/1000CF	56.3663 lbm/1000CF
Wobbe Index	= 1449.12	
Unnormalized Total :	98.542	
Last Calibrated with Calgas of	1055.8 Btu/CF	Apr.28 06 08:09
C6+ Last Update: GPA 2261-90.		
C6+ BTU/CF	5065.8, C6+ lbm/Gal 5.64250, and C6+ Mol.Wt. 92.00.	

EL. Elliott

Chandler Engineering Co.
Model 292/2920 BTU Analyzer

Test time: June 19 06 12:20
Test #: 1

Stream #: 7

Calibration #: 5
Location No.: 1136

	Standard/Dry Analysis			
	Mol%	BTU*	R.Den.*	GPM**
Methane	75.820	767.57	0.4200	--
Ethane	14.141	250.83	0.1468	3.7794
Propane	5.759	145.50	0.0878	1.5885
i-Butane	0.578	18.84	0.0116	0.1891
n-Butane	1.615	52.80	0.0324	0.5090
i-Pentane	0.342	13.70	0.0085	0.1250
n-Pentane	0.389	15.65	0.0097	0.1410
(C6+)	0.415	21.07	0.0132	0.1787
Nitrogen	0.838	0.00	0.0081	--
(CO2)	0.093	0.00	0.0014	--

Ideal 100.00 1286.0 0.7395 6.5107
 * : Uncorrected for compressibility at 60.0F & 14.730PSIA.
 ** : Liquid Volume reported at 60.0F.

	Standard/Dry Analysis	Saturated/Wet Analysis
Molar Mass	= 21.418	21.359
Relative Density	= 0.7421	0.7401
Compressibility Factor	= 0.9962	0.9961
Gross Heating Value	= 22732. Btu/lb	22414. Btu/lb
Gross Heating Value	= 1290.9 Btu/CF	1269.4 Btu/CF
Absolute Gas Density	= 56.7888 lbm/1000CF	56.6365 lbm/1000CF
Wobbe Index	= 1473.63	
Unnormalized Total :	98.580	
Last Calibrated with Calgas of	1055.8 Btu/CF	Apr. 28 06 08:09
C6+ Last Update: GPA 2261-90.		
C6+ BTU/CF	5065.8, C6+ lbm/Gal 5.64250, and C6+ Mol.Wt. 92.00.	

Dollie
Martin

Chandler Engineering Co.
Model 292/2920 BTU Analyzer

Test time: June 16 06 15:30
Test #: 1

Stream #: 7

Calibration #: 5
Location No.: 1135

	Standard/Dry Analysis			
	Mole%	BTU*	R.Den.*	GPM**
Methane	77.683	786.43	0.4303	--
Ethane	13.743	243.77	0.1427	3.6730
Propane	5.670	143.00	0.0863	1.5612
i-Butane	0.368	12.01	0.0074	0.1205
n-Butane	1.227	40.13	0.0246	0.3869
i-Pentane	0.163	6.52	0.0040	0.0595
n-Pentane	0.203	8.17	0.0051	0.0736
(C6+)	0.161	8.15	0.0051	0.0691
Nitrogen	0.782	0.00	0.0076	--

Ideal 100.00 1248.2 0.7131 5.9439

* : Uncorrected for compressibility at 60.0F & 14.730PSIA.

** : Liquid Volume reported at 60.0F.

	Standard/Dry Analysis	Saturated/Wet Analysis
Molar Mass	= 20.653	20.607
Relative Density	= 0.7153	0.7138
Compressibility Factor	= 0.9965	0.9964
Gross Heating Value	= 22882. Btu/lb	22550. Btu/lb
Gross Heating Value	= 1252.6 Btu/CF	1231.8 Btu/CF

Absolute Gas Density = 54.7433 lbm/1000CF 54.6264 lbm/1000CF

Wobbe Index = 1456.44

Unnormalized Total : 100.425

Last Calibrated with Calgas of 1055.8 Btu/CF Apr. 28 06 08:09

C6+ Lab: Update: GPA 2261-90.

C6+ BTU/CF 5055.8, C6+ lbm/Gal 5.64250, and C6+ Mol.Wt. 92.00.

John
Lowe

Chandler Engineering Co.
Model 292/2920 BTU Analyzer

Test Time: June02 05 16:49
Test #: 1

Stream #: 1

Calibration #: 3
Location No.: 1019

	Standard/Dry Analysis			
	Mole%	BTU*	R.Den.*	GPM**
Methane	68.677	695.26	0.3804	--
Ethane	19.621	348.03	0.2037	5.2439
Propane	8.025	202.38	0.1222	2.2095
i-Butane	0.448	14.61	0.0090	0.1466
n-Butane	1.696	55.46	0.0340	0.5347
i-Pentane	0.193	7.75	0.0048	0.0708
n-Pentane	0.280	11.24	0.0070	0.1013
(C6+)	0.235	11.93	0.0075	0.1012
Nitrogen	0.697	0.00	0.0067	--
(CO2)	0.129	0.00	0.0020	--

Ideal 100.00 1346.7 0.7772 8.4079

* : Uncorrected for compressibility at 60.0F & 14.730PSIA.

** : Liquid Volume reported at 60.0F.

	Standard/Dry Analysis	Saturated/Wet Analysis
Molar Mass	= 22.511	22.433
Relative Density	= 0.7803	0.7777
Compressibility Factor	= 0.9957	0.9956
Gross Heating Value	= 22649. Btu/lb	22348. Btu/lb
Gross Heating Value	= 1352.5 Btu/CF	1330.0 Btu/CF
Absolute Gas Density	= 59.7153 lbm/1000CF	59.5123 lbm/1000CF
Wobbe Index	= 1505.58	
Unnormalized Total :	102.319	
Last Calibrated with Calgas of	1055.8 Btu/CF	Apr.22 05 12:04
C6+ Last Update: GPA 2261-90.		
C6+ BTU/CF	5065.8, C6+ lbm/Gal 5.64250, and C6+ Mol.Wt. 92.00.	

Mactha
Gibson

Chandler Engineering Co.
Model 292/2920 BTU Analyzer

Test time: July 26 05 16:35
Test #: 2

Stream #: 1

Calibration #: 3
Location No.: 1026

	Standard/Dry Analysis			
	Mole%	BTU*	R.Den.*	GPM**
Methane	70.288	711.56	0.3893	--
Ethane	17.441	309.37	0.1811	4.6613
Propane	7.952	200.55	0.1211	2.1895
i-Butane	0.450	14.67	0.0090	0.1472
n-Butane	1.717	56.13	0.0344	0.5411
i-Pentane	0.198	7.96	0.0049	0.0726
n-Pentane	0.270	10.83	0.0057	0.0976
(C6+)	0.274	13.91	0.0087	0.1180
Nitrogen	1.273	0.00	0.0123	--
(CO2)	0.138	0.00	0.0021	--

Ideal 100.00 1325.0 0.7697 7.8274

* : Uncorrected for compressibility at 60.0F & 14.730PSIA.

** : Liquid Volume reported at 60.0F.

	Standard/Dry Analysis	Saturated/Wet Analysis
Molar Mass	= 22.293	22.218
Relative Density	= 0.7726	0.7701
Compressibility Factor	= 0.9958	0.9958
Gross Heating Value	= 22503. Btu/lb	22200. Btu/lb
Gross Heating Value	= 1330.5 Btu/CF	1308.4 Btu/CF
Absolute Gas Density	= 59.1274 lbm/1000CF	58.9345 lbm/1000CF
Wobbe Index	= 1488.50	
Unnormalized Total :	106.039	
Last Calibrated with Calgas of	1055.8 Btu/CF	Apr. 22 05 12:04
C6+ Last Update: GPA 2261-90.		
C6+ BTU/CF	5065.8, C6+ lbm/Gal 5.64250, and C6+ Mol.Wt. 92.00.	

Collins
Date: 10

Chandler Engineering Co.
Model 292/2920 BTU Analyzer

Test time: July 26 05 16:16
Test #: 1

Stream #: 1

Calibration #: 3
Location No.: 1036

	Standard/Dry Analysis			
	Mole%	BTU*	R.Den.*	GPM**
Methane	66.348	671.68	0.3675	--
Ethane	21.259	377.10	0.2207	5.6818
Propane	8.723	220.00	0.1328	2.4018
i-Butane	0.517	16.84	0.0104	0.1690
n-Butane	1.904	62.27	0.0382	0.6003
i-Pentane	0.213	8.56	0.0053	0.0781
n-Pentane	0.313	12.59	0.0078	0.1135
(C6+)	0.253	12.65	0.0080	0.1090
Nitrogen	0.317	0.00	0.0031	--
(CO2)	0.152	0.00	0.0023	--
Ideal	100.00	1381.9	0.7961	9.1534

* : Uncorrected for compressibility at 60.0F & 14.730PSIA.
** : Liquid Volume reported at 60.0F.

	Standard/Dry Analysis	Saturated/Wet Analysis
Molar Mass	= 23.058	22.970
Relative Density	= 0.7995	0.7965
Compressibility Factor	= 0.9954	0.9953
Gross Heating Value	= 22690. Btu/lb	22395. Btu/lb
Gross Heating Value	= 1388.2 Btu/CF	1365.1 Btu/CF
Absolute Gas Density	= 61.1829 lbm/1000CF	60.9544 lbm/1000CF
Wobbe Index	= 1526.69	
Unnormalized Total :	107.588	
Last Calibrated with Calgas of	1055.8 Btu/CF	Apr. 22 05 12:04
C6+ Last Update: GPA 2261-90.		
C6+ BTU/CF	5065.8, C6+ lbm/Gal 5.64250, and C6+ Mol.Wt. 92.00.	

Chandler Engineering Co.
 Model 292/2920 BTU Analyzer

Duke
 Well

Test Name: July27 05 05:13
 Test #: 1

Stream #: 1

Calibration #: 3
 Location No.: 1040

	Standard/Dry Analysis			
	Mole%	BTU*	R.Den.*	GPM**
Methane	59.788	605.27	0.3312	--
Ethane	23.915	424.21	0.2483	6.3917
Propane	10.899	274.89	0.1659	3.0010
i-Butane	0.635	20.70	0.0127	0.2077
n-Butane	2.635	86.17	0.0529	0.8307
i-Pentane	0.337	13.50	0.0084	0.1232
n-Pentane	0.547	21.98	0.0136	0.1981
(C6+)	0.537	27.26	0.0171	0.2312
Nitrogen	0.542	0.00	0.0052	--
(CO2)	0.165	0.00	0.0025	--
Ideal	100.00	1474.0	0.8578	10.9835

* : Uncorrected for compressibility at 60.0F & 14.730PSIA.
 **: Liquid Volume reported at 60.0F.

	Standard/Dry Analysis	Saturated/Wet Analysis
Molar Mass	= 24.845	24.726
Relative Density	= 0.8621	0.8580
Compressibility Factor	= 0.9946	0.9946
Gross Heating Value	= 22462. Btu/lb	22190. Btu/lb
Gross Heating Value	= 1481.9 Btu/CF	1457.1 Btu/CF
Absolute Gas Density	= 65.9768 lbm/1000CF	65.6650 lbm/1000CF
Wobbe Index	= 1569.32	
Unnormalized Total :	105.984	
Last Calibrated with Calgas of	1055.8 Btu/CF	Apr.22 05 12:04
C6+ Lab: Update: GPA 2261-90.		
C6+ BTU/CF	5065.8, C6+ lbm/Gal	5.64250, and C6+ Mol.Wt. 92.00.

Chandler Engineering Co.
Model 292/2920 BTU Analyzer

Harcu Martin
well

Test time: Aug.01 05 16:49
Test #:1

Stream #: 1

Calibration #: 3
Location No. :1052

	Standard/Dry Analysis			
	Mole%	BTU*	R.Den.*	GPM**
Methane	66.545	673.67	0.3686	--
Ethane	19.609	347.83	0.2036	5.2408
Propane	9.406	237.22	0.1432	2.5898
i-Butane	0.518	16.88	0.0104	0.1693
n-Butane	2.233	73.03	0.0448	0.7041
i-Pentane	0.248	9.94	0.0062	0.0907
n-Pentane	0.364	14.64	0.0091	0.1320
(C6+)	0.405	20.56	0.0129	0.1744
Nitrogen	0.493	0.00	0.0048	--
(CO2)	0.179	0.00	0.0027	--
Ideal	100.00	1393.8	0.8062	9.1011

* : Uncorrected for compressibility at 60.0F & 14.730PSIA.
** : Liquid Volume reported at 60.0F.

	Standard/Dry Analysis	Saturated/Wet Analysis
Molar Mass	= 23.349	23.256
Relative Density	= 0.8097	0.8065
Compressibility Factor	= 0.9953	0.9952
Gross Heating Value	= 22600. Btu/lb	22310. Btu/lb
Gross Heating Value	= 1400.3 Btu/CF	1376.9 Btu/CF
Absolute Gas Density	= 61.9614 lbm/1000CF	61.7194 lbm/1000CF
Wobbe Index	= 1530.27	
Unnormalized Total :	105.236	
Last Calibrated with Calgas of	1055.8 Btu/CF	Apr.22 05 12:04
C6+ Last Update: GPA 2261-90.		
C6+ BTU/CF	5065.8, C6+ lbm/Gal 5.64250, and C6+ Mol.Wt. 92.00.	

Chandler Engineering Co.
 Model 292/2920 BTU Analyzer

Mitchell #4

Test time: July 26 05 16:55
 Test #: 1

Stream #: 1

Calibration #: 3
 Location No.: 1037

	Standard/Dry Analysis			
	Moles	BTU*	R. Den.*	GPM**
Methane	70.519	713.90	0.3906	--
Ethane	18.256	323.82	0.1895	4.8790
Propane	7.654	193.04	0.1165	2.1074
i-Butane	0.488	15.92	0.0098	0.1597
n-Butane	1.813	59.30	0.0364	0.5717
i-Pentane	0.219	8.78	0.0055	0.0801
n-Pentane	0.327	13.15	0.0082	0.1185
(C6+)	0.302	15.35	0.0096	0.1302
Nitrogen	0.266	0.00	0.0026	--
(CO2)	0.156	0.00	0.0024	--

Ideal 100.00 1343.3 0.7710 8.0467

* : Uncorrected for compressibility at 60.0F & 14.730PSIA.
 **: Liquid Volume reported at 60.0F.

	Standard/Dry Analysis	Saturated/Wet Analysis
Molar Mass	= 22.330	22.255
Relative Density	= 0.7740	0.7714
Compressibility Factor	= 0.9957	0.9957
Gross Heating Value	= 22775. Btu/lb	22469. Btu/lb
Gross Heating Value	= 1349.0 Btu/CF	1326.5 Btu/CF
Absolute Gas Density	= 59.2319 lbm/1000CF	59.0372 lbm/1000CF
Wobbe Index	= 1507.80	
Unnormalized Total	: 106.751	
Last Calibrated with Calgas of	1055.8 Btu/CF	Apr. 22 05 12:04
C6+ Last Update: GPA 2261-90.		
C6+ BTU/CF	5065.8, C6+ lbm/Gal 5.64250, and C6+ Mol.Wt. 92.00.	

T.E. Williamson

Chandler Engineering Co.
Model 292/2920 BTU Analyzer

Test time: July 26 05 16:35
Test #: 2

Stream #: 1

Calibration #: 3
Location No.: 1026

	Standard/Dry Analysis			
	Mole%	BTU*	R.Den.*	GPM**
Methane	70.288	711.56	0.3893	--
Ethane	17.441	309.37	0.1811	4.6613
Propane	7.952	200.55	0.1211	2.1895
i-Butane	0.450	14.67	0.0090	0.1472
n-Butane	1.717	56.13	0.0344	0.5411
i-Pentane	0.198	7.96	0.0049	0.0726
n-Pentane	0.270	10.83	0.0067	0.0976
(C6+)	0.274	13.91	0.0087	0.1180
Nitrogen	1.273	0.00	0.0123	--
(CO2)	0.138	0.00	0.0021	--
Ideal	100.00	1325.0	0.7697	7.8274

* : Uncorrected for compressibility at 60.0F & 14.730PSIA.
** : Liquid Volume reported at 60.0F.

	Standard/Dry Analysis	Saturated/Wet Analysis
Molar Mass	= 22.293	22.218
Relative Density	= 0.7726	0.7701
Compressibility Factor	= 0.9958	0.9958
Gross Heating Value	= 22503. Btu/lb	22200. Btu/lb
Gross Heating Value	= 1330.5 Btu/CF	1308.4 Btu/CF
Absolute Gas Density	= 59.1274 lbm/1000CF	58.9345 lbm/1000CF
Wobbe Index	= 1488.50	
Unnormalized Total :	106.039	
Last Calibrated with Calgas of	1055.8 Btu/CF	Apr. 22 05 12:04
C6+ Last Update: GPA 2261-90.		
C6+ BTU/CF	5065.8, C6+ lbm/Gal 5.64250, and C6+ Mol.Wt. 92.00.	

Collin
Date #2

Chandler Engineering Co.
Model 292/2920 BTU Analyzer

Test time: July 26 03 16:16
Tes: #:1

Stream #: 1

Calibration #: 3
Location No. :1036

	Standard/Dry Analysis			
	Mole%	BTU*	R.Den.*	GPV**
Methane	66.348	571.68	0.3675	--
Ethane	21.259	377.10	0.2207	5.6818
Propane	8.723	220.00	0.1328	2.4018
i-Butane	0.517	16.84	0.0104	0.1690
n-Butane	1.904	62.27	0.0382	0.6003
i-Pentane	0.213	8.56	0.0053	0.0781
n-Pentane	0.313	12.59	0.0078	0.1135
(C6+)	0.253	12.85	0.0080	0.1090
Nitrogen	0.317	0.00	0.0031	--
(CO2)	0.152	0.00	0.0023	--
Ideal	100.00	1381.9	0.7961	9.1534

* : Uncorrected for compressibility at 60.0F & 14.730PSIA.
** : Liquid Volume reported at 60.0F.

	Standard/Dry Analysis	Saturated/Wet Analysis
Molar Mass	= 23.058	22.970
Relative Density	= 0.7995	0.7965
Compressibility Factor	= 0.9954	0.9953
Gross Heating Value	= 22690. Btu/lb	22395. Btu/lb
Gross Heating Value	= 1388.2 Btu/CF	1365.1 Btu/CF
Absolute Gas Density	= 61.1829 lbm/1000CF	60.9544 lbm/1000CF
Wobbe Index	= 1526.69	
Unnormalized Total :	107.588	
Last Calibrated with Calgas of	1055.8 Btu/CF	Apr. 22 05 12:04
C6+ Last Update: GPA 2261-90.		
C6+ BTU/CF	5065.8, C6+ lbm/Gal 5.64250, and C6+ Mol.Wt. 92.00.	

Chandler Engineering Co.
 Model 292/2920 BTU Analyzer

~~Wicker~~

Test Date: Aug.09 05 16:28
 Test #: 2

Stream #: 1

Calibration #: 3
 Location No. :1058

	Standard/Dry Analysis			GDM**
	Mole%	BTU*	R.Den.*	
Methane	66.969	677.97	0.3709	--
Ethane	19.939	353.67	0.2070	5.3289
Propane	9.434	237.93	0.1436	2.5975
i-Butane	0.507	16.54	0.0102	0.1660
n-Butane	2.010	65.74	0.0403	0.6338
i-Pentane	0.207	8.29	0.0052	0.0757
n-Pentane	0.284	11.40	0.0071	0.1027
(C6+)	0.170	8.64	0.0054	0.0733
Nitrogen	0.324	0.60	0.0031	--
(CO2)	0.156	0.00	0.0024	--

Ideal 100.00 1380.2 0.7952 8.9779

* : Uncorrected for compressibility at 60.0F & 14.730PSIA.

** : Liquid Volume reported at 60.0F.

	Standard/Dry Analysis	Saturated/Wet Analysis
Molar Mass	= 23.032	22.945
Relative Density	= 0.7986	0.7956
Compressibility Factor	= 0.9954	0.9954
Gross Heating Value	= 22688. Btu/lb	22393. Btu/lb
Gross Heating Value	= 1386.5 Btu/CF	1363.4 Btu/CF

Absolute Gas Density = 61.1124 lbm/1000CF 60.8851 lbm/1000CF
 Wobbe Index = 1525.67

Unnormalized Total : 107.943

Last Calibrated with Calgas of 1055.8 Btu/CF Apr.22 05 12:04

C6+ Last Update: GPA 2261-90.

C6+ BTU/CF 5065.8, C6+ lbm/Gal 5.66250, and C6+ Mol.Wt. 92.00.

Chandler Engineering Co.
Model 292/2920 BTU Analyzer

Foley
Well

Test time: Aug.08 05 14:45
Test #: 1

Stream #: 1

Calibration #: 3
Location No. :1060

	Standard/Dry Analysis			
	Mole%	BTU*	R.Den.*	GPM**
Methane	78.002	789.86	0.4320	--
Ethane	13.222	234.54	0.1373	3.5338
Propane	5.602	141.28	0.0853	1.5424
i-Butane	0.395	12.88	0.0079	0.1293
n-Butane	1.369	44.76	0.0275	0.4316
i-Pentane	0.198	7.93	0.0049	0.0724
n-Pentane	0.260	10.43	0.0065	0.0940
(C6+)	0.260	13.19	0.0083	0.1119
Nitrogen	0.539	0.00	0.0052	--
(CO2)	0.153	0.00	0.0023	--
Ideal	100.00	1254.7	0.7172	5.9153

* : Uncorrected for compressibility at 60.0F & 14.730PSIA.
**: Liquid Volume reported at 60.0F.

	Standard/Dry Analysis	Saturated/Wet Analysis
Molar Mass	= 20.772	20.724
Relative Density	= 0.7195	0.7179
Compressibility Factor	= 0.9964	0.9963
Gross Heating Value	= 22869. Btu/lb	22539. Btu/lb
Gross Heating Value	= 1259.2 Btu/CF	1238.3 Btu/CF
Absolute Gas Density	= 55.0617 lbm/1000CF	54.9393 lbm/1000CF
Wobbe Index	= 1459.84	
Unnormalized Total :	107.588	
Last Calibrated with Calgas of	1055.8 Btu/CF	Apr.22 05 12:04
C6+ Last Update: GPA 2261-90.		
C6+ BTU/CF	5065.8, C6+ lbm/Gal 5.64250, and C6+ Mol.Wt. 92.00.	

Chandler Engineering Co.
Model 292/2920 BTU Analyzer

Curtis
Francis

Test time: Aug.08 05 15:01
Test #: 1

Stream #: 1

Calibration #: 3
Location No. :1061

	Standard/Dry Analysis			
	Mole%	BTU*	R.Den.*	GPM**
Methane	75.585	765.20	0.4187	--
Ethane	15.252	270.53	0.1583	4.0762
Propane	6.047	152.51	0.0921	1.6650
i-Butane	0.415	13.52	0.0083	0.1357
n-Butane	1.358	44.41	0.0273	0.4282
i-Pentane	0.180	7.21	0.0045	0.0658
n-Pentane	0.240	9.65	0.0060	0.0870
(C6+)	0.220	11.17	0.0070	0.0947
Nitrogen	0.576	0.00	0.0056	--
(CO2)	0.127	0.00	0.0019	--
Ideal	100.00	1274.2	0.7296	6.5524

* : Uncorrected for compressibility at 60.0F & 14.730PSIA.
** : Liquid Volume reported at 60.0F.

	Standard/Dry Analysis	Saturated/Wet Analysis
Molar Mass	= 21.131	21.077
Relative Density	= 0.7320	0.7302
Compressibility Factor	= 0.9963	0.9962
Gross Heating Value	= 22830. Btu/lb	22506. Btu/lb
Gross Heating Value	= 1279.0 Btu/CF	1257.7 Btu/CF
Absolute Gas Density	= 56.0220 lbm/1000CF	55.8829 lbm/1000CF
Wobbe Index	= 1469.98	
Unnormalized Total :	107.859	
Last Calibrated with Calgas of	1055.8 Btu/CF	Apr.22 05 12:04
C6+ Last Update: GPA 2261-90.		
C6+ BTU/CF	5065.8, C6+ lbm/Gal 5.64250, and C6+ Mol.Wt. 92.00.	