Lynne P. Shewmaker
7330 Maple Avenue, St. Louis, Missouri 63143
Phone: 314-781-7678 (hm) 314-335-1113 (wk)

June 27, 2006

FILED[3]
JUN 29 2006
Missouri Public Service Commission

Ms. Tracy Leonberger
Missouri Public Service Commission
Post Office Box 360
Jefferson City, MO 65102

Dear Ms. Leonberger,

In reference to your letter to me of June 9, 2006, I enclose herewith original Complaint and nine copies as required for filing with the Commission.

I have forwarded a copy to Laclede Gas Company.

Very truly yours,

Lynne P. Shewmaker

Lynne P. Shewmaker

cc: Laclede Gas Company
Attention: Mr. George Csolak (with enclosure) ✓
Attention: Rhonda, Special Services (without enclosure)

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE
STATE OF MISSOURI

FILED[3]
JUN 29 2006
Missouri Public Service Commission

Name: Lynne P. Shewmaker
Complainant

vs.

Company Name: Laclede Gas Company
Respondent

Case No.

COMPLAINT

Complainant resides at 7330 MAPLE AVENUE, ST. Louis, mo 63143
(address of complainant)
(phone: 314-781-7678 (hm) (phone: 314-335-1113 (wk)

1. Respondent, Laclede Gas Company
(company name)
of 720 Olive St, St. Louis, Mo 63101, is a public utility under the
(location of company)
jurisdiction of the Public Service Commission of the State of Missouri.

2. As the basis of this complaint, Complainant states the following facts:

Please see attached!

3. The Complainant has taken the following steps to present this complaint to the Respondent:

Please see attached!

2. As the basis of this complaint, Complainant states the following facts:

In the summer of 2005 I was advised by Laclede that I would be one of the first houses in St. Louis to receive a new AMR READER. In July of 2005 a new AMR READER was installed on my OLD METER. At that time I did not realize what the AMR device was. I thought it would be a similar replacement to that of my TRACE READER used over the past 10 years. My TRACE READER had stopped working about 12 months prior. I was unaware of this and therefore my bill was estimated for about 12 months until early 2005. The TRACE READER was a reader which read outside on the house, the digits of the meter inside. For the almost 10 years I had a TRACE READER. The TRACE READER only read what was on the inside meter and it could be checked by the homeowner at any time to see that it matched. After my complaints in late 2005 and early 2006 that the FIRST AMR READER was inaccurate because of the excessive therm usage for the corresponding amount of degree days, Laclede Gas Company agreed to replace the OLD METER. At first I wanted to just remove the first AMR READER and see what readings appeared. Laclede Gas Company however wanted to replace the METER AND the FIRST AMR READER with a SECOND AMR READER. This second new AMR READER and NEW METER appear to be reading correctly, and the therm usage is corresponding respectively with the heating degree days. However, as we had a mild winter last year, there was not much time for comparison of the NEW METER and SECOND AMR READER installed in February of 2006.

My husband and I have completed a regression analysis and comparisons to show that the reading of the FIRST AMR READER installed in the summer of 2005 and removed in February 2006, was way out of the norm with its readings. I have lived in this house for over 27 years and the heating degree day versus therm usage for the period of Fall of 2005 to February 2006 was more than double what had ever been used in the prior 20 years. We had a very mild winter in 2005/2006, but my therm usage/heating degree day comparison was double than for years which were twice as cold as this past winter. I had my furnace/heating system checked before the winter in September of 2005, and again after the NEW METER and SECOND AMR READER were installed in February 2006. At this time I had the entire system analyzed and assessed and was told by Seliga Heating (my maintenance contractor) that all components of the heating system were perfectly fine.

Many individuals in my neighborhood do not have the remote readers but have similar houses the size of mine. For years I have had bills which compare with theirs. This past winter they received Laclede Gas Company bills half the therm usage of mine for the winter of 2005-2006.

Because I was one of the first individuals in St. Louis to receive one of the new AMR READERS I believe that mine was miscalibrated at the onset and remained so until removal. I understand there are different kinds of meters and different calibrations are required for different meters. Also, Laclede Gas Company now claims that my original OLD METER with the TRACE READER was misreading at only half of my real usage since it was installed (1997)!! There was nothing wrong with my OLD METER as claimed by Laclede Gas Company (I now no longer have the OLD METER to have it privately checked – it is in the hands of Laclede Gas Company!). The OLD METER only started "misreading" after the FIRST AMR READER was installed!!!

At the time the NEW METER and SECOND AMR READER were installed in February 2006 I was told that the meter itself and the reader had been calibrated "correctly" and that I should "have no further problems with it." I was also told that the meter and reader had been "locked up" overnight to be sure that nothing would go "wrong with it" before it was installed in my house.

I have four years of records currently available for my analysis. Rhonda at Laclede Gas Company agreed, on May 2, 2006, to send me our gas therm usage since 1979 to the present. I have never received this information. The past four years of records show a great discrepancy in the therm usage for the months of the winter of 2005/2006.

My complaint is: (1) that Laclede Gas's FIRST AMR READER was miscalibrated with my OLD METER and misread more than twice the usage, (2) that Laclede Gas provide me with complete records of my gas usage as requested on May 2, 2006; (3) that we owe no arrearage to Laclede Gas for these misread amounts; (4) that the AMR READER be removed from my NEW METER.

3. The Complainant has taken the following steps to present this complaint to Respondent.

Many attempts have been made to notify Laclede Gas Company of the above problem. January 13, 2006 (2 phone calls), January 27, 2006 (2 phone calls), January 30, 2006, February 2, 2006, February 4, 2006, February 6, 2006, February 7, 2006, February 25, 2006 and new meter installed February 17,2006.

Letters dated January 2, 2006, March 3, 2006, April 11, 2006 (attached)

May 2, 2006 I spoke with Rhonda at Laclede Gas Special Services.

I also served a copy of this complete Complaint on this _____ day of June, 2006 by mailing a copy to:

Mr. George Csolak
Laclede Gas Company
720 Olive Street
St. Louis, Missouri 63101

file

7330 Maple Avenue
St. Louis, MO 63143
(314) 781-7678
(314) 335-1113 (wk)

LYNNE P. SHEWMAKER (McCoy)

January 2, 2006

Accounts Supervisor
Laclede Gas Company
Drawer 2
St. Louis, MO 63171

Re: Property – 7330 Maple Avenue, St. Louis, MO 63143
Account No: 445141-001-2

This past week I received my bill for the month of November 22, 2005 to December 22, 2005. The total amount due is **$661.36**. I have lived in this house for almost 25 years, and for the duration of this time I have never received such a bill! I would most certainly never expect such a bill where the degree days totaled only 990.

There has been a problem with my account and with your company for over 18 months. Over 12 months ago (2004) my outside meter reader stopped working and I was estimated gas usage for over a year. At this time my gas usage was estimated on the year before (2003). In mid summer 2005 I had the meter read and the CCF usage corrected because I believed it was estimated higher than it should have been. At this time it was discovered I **had** been overcharged $1,362.77 for the past year of estimates!! I was reimbursed this amount and in late summer 2005 a new outside meter reader was installed.

I understand there was to be a 30% to 40% increase in cost this winter, not over 200%!!! My furnace was serviced in September and it is operating well. **My bill for the same time last year, 11-22-04 to 12-22-04 (785 degree days) was 82 CCF of use!! This month, 11-22-05 to 12-22-05 (990 degree days) was 439 CCF of use!!**

Based upon **actual** degree-day data and usage from our past two months of bills, we ran a regression analysis. Using this relationship the **actual** usage for the **last two months should have been closer to 124 CCF** (10-21-05 to 11-22-05) **and 251 CCF** (11-22-05 t0 12-22-05) **respectively instead of 250 CCF** (10-21-05 to 11-22-05) and **439 CCF** (11-22-05 to 12-22-05) **respectively.**

I believe my meter is faulty and probably was damaged at the time the remote reader was reinstalled. It is over 10 years old and there is no way we have incurred a bill of over $600.00 for four weeks of usage in a not very cold month.

I request a supervisor check my records for the past 25 years, and confirm that something is not right and I request that the meter be checked as soon as possible.

Very truly yours,

Lynne P. Shewmaker

March 3, 2006

Lynne P. and Sherman N. Shewmaker
7330 Maple Avenue
Maplewood, MO 63143
PH 314-781-7678

Laclede Gas Company
ATTN: Mr. George Csolak
720 Olive Street
St. Louis, Missouri 63101
PH 314-342-0500

Dear Mr. Csolak:

We are contesting the last four months of gas usage and the associated charges. We are also requesting a permanent resolution to the continuing problem of usage overcharges that we are getting now on an ongoing basis. We do not want to continue the current cycle: You bill us for incorrect usage, we prove you are wrong, you threaten to cut off our gas for non-payment, we pay half our monthly bills, you research the problem and admit your mistake, you reimburse us for overcharges. Let me give you a little **history**, then we will present **our analysis**, ask for **immediate resolution** for the last four months' bills, and finally ask for a **permanent solution**.

HISTORY

We have lived at this current location for almost 30 years now. About 15 years ago our gas furnace (with steam heat) was replace. We therefore have a good history for the establishment of what our gas bills should be, based on the monthly temperatures.

In April 2004 our outside meter reader malfunctioned. From that date until April 2005 our gas bills (8 months in all) were estimated by Laclede. It became clear that these estimates were actually over-estimates. We contacted Laclede and asked for an analysis to be done of our billing. Laclede conducted an analysis, and in June 2005 you reimbursed us $1,362.77 for the 8 months of overcharges.

In July 2005 a new remote reader was installed on our meter. The first winter bill (October 2005) was estimated. After that the automatic reader readings were used to compute our monthly usage. Our November 2005 natural gas bill was the highest we have ever had--$660. As all other Laclede customers, we were expecting higher gas prices this winter. But we looked beyond the cost of the bill to the actual usage indicated in therms. November was a fairly average November temperature-wise. But our therm usage seemed unusually high. We payed half of the bill to avoid having our gas disconnected. We contacted Laclede and continued to monitor our billing over the next 3 months. On February 17, 2006 Laclede installed a new meter with a new automatic reader. Additionally, just before the beginning of this winter season, our boiler (steam heat) was checked for leaks, cleaned, and calibrated.

We decided to conduct our own analysis of our usage since my husband has a PhD in physical geography.

OUR ANALYSIS

There is a simple relationship between outside temperature (measured in Heating Degree Days--HDD) and energy usage (measured in Therms) for a particular house. As long as energy use in a household remains the same (no heater problems, no change in thermostat settings, no change in hot water use, etc) this relationship remains constant. It is different for each house depending on a number of factors, including size of the house, insulation, etc.

We asked Laclede for a record of our bills going back several years. You provided us with data (therm usage) beginning in April 2002. We looked up climatic records for St Louis and recorded the corresponding HDD data. This **raw data** is presented in **Table 1**. We analyzed the data in several ways.

First, we did a simple analysis of the data by **Rank Order Analysis** (see **Table 2**). In this type of analysis, one just sorts the data in ascending order (from lowest to highest) using the HDD column. The corresponding usage (in Therms) should also be in rank order. If this is not the case, the discrepant values can be analyzed. In this table, the orange values indicate estimated (by Laclede) use; ***red italicized*** values indicate the four months since the remote reader was installed.

The results are clear. **The last 4 months do not follow the progression.** They indicate significantly greater therm usage versus HDDs than the data indicates should be the case. (NOTE: During the period of data considered here, two adult children lived with us for the time PRIOR to the last 4 months. Both have since moved out. Since then we have turned the thermostat down significantly (68 deg to 60 deg), fewer baths (gas water heater) are being taken, and we have no one in the house during the day. All of this SHOULD have led to lower gas usage per HDD during the last 4 months. On the contrary, your billing indicates GREATER usage). It should also be noted that there are some under-estimates by Laclede in our usage.

Second, we conducted a **Regression Analysis** of the data **(see Graph 1).** We plotted Therms versus HDDs to describe the relationship for our house between outside temperature and heating requirements. We found the scatterplot was very consistent--most of the points plotted near a straight line describing the relationship. **Four points were way off of this line--the last 4 months of use!!** Since our energy useage habits have not changed, and our boiler (steam heat) was checked just before the winter season began, we believe this points up EITHER a bad meter OR a bad reader OR both. NOTE: You all installed a new meter/reader on February 17, 2006. The reading since that date ALSO appears discrepant. We realize a few more months of data are required to define any new relationship (if the new meter or reader indicate any change).

We also analyzed the data using **Double Mass Curve Analysis** (see **Graph 2**). All one does in this analysis is to accumulate HDDs and Therms over time. If there is any change

in the relationship, it will be indicated by a change in slope of this line. There were two breaks in the slope of this curve--once IN THE MIDDLE OF the estimates* of usage, and once after the new remote reader was installed**--last 4 months of data.

*NOTE: The first break is an obvious mistake in Laclede's estimated data.

**NOTE: The second break is a *bone fide* change in the usage relationship, and we contend it is an error in EITHER the gas meter (even the new one indicates no change in this "new" relationship OR the gas reader OR both the meter and the reader.

IMMEDIATE RESOLUTION

We believe our usage has not been properly indicated by either the meter or the reader and that we owe considerably less to Laclede than what we have been charged for, for the 4 months of December 05, January 06, February 06, and March 06. We believe this can be settled by taking the Regression Equation developed in the Regression Analysis and using it to compute the 'correct' usage for these 4 months. From the usage, in turn, the 'correct billing' for each month can be computed. See **Table 3, CORRECT USAGE/CHARGES**. For the 4 months in question, please refer to the Table for the figures. Based upon this analysis and the quantities we have already paid Laclede for gas for these 4 months, we believe the **equitable solution** is for **Laclede to reimburse us in the amount of $69**.

PERMANENT SOLUTION

This does NOT resolve this issue going forward. We would like Laclede to develop a solution which ends this cycle so that we do not have to continue to monitor this situation from month to month and to present us with a **permanent solution**.

Thanks for your time.

Sincerely,
Lynne P. Shewmaker Sherman N. Shewmaker

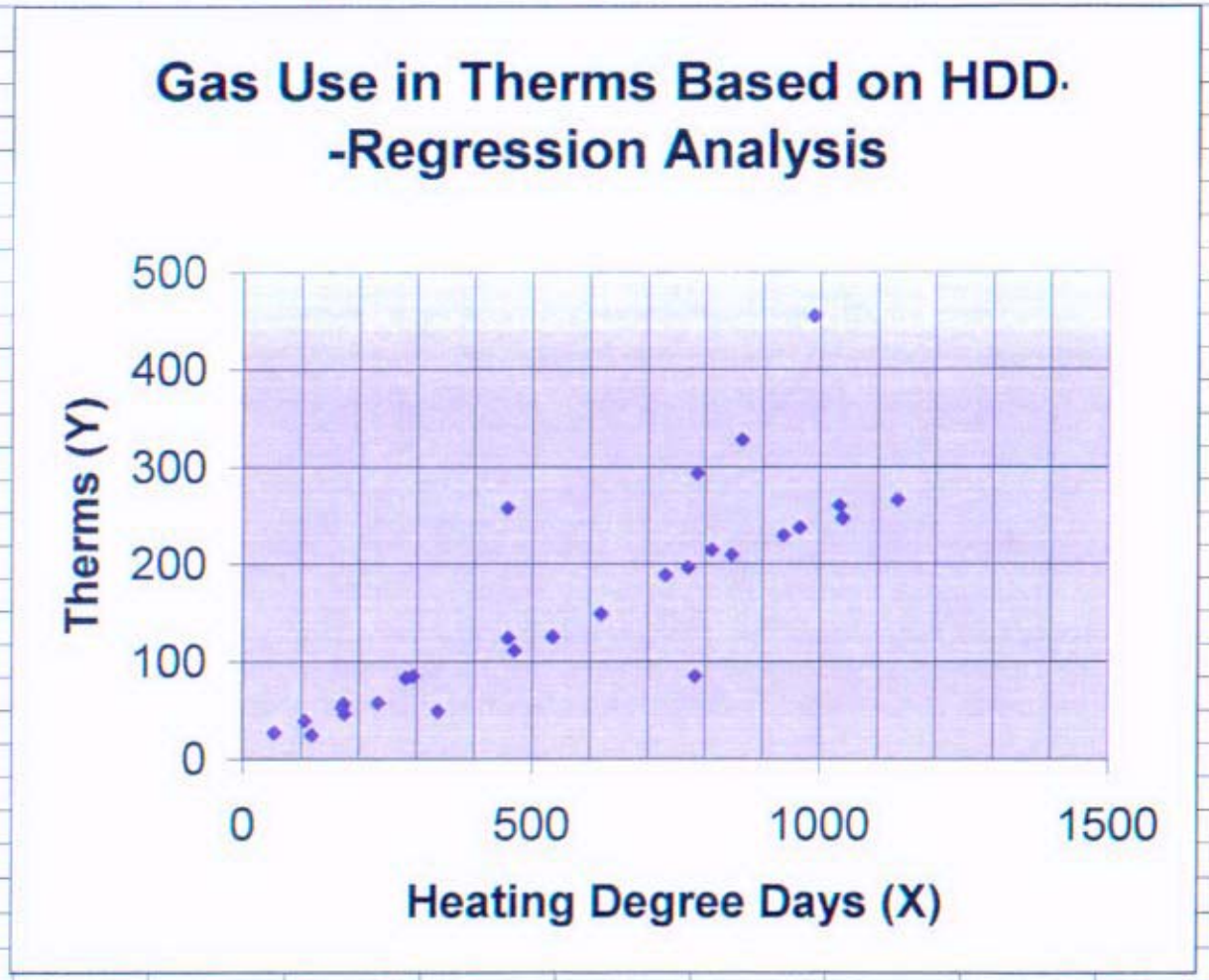
Lynne P. and Sherman N. Shewmaker
7330 Maple Avenue
Maplewood, MO 63143
PH 314-781-7678

Cc:
St Louis Post Dispatch
KMOV-TV
Missouri Public Service Commission
Missouri Attorney General's Office

Graph 1 -- Regression Analysis

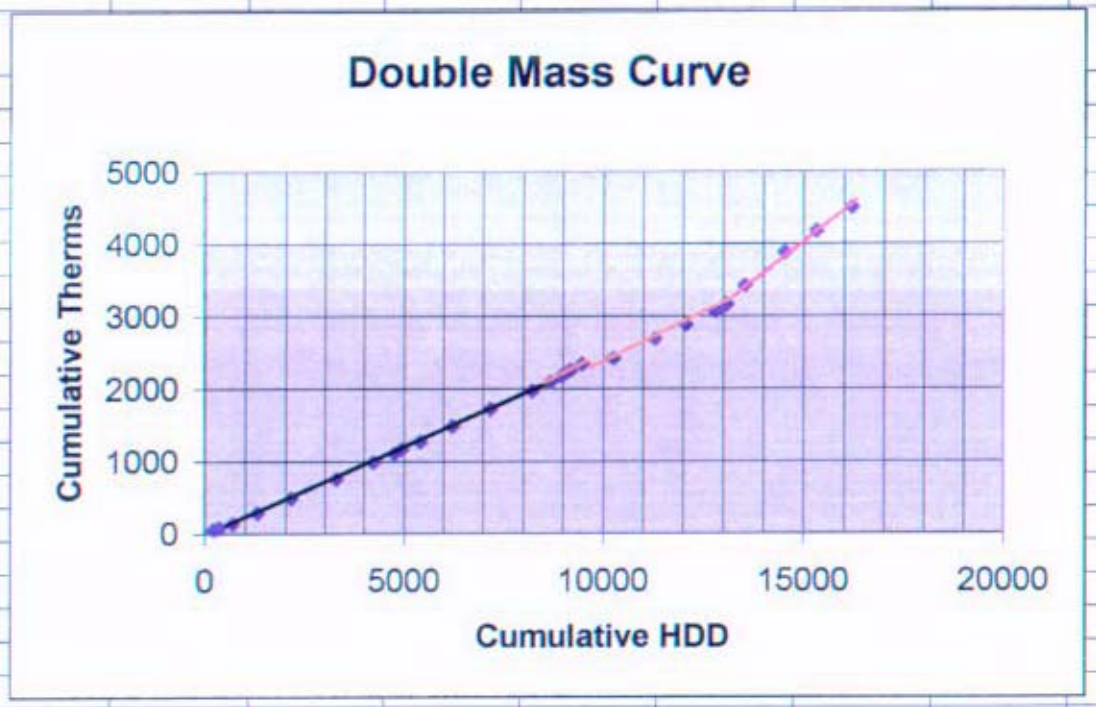
Month	HDD	Therms (Y)
Apr-02	234	57.4
May-02	120	24.5
Oct-02	338	48.8
Nov-02	620	148.8
Dec-02	847	209.1
Jan-03	1135	265.7
Feb-03	937	229.4
Mar-03	536	125.4
Oct-03	176	46.1
Nov-03	470	111
Dec-03	812	214.2
Jan-04	965	237.2
Feb-04	1040	246.9
Mar-04	459	123.7
Apr-04	283	82.5
May-04	55	26.7
Oct-04	172	52.9
Nov-04	295	85
Dec-04	783	84.5
Jan-05	1034	260.1
Feb-05	771	196.3
Mar-05	732	188.5
Apr-05	174	56.4
Oct-05	107	38.8
Nov-05	*458*	*257.3*
Dec-05	*990*	*454.8*
Jan-06	*786*	*293.1*
Feb-06	*865*	*327.8*

LEGEND
Estimated Use -- 1034
Post-Reader Use -- *990*



Graph 2 -- Double Mass Curve Analysis

Month	HDD	Therms	Cum HDD	Cum Therms
Apr-02	234	57.4	234	57.4
May-02	120	24.5	354	81.9
Oct-02	338	48.8	692	130.7
Nov-02	620	148.8	1312	279.5
Dec-02	847	209.1	2159	488.6
Jan-03	1135	265.7	3294	754.3
Feb-03	937	229.4	4231	983.7
Mar-03	536	125.4	4767	1109.1
Oct-03	176	46.1	4943	1155.2
Nov-03	470	111	5413	1266.2
Dec-03	812	214.2	6225	1480.4
Jan-04	965	237.2	7190	1717.6
Feb-04	1040	246.9	8230	1964.5
Mar-04	459	123.7	8689	2088.2
Apr-04	283	82.5	8972	2170.7
May-04	55	26.7	9027	2197.4
Oct-04	172	52.9	9199	2250.3
Nov-04	295	85	9494	2335.3
Dec-04	783	84.5	10277	2419.8
Jan-05	1034	260.1	11311	2679.9
Feb-05	771	196.3	12082	2876.2
Mar-05	732	188.5	12814	3064.7
Apr-05	174	56.4	12988	3121.1
Oct-05	107	38.8	13095	3159.9
Nov-05	*458*	*257.3*	*13553*	*3417.2*
Dec-05	*990*	*454.8*	*14543*	*3872*
Jan-06	*786*	*293.1*	*15329*	*4165.1*
Feb-06	*865*	*327.8*	*16194*	*4492.9*



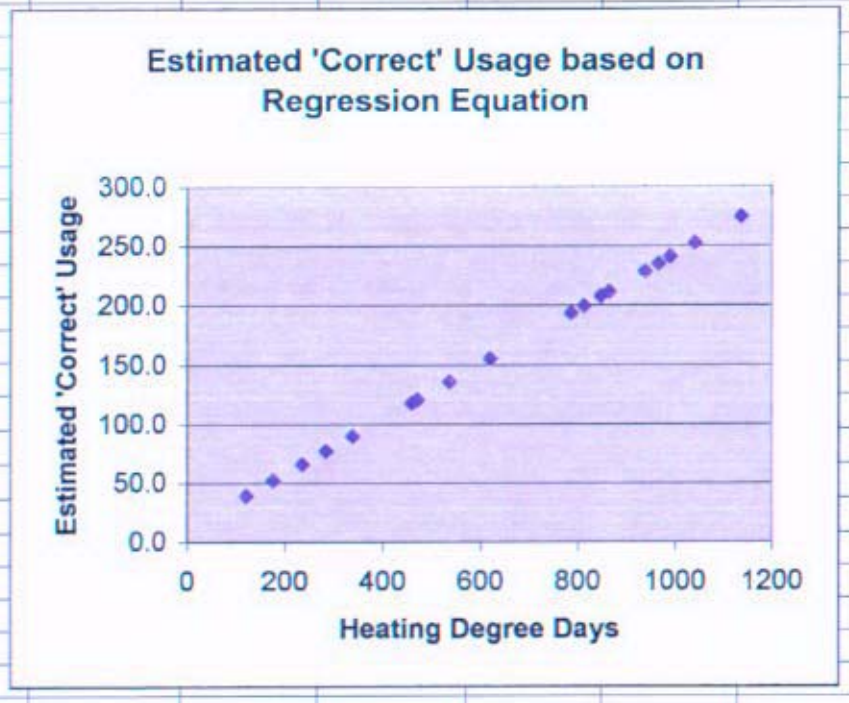
LEGEND
Estimated Use -- 1034
Post-Reader Use -- 990

Table 3 -- CORRECT USAGE/CHARGES BASED ON REGRESSION EQUATION

Month	HDD	Therms	HDD	Therms (Y)
Apr-02	234	57.4	234	65.7
May-02	120	24.5	120	39.3
Oct-02	338	48.8	338	89.8
Nov-02	620	148.8	620	155.1
Dec-02	847	209.1	847	207.6
Jan-03	1135	265.7	1135	274.3
Feb-03	937	229.4	937	228.4
Mar-03	536	125.4	536	135.6
Oct-03	176	46.1	176	52.3
Nov-03	470	111	470	120.3
Dec-03	812	214.2	812	199.5
Jan-04	965	237.2	965	234.9
Feb-04	1040	246.9	1040	252.3
Mar-04	459	123.7	459	117.8
Apr-04	283	82.5	283	77.0
Nov-05	458	*257.3*	458	117.6
Dec-05	990	*454.8*	990	240.7
Jan-06	786	*293.1*	786	193.5
Feb-06	865	*327.8*	865	211.8

REGRESSION EQUATION

Y = 136.705263 + 0.23150 (X - 540.736842)



LEGEND

Correct Estimated Usage -- 1034

Incorrect Post-Reader Usage -- 990

Month	Billing Mo.	HDD	Incorrect Therms	HDD	Correct Therms (Y)	Incorrecly Billed	Correct Charge	Overcharge	Payments	Net Due
Nov-05	Dec-05	458	*257.3*	458	117.6	$ 310	$ 142	$ 168	$ 310	$ (142)
Dec-05	Jan-06	990	*454.8*	990	240.7	$ 660	$ 349	$ 311	$ 330	$ (19)
Jan-06	Feb-06	786	*293.1*	786	193.5	$ 420	$ 277	$ 143	$ 210	$ (67)
Feb-06	Mar-06	865	*327.8*	865	211.8	$ 448	$ 289	$ 159	$ -	$ 159
					TOTALS	**$ 1,838**	**$ 1,057**	**$ 781**	**$ 850**	**$ (69)**

Table 1 -- Raw Data -- Four-Year Record of Gas Usage at 7330 Maple Avenue, 63143

Degree Days	Therms Used	2002
--	--	Jan.
--	--	Feb.
--	--	Mar.
234	57.4	April
120	24.5	May
--	--	June
--	--	July
--	--	Aug.
--	--	Sept.
338	48.8	Oct.
620	148.8	Nov.
847	209.1	Dec.

Degree Days	Therms Used	2003
1135	265.7	Jan.
937	229.4	Feb.
536	125.4	Mar.
--	--	April
--	--	May
--	--	June
--	--	July
--	--	Aug.
--	--	Sept.
176	46.1	Oct.
470	111	Nov.
812	214.2	Dec.

Degree Days	Therms Used	2004
965	237.2	Jan.
1040	246.9	Feb.
459	123.7	March
283	82.5	April
55(E)	26.7	May
(E)	--	June
(E)	--	July
(E)	--	Aug.
(E)	--	Sept.
172(E)	52.9	Oct.
295(E)	85	Nov.
783(E)	84.5	Dec.

Degree Days	Therms Used	2005
1034(E)	260.1	Jan.
771(E)	196.3	Feb.
732(E)	188.5	Mar.
174(E)	56.4	April
		May
		June
Reader installed		July
		Aug.
--	--	Sept.
107(E)	38.8	Oct.
458	237.3	Nov.
990	454.8	Dec.

Degree Days	Therms Used	2006
786	293.1	Jan.
865	227.8	Feb.
Meter/Reader replaced--2/17/06		
		Mar.
		April
		May
		June
		July
		Aug.
		Sept.
		Oct.
		Nov.
		Dec.

Comparable to 458 degree days in November, 2005
Comparable to 990 degree days in December, 2005
Comparable to 786 degree days in January, 2006
Comparable to 865 degree days in February, 2006

Green Shading shows months in dispute – their degree days and therm usage!!.
Note: Old outside meter reader stopped working April, 2004. "Estimated" used from May 2004 until June 2005. Remote reader installed July 2005. New meter and remote reader installed 2/17/2006.
In June 2005, we were reimbursed **$1,362.77** because the estimates from May 2004 to May 2005 were way over actual usage.

Table 2 -- Rank Order

Monthly Data Sorted into Rank Order based on HDD

Month	HDD	Therms
May-04	55	26.7
Oct-05	107	38.8
May-02	120	24.5
Oct-04	172	52.9
Apr-05	174	56.4
Oct-03	176	46.1
Apr-02	234	57.4
Apr-04	283	82.5
Nov-04	295	85
Oct-02	338	48.8
Nov-05	*458*	*257.3*
Mar-04	459	123.7
Nov-03	470	111
Mar-03	536	125.4
Nov-02	620	148.8
Mar-05	732	188.5
Feb-05	771	196.3
Dec-04	783	84.5
Jan-06	*786*	*293.1*
Dec-03	812	214.2
Dec-02	847	209.1
Feb-06	*865*	*327.8*
Feb-03	937	229.4
Jan-04	965	237.2
Dec-05	*990*	*454.8*
Jan-05	1034	260.1
Feb-04	1040	246.9
Jan-03	1135	265.7

LEGEND

Estimated Use -- 1034

Post-Reader Use -- 990

Lynne P. and Sherman N. Shewmaker
7330 Maple Avenue
Maplewood, MO 63143
PH 314-781-7678

April 11, 2006

Laclede Gas Company
ATTN: Mr. George Csolak
720 Olive Street
St. Louis, Missouri 63101
PH 314-342-0500

Re: Account # 445141-001-2
Property: 7330 Maple Avenue, St. Louis, MO 63143

Dear Mr. Csolak:

Let us bring you up-to-date. Please refer to our letter, graphs, and spreadsheets of March 3, 2006 and to the updated spreadsheets enclosed in this letter. Our March bill has confirmed our analysis that something was drastically wrong with the remote reader which was first installed in July 2005. After March 3, 2006 we sent in a payment of $225.00 for the contested February bill. The enclosed spreadsheets show that, to date, we only owe Laclede Gas $199, and therefore we enclose a check for this amount.

Please refer to the enclosed "Table 3" (see the NOTE at the bottom of the spreadsheet). We have added charges/payments/etc. through the last (April 06) bill. Included below are the totals from that spreadsheet.

Incorrectly Billed	Correct Charge	Overcharge	Payments	Net Due
$ 2,079	$ 1,274	$ 805	$ 1,274	$ -

You have never responded to our letter and analysis of March 3, 2005. We believe that our analysis is correct and that with this payment the arrearage on our bill is moot and that the continued Laclede Gas' threats of disconnection should end.

Also, for this reason we demand that the second reader installed in February 2006 (along with a new meter) be removed from the meter. We will send in cards each month. We do not wish to undergo any more stress regarding the malfunctioning of any of your readers. Our first reader, installed in July 2005, was one of the first installed in St. Louis County.

With the enclosed check and our explanation here, we consider our payments on-time and the balance due on our account as zero. We believe this matter is concluded, provided you remove the reader from our meter as we have requested and billing does not fall back into incorrectly overcharging us for our gas usage.

Sincerely,

Lynne P. Shewmaker

Lynne P. and Sherman N. Shewmaker

Table 1 -- Raw Data -- Four-Year Record of Gas Usage at 7330 Maple Avenue, 63143

Degree Days	Therms Used	2002
--	--	Jan.
--	--	Feb.
--	--	Mar.
234	57.4	April
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--	--	June
--	--	July
--	--	Aug.
--	--	Sept.
338	48.8	Oct.
620	148.8	Nov.
847	209.1	Dec.

Degree Days	Therms Used	2003
1135	265.7	Jan.
937	229.4	Feb.
536	125.4	Mar.
--	--	April
--	--	May
--	--	June
--	--	July
--	--	Aug.
--	--	Sept.
176	46.1	Oct.
470	111	Nov.
812	214.2	Dec.

Degree Days	Therms Used	2004
965	237.2	Jan.
1040	246.9	Feb.
459	123.7	March
283	82.5	April
55(E)	26.7	May
(E)	--	June
(E)	--	July
(E)	--	Aug.
(E)	--	Sept.
172(E)	52.9	Oct.
295(E)	85	Nov.
783(E)	84.5	Dec.

Degree Days	Therms Used	2005
1034(E)	260.1	Jan.
771(E)	196.3	Feb.
732(E)	188.5	Mar.
174(E)	56.4	April
		May
		June
Reader Installed		July
		Aug.
--	--	Sept.
107(E)	38.8	Oct.
458	257.3	Nov.
990	454.8	Dec.

Degree Days	Therms Used	2006
786	293.1	Jan.
865	327.8	Feb.
Meter/Reader replaced--2/17/06		
615	170.8	Mar.
		April
		May
		June
		July
		Aug.
		Sept.
		Oct.
		Nov.
		Dec.

Comparable to 458 degree days in November, 2005
Comparable to 990 degree days in December, 2005
Comparable to 786 degree days in January, 2006
Comparable to 865 degree days in February, 2006

Comparable to 615 degree days in March, 2006

Green Shading shows months in dispute -- their degree days and therm usage!!.

Note: Old outside meter reader stopped working April, 2004. "Estimated" used from May 2004 until June 2005. Remote reader installed July 2005. New meter and remote reader installed 2/17/2006.
In June 2005, we were reimbursed $1,362.77 because the estimates from May 2004 to May 2005 were way over actual usage.

Table 2 -- Rank Order

Monthly Data Sorted into Rank Order based on HDD

Month	HDD	Therms
May-04	55	26.7
Oct-05	107	38.8
May-02	120	24.5
Oct-04	172	52.9
Apr-05	174	56.4
Oct-03	176	46.1
Apr-02	234	57.4
Apr-04	283	82.5
Nov-04	295	85
Oct-02	338	48.8
Nov-05	*458*	*257.3*
Mar-04	459	123.7
Nov-03	470	111
Mar-03	536	125.4
Mar-06	*615*	*170.8*
Nov-02	620	148.8
Mar-05	732	188.5
Feb-05	771	196.3
Dec-04	783	84.5
Jan-06	*786*	*293.1*
Dec-03	812	214.2
Dec-02	847	209.1
Feb-06	*865*	*327.8*
Feb-03	937	229.4
Jan-04	965	237.2
Dec-05	*990*	*454.8*
Jan-05	1034	260.1
Feb-04	1040	246.9
Jan-03	1135	265.7

LEGEND

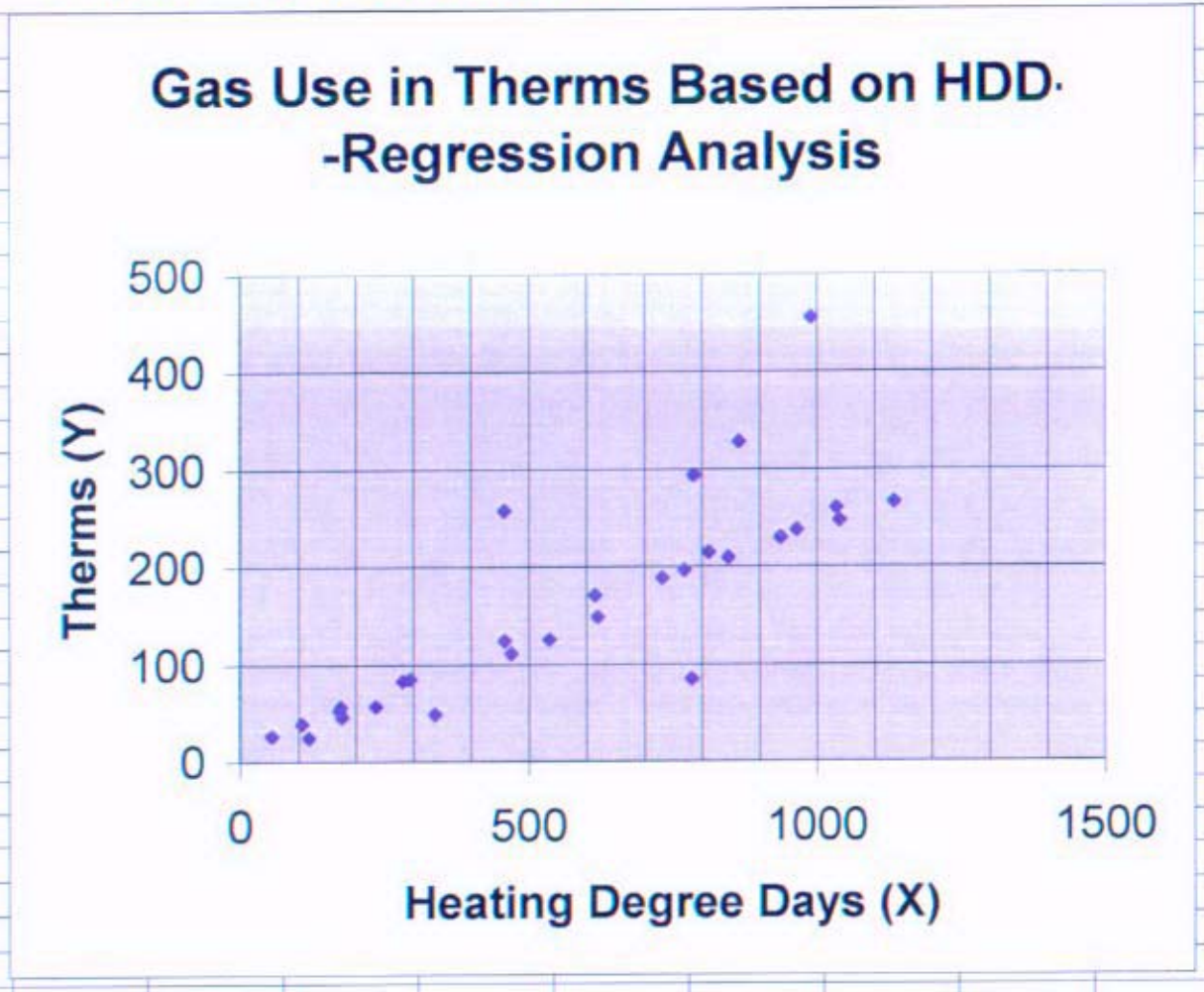
Estimated Use -- 1034

Post-Reader Use -- *990*

Graph 1 -- Regression Analysis

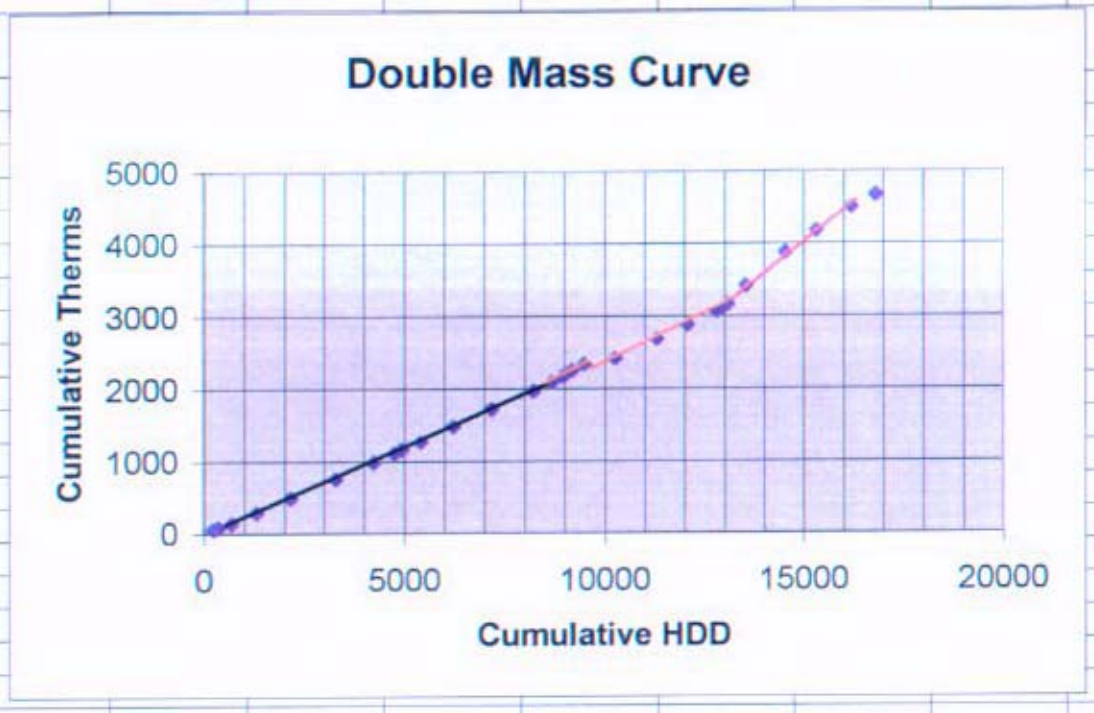
Month	HDD	Therms
Apr-02	234	57.4
May-02	120	24.5
Oct-02	338	48.8
Nov-02	620	148.8
Dec-02	847	209.1
Jan-03	1135	265.7
Feb-03	937	229.4
Mar-03	536	125.4
Oct-03	176	46.1
Nov-03	470	111
Dec-03	812	214.2
Jan-04	965	237.2
Feb-04	1040	246.9
Mar-04	459	123.7
Apr-04	283	82.5
May-04	55	26.7
Oct-04	172	52.9
Nov-04	295	85
Dec-04	783	84.5
Jan-05	1034	260.1
Feb-05	771	196.3
Mar-05	732	188.5
Apr-05	174	56.4
Oct-05	107	38.8
Nov-05	*458*	*257.3*
Dec-05	*990*	*454.8*
Jan-06	*786*	*293.1*
Feb-06	*865*	*327.8*
Mar-06	*615*	*170.8*

LEGEND
Estimated Use -- 1034
Post-Reader Use -- *990*



Graph 2 -- Double Mass Curve Analysis

Month	HDD	Therms	Cum HDD	Cum Therms
Apr-02	234	57.4	234	57.4
May-02	120	24.5	354	81.9
Oct-02	338	48.8	692	130.7
Nov-02	620	148.8	1312	279.5
Dec-02	847	209.1	2159	488.6
Jan-03	1135	265.7	3294	754.3
Feb-03	937	229.4	4231	983.7
Mar-03	536	125.4	4767	1109.1
Oct-03	176	46.1	4943	1155.2
Nov-03	470	111	5413	1266.2
Dec-03	812	214.2	6225	1480.4
Jan-04	965	237.2	7190	1717.6
Feb-04	1040	246.9	8230	1964.5
Mar-04	459	123.7	8689	2088.2
Apr-04	283	82.5	8972	2170.7
May-04	55	26.7	9027	2197.4
Oct-04	172	52.9	9199	2250.3
Nov-04	295	85	9494	2335.3
Dec-04	783	84.5	10277	2419.8
Jan-05	1034	260.1	11311	2679.9
Feb-05	771	196.3	12082	2876.2
Mar-05	732	188.5	12814	3064.7
Apr-05	174	56.4	12988	3121.1
Oct-05	107	38.8	13095	3159.9
Nov-05	*458*	*257.3*	*13553*	*3417.2*
Dec-05	*990*	*454.8*	*14543*	*3872.0*
Jan-06	*786*	*293.1*	*15329*	*4165.1*
Feb-06	*865*	*327.8*	*16194*	*4492.9*
Mar-06	*615*	*170.8*	*16809*	*4663.7*



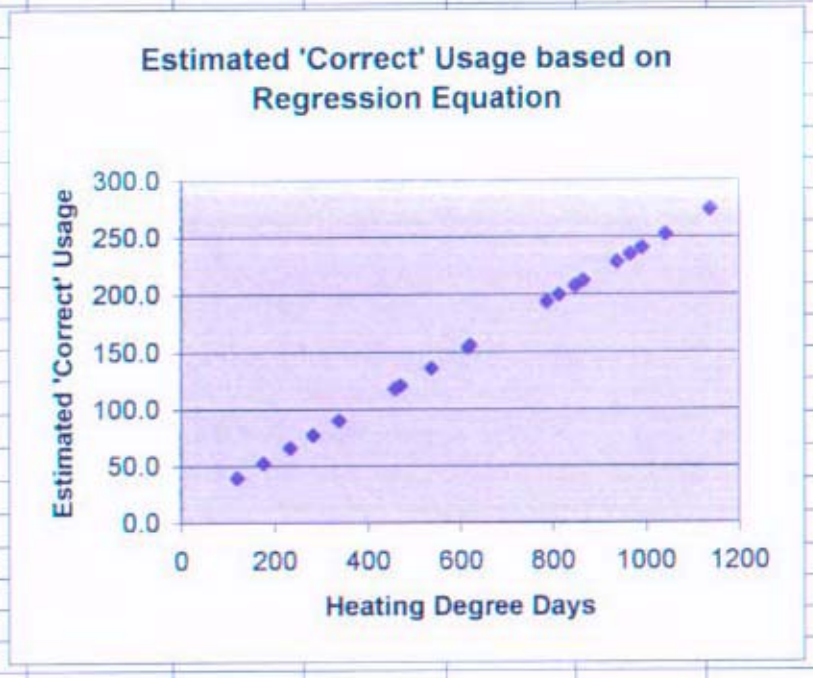
LEGEND
Estimated Use -- 1034
Post-Reader Use -- *990*

Table 3 -- CORRECT USAGE/CHARGES BASED ON REGRESSION EQUATION

Month	HDD	Therms	HDD	Therms (Y)
Apr-02	234	57.4	234	65.7
May-02	120	24.5	120	39.3
Oct-02	338	48.8	338	89.8
Nov-02	620	148.8	620	155.1
Dec-02	847	209.1	847	207.6
Jan-03	1135	265.7	1135	274.3
Feb-03	937	229.4	937	228.4
Mar-03	536	125.4	536	135.6
Oct-03	176	46.1	176	52.3
Nov-03	470	111	470	120.3
Dec-03	812	214.2	812	199.5
Jan-04	965	237.2	965	234.9
Feb-04	1040	246.9	1040	252.3
Mar-04	459	123.7	459	117.8
Apr-04	283	82.5	283	77.0
Nov-05	458	*257.3*	458	**117.6**
Dec-05	990	*454.8*	990	**240.7**
Jan-06	786	*293.1*	786	**193.5**
Feb-06	865	*327.8*	865	**211.8**
Mar-06	615	*170.8*	615	153.9

REGRESSION EQUATION

Y = 136.705263 + 0.23150 (X - 540.736842)



LEGEND

Correct Estimated Usage -- 1034

Incorrect Post-Reader Usage -- *990*

Month	Billing Mo.	HDD	Incorrect Therms	HDD	Correct Therms (Y)	Incorrectly Billed	Correct Charge	Overcharge	Payments	Net Due
Nov-05	Dec-05	458	*257.3*	458	117.6	$ 310	$ 142	$ 168	$ 310	$ (168)
Dec-05	Jan-06	990	*454.8*	990	240.7	$ 660	$ 349	$ 311	$ 330	$ 19
Jan-06	Feb-06	786	*293.1*	786	193.5	$ 420	$ 277	$ 143	$ 210	$ 67
Feb-06	Mar-06	865	*327.8*	865	211.8	$ 448	$ 289	$ 159	$ 225	$ 64
Mar-06	Apr-06	615	*170.8*	615	153.9	$ 241	$ 217	$ 24	$ 199	$ 18
					TOTALS	**$ 2,079**	**$ 1,274**	**$ 805**	**$ 1,274**	**$ -**

NOTE: In the last version of the spreadsheet, "Net Due" was incorrectly computed ("Payments" was subtracted from "Overcharge". In this version "Net Due" has been correctly computed ("Payments" was subtracted from "Correct Charge".)