Exhibit No.:	
Issues:	*Transportation and Mainline Capacity Usage Factors*
Witness:	*Lesa Jenkins*
Sponsoring Party:	*MoPSC Staff*
Type of Exhibit:	*Surrebuttal Testimony*
Case No.:	*GR-2014-0086*
Date Testimony Prepared:	*August 8, 2014*

MISSOURI PUBLIC SERVICE COMMISSION

REGULATORY REVIEW
UTILITY SERVICES
PROCUREMENT ANALYSIS

SURREBUTTAL TESTIMONY

OF

LESA JENKINS

SUMMIT NATURAL GAS OF MISSOURI, INC.

CASE NO. GR-2014-0086

Jefferson City, Missouri
August 2014

SURREBUTTAL TESTIMONY OF

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CASE NO. GR-2014-0086

SURREBUTTAL TESTIMONY OF

LESA JENKINS

SUMMIT NATURAL GAS OF MISSOURI, INC.

CASE NO. GR-2014-0086

Q. Please state your name and business address.

A. Lesa Jenkins, P.O. Box 360, Jefferson City, MO 65102.

Q. By whom are you employed and in what capacity?

A. Procurement Analysis Unit, Utility Services Department with the Missouri Public Service Commission.

Q. Are you the same Lesa Jenkins that sponsored portions of Staff's Class Cost-Of-Service Report in this case addressing miscellaneous tariff issues pertaining to transportation service and Missouri school program transportation service and filed rebuttal testimony on the same issues?

A. Yes, I am.

Q. Did you sponsor any schedules attached to the Staff's Class Cost-Of-Service Report?

A. Yes. Schedule LJ-1 contained my credentials and a list of cases in which I have previously filed testimony or Staff recommendations as well as the issues that I have addressed in testimony. Additionally, Schedule LJ-2, a standard form for the pool operator agreement was attached.

Q. Did you sponsor any schedules attached to your rebuttal testimony?

A. Yes. Schedule LJ-3 contained recommended revision to SNG proposed tariff, SNG Original Sheet No. 36, 1st Revised Sheet No. 29A and Original Sheet No. 37, 1st Revised Sheet No. 30. Additionally, Schedule LJ-4 contained copies of DR responses.

EXECUTIVE SUMMARY

Q. Please state the purpose of your surrebuttal testimony in this case.

A. The purpose of my surrebuttal testimony is to respond to the rebuttal testimonies of Kent Taylor and Renato Nitura Jr. for Summit Natural Gas of Missouri, Inc., ("SNG") and the rebuttal testimony of Louie Ervin Sr. for the Missouri School Boards' Association (MSBA) related to transportation tariff issues. In summary, Mr. Ervin proposed a revision to Staff's clarification of capacity release for school transportation and Staff has attempted to incorporate some of that revision. Staff does not oppose the imbalance tiers proposed by SNG, but Staff continues to recommend a different monthly imbalance cashout methodology than the methodology proposed by SNG. If Staff's cashout methodology is accepted, Staff does not oppose MSBA's proposal to cashout school transportation customer imbalances at the Tier-1 charge. Additionally, Staff continues to recommend that SNG monitor its transportation customers' monthly imbalances to ensure that the tiers provide the proper incentive for all transportation customers to modify nominations to stay in balance.

Q. Please state any other purpose of your surrebuttal testimony in this case.

A. The purpose of my surrebuttal testimony is also to provide data to support Staff witness Amanda McMellen's surrebuttal testimony related to SNG's mainline capacity usage factor.

RELEASE OF TRANSPORTATION CAPACITY TO SCHOOL TRANSPORTATION CUSTOMERS

Q. What are the differences in the testimonies regarding capacity release to school transportation customers?

A. Staff describes the issue and recommendation for capacity release to school transportation customers in the Staff Report Class Cost-of-Service.[1] Staff recommended the following:

> To the extent that the Company has excess capacity available that may be released, any capacity released by the Company to the Pool Operator will be non-recallable for the term of the agreement. Any capacity released by the Company to the Pool Operator will be released at the full demand rate charged by the upstream pipeline and the Pool Operator is directly responsible for any commodity related charges imposed by the upstream pipeline.

SNG indicates it agrees with Staff recommendation.[2] MSBA offers the following alternative.[3]

> The issue may be semantic, but Staff's position is that "If capacity is excess then it may be released…" MSBA's position is that Company has capacity when a school is a retail sales customer and should be required to release it to the schools if requested, which is consistent with Section 393.310 RSMo. Company has said that it could be harmed if the schools can pick and choose when or if they want to take the release for only one year when the Company contracts for capacity on a multi-year basis. MSBA has modified its position to a compromise whereby the Company first offers to the schools the first right of refusal to purchase the capacity at the price and for the term which the Company has contracted for said pipeline capacity.

The concern is whether SNG will continue to hold capacity for schools in the event that the school transportation customers decide, in any year, not to obtain the capacity from SNG. In the first year that schools became transportation customers, SNG had capacity to serve the

[1] Staff Report Class Cost-of-Service, page 16, line 23 through page 17, line 15.
[2] Taylor Rebuttal, Schedule KDT-1, page 4.
[3] Ervin Rebuttal, page 11, line 12 through page 12, line 4.

schools. Over time, the SNG capacity requirements will change, contracts will come up for renewal, and SNG may require additional capacity for its firm sales customers. If schools are allowed to obtain capacity in any year from another source, not from SNG, and SNG is left with the capacity it had held for school transportation, those costs will be passed on to the SNG firm sales customers. When SNG signs a transportation contract, the term is not necessarily limited to one year. If schools want SNG to continue to hold capacity to serve school transportation customers, SNG must be assured that school transportation customers are paying for the full cost of that capacity and that firm sales customers do not bear the risk of those capacity costs in future periods.

Staff can accept the general description offered by Mr. Ervin, but is concerned that Mr. Ervin may be implying that SNG must always hold capacity for school transportation customers. SNG should not have to continually carry extra capacity for schools if schools or the designated pool operator turns down a capacity release offer and obtains capacity from a third party. Staff recommends SNG include the following language in its tariff:

> The Company will offer capacity release of interstate pipeline capacity to the Pool Operator for the school transportation customers. Any capacity released by the Company to the Pool Operator will be non-recallable for the term of the agreement. Any capacity released by the Company to the Pool Operator will be released for the remaining term of the SNG agreement with the interstate pipeline, at the full demand rate charged by the interstate pipeline and the Pool Operator is directly responsible for any commodity related charges imposed by the interstate pipeline.
>
> Once the Pool Operator, on the schools' behalf, does not accept a capacity release from SNG for school transportation, SNG will no longer have the obligation to release pipeline capacity to those customers or pool operators.

CASHOUT OF MONTHLY IMBALANCES OF TRANSPORTATION CUSTOMERS

Q. What are the differences in the testimonies regarding cashout of monthly transportation customer imbalances?

A. There are two issues related to cashout of monthly transportation customer imbalances. One issue pertains to the use of tiers in the calculation of the monthly imbalance cashout. The second issue pertains to the cashout price determinant (d) proposed by SNG to be used in the cashout calculation.

Q. What are the differences in the testimonies regarding use of tiers in the calculation of the monthly imbalance cashout?

A. Mr. Ervin disagrees with the use of multiple tiers for school transportation customers.[4] Mr. Ervin recommends school transportation customers be cashed out in Tier-1. SNG accepts the Tier 1 cash-out for school transportation customers.[5] Staff's rebuttal testimony accepted the Tier 1 cashout for schools with certain clarifications and recommendations.[6]

One of the Staff clarifications pertained to the cashout price determinant methodology which will be addressed in a separate question and answer. Staff continues to recommend the clarifications and recommendation from Jenkins' rebuttal testimony as follows:

> Staff recommended that SNG monitor school imbalances to determine whether a Tier-1 cashout provides the appropriate incentive for the schools to minimize their monthly imbalances.[7]
>
> If such a revision is made, SNG must clarify the Tier-1 cashout provision for school transportation customers in its proposed tariff, Original Sheet No. 47, cancelling Original Sheet No. 41

[4] Ervin Rebuttal, page 5, line 10 through page 6, line 3.
[5] Taylor Rebuttal, Schedule KDT-1, page 1, Issue 2.
[6] Jenkins Rebuttal, page 10, lines 4 through 18.
[7] Jenkins Rebuttal, page 10, lines 7 through 9.

> in the Missouri School Program Transportation Service Rate Schedule, Section 4., pertaining to Shipper(s) Balancing Obligation. [8]

Q. Mr. Ervin's testimony states that Company and MSBA agree that schools are to be cashed out in Tier-1 because currently all transporting schools on the Company system are not required to have daily telemetry, but instead are monthly metered.[9] Do you agree with this statement?

A. No. For school transportation customers, only those with meters over one hundred thousand therms annually (10,000 dekatherms/year) require daily telemetry.[10] However, the statute pertaining to school transportation does not prohibit schools from having daily telemetry. To manage a facility's utility costs, facility managers will often find access to daily usage data to be helpful in identifying cost reduction opportunities. Access to daily data may be cost effective if it helps improve the natural gas supply planning to reduce costs, such as those associated with large imbalances.

The statute does not specifically address cashout of transportation imbalances.

However the statute does state the following:

> The commission may suspend the tariff as required pursuant to subsection 3 of this section for a period ending no later than November 1, 2002, and shall approve such tariffs upon finding that implementation of the aggregation program set forth in such tariffs will not have any negative financial impact on the gas corporation, its other customers or local taxing authorities, and that the aggregation charge is sufficient to generate revenue at least equal to all incremental costs caused by the experimental aggregation program.[11] (Emphasis added)

[8] Jenkins Rebuttal, page 10, lines 10 through 13.
[9] Ervin Rebuttal, page 5, lines 11 through 13.
[10] Section 393.310.4(3) RSMo and as discussed in Staff's Class Cost-Of-Service Report, Witness Kim Cox, page 21, lines 28-29 through page 22. lines 1-7.
[11] Section 393.310.5 RSMo.

Should SNG later support that a Tier-1 cashout does not provide appropriate incentive for the schools to minimize their monthly imbalances, Staff will review such findings.

Q. What are the differences in the testimonies regarding the cashout price determinant proposed to be used in the imbalance cashout calculation?

A. SNG's proposed tariff revision references a cashout price determinant that is based on the higher or lower of the following:[12]

- Beginning Storage Weighted Average Cost of Gas (WACOG) as calculated by Company for the Delivery Month
- Actual Purchase WACOG for the Delivery Month as calculated by the Company
- Currently in effect Purchases Gas Adjustment (PGA)

Mr. Nitura's rebuttal testimony also explains SNG's proposed cashout price determinant.[13]

Staff does not support the cashout price determinant proposed by SNG to be used in the cashout calculation. The explanation is provided Staff's Rebuttal.[14]

Mr. Ervin recommends a monthly index for the cashout price determinant.[15] Mr. Ervin's rebuttal testimony references the MGE tariff cashout provisions.

For the SNG system, Staff does not support a monthly index price for the cashout price determinant. Although SNG's cashout calculation for all transportation customers is based on monthly imbalances, if transportation customers are not staying in balance, SNG may have to change its daily purchases of natural gas. Purchases of natural gas for one day or multiple days (purchases of less than an entire month) are often based on a daily index price. Daily priced natural gas can have a much higher cost than a monthly index price.

[12] SNG Proposed Tariff Sheet Revisions, filed as Original Sheet No. 36, Cancelling 1st Revised Sheet No. 29A.
[13] Nitura Rebuttal, page 3, line 8 through page 4, line 10.
[14] Jenkins Rebuttal, page 6, line 1 through page 7, line 6.
[15] Ervin Rebuttal, page 6, lines 11 through page 7, line 5.

Staff recommends the cashout price determinant be based on a published index price that more reasonably reflects the price of natural gas that SNG may have to purchase to cover the transportation imbalances. Staff's recommendation for the cashout price determinant is in rebuttal testimony.[16]

MAINLINE CAPACITY USAGE

Q. Please explain the issue related to mainline capacity usage.

A. Staff witness Amanda McMellen uses a mainline capacity usage factor to adjust the revenue requirement for the Warsaw and Branson service areas. The following surrebuttal testimony provides supporting information for the mainline capacity usage factor for the Warsaw and Branson service areas.

Q. What are the SNG mainline capacity usage factors?

A. SNG reports mainline capacity usage factors of 36.08 percent and 18.82 percent, respectively, for the Warsaw and Branson areas. To obtain the mainline capacity usage factors, SNG provides estimates of peak day requirements and mainline capacity for each of the Warsaw and Branson areas, as shown in the SNG supplemental responses to DR Nos. 232 and 233, attached as Schedules LJ-5 and LJ-6. SNG divides the estimate of peak day by the mainline capacity to obtain its estimates of mainline capacity usage factors.

Q. Does Staff support these mainline capacity usage factors?

A. No. Staff supports mainline capacity usage factors of 43.29 percent and 21.44 percent, respectively, for the Warsaw and Branson areas. These mainline capacity usage factors represent the percentage of mainline capacity that is required for reasonable peak day requirements for the Branson and Warsaw areas. Although Staff is calculating the mainline

[16] Jenkins Rebuttal, page 7, lines 8 through page 8 line 2, and Jenkins Rebuttal, Schedule LJ-3.

capacity usage factors in this case, Staff is making no policy recommendations as to whether it is appropriate to allocate mainline capacity based on peak day requirements.

Q. How does Staff obtain different estimates from that of SNG?

A. Staff review of available information from SNG reveals that the SNG peak day estimates are understated. Staff estimates of peak day requirements are greater than those of SNG because Staff's peak day estimates included consideration of the variability of peak day estimate. Staff estimates of peak day requirements are attached as Schedule LJ-7.

Staff review of SNG's estimates of mainline capacity is limited because Staff does not have a license for the "GASWorkS" software used by SNG to estimate mainline capacity for the Branson and Warsaw areas. Staff confirmed that the SNG mainline capacity values match the values in the SNG GASWorkS analysis output sheets.[17] Staff conducted a reasonableness check of the SNG mainline capacity estimates using available data in a limited Excel spreadsheet analysis. Staff proposes no adjustment to the SNG mainline capacity estimates.

To obtain the mainline capacity usage factors, Staff uses the same formula as SNG. Staff divides the estimate of peak day by the mainline capacity to obtain mainline capacity usage factors of 43.29 percent and 21.44 percent, respectively, for the Warsaw and Branson areas, as summarized in Schedule LJ-7.

Q. Does this conclude your surrebuttal testimony?

A. Yes it does.

[17] "GASWorkS" is a Computers & Engineering software modeling tool designed to assist in the analysis and design of distribution, transmission, gathering, and plant piping systems conveying natural gas or other compressible fluids.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Summit Natural Gas of Missouri Inc.'s Filing of Revised Tariffs To Increase its Annual Revenues For Natural Gas Service	))))	Case No. GR-2014-0086

AFFIDAVIT OF LESA JENKINS

STATE OF MISSOURI)
) ss.
COUNTY OF COLE)

Lesa Jenkins, of lawful age, on her oath states: that she has participated in the preparation of the foregoing Surrebuttal Testimony in question and answer form, consisting of 9 pages to be presented in the above case; that the answers in the foregoing Surrebuttal Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of her knowledge and belief.

Lesa A. Jenkins
Lesa Jenkins

Subscribed and sworn to before me this 7th day of August, 2014.

D. SUZIE MANKIN
Notary Public - Notary Seal
State of Missouri
Commissioned for Cole County
My Commission Expires: December 12, 2016
Commission Number: 12412070

D Suzie Mankin
Notary Public

Summit Natural Gas of Missouri, Inc.
GR-2014-0086

Missouri Public Service Commission

Respond Data Request

Data Request No.	0232
Company Name	Summit Natural Gas of Missouri, Inc.-Investor(Gas)
Case/Tracking No.	GR-2014-0086
Date Requested	8/1/2014
Issue	Expense - Operations - Gas Supply Planning/Reliability
Requested From	Martha Wankum
Requested By	John Borgmeyer
Brief Description	Short-term and long-term peak day requirements for Warsaw and Branson
Description	For the LDCs planning for peak day requirements for the Warsaw and Branson service areas, please provide fully functioning electronic spreadsheets and workpapers (in Excel, if possible), including source data and output data that contains the following: a. The most recent forecasting model and all formulas, data, regression inputs and outputs and worksheets feeding into this model to establish the peak day requirements for the Company's retail sales customers (in Excel, if possible) for each of the Warsaw and Branson service areas. Additionally, please describe the source of this data; b. If part "a" does not include data for the 2013/2014 winter, please provide daily data for each of the Warsaw and Branson areas including, town border station (TBS) usage data, transport TBS usage data including any adjustments for fuel or L&U, customer count for firm sales customers, usage per customer, and heating degree day data. c. The Company's estimated peak day demand for its transportation customers in each of the Warsaw and Branson service areas. Please provide all relevant forecasting models and all formulas, data, and worksheets feeding into this model to establish the peak day requirements for the Company's transportation customers (in Excel, if possible) for each of the Warsaw and Branson service areas. d. Heating degree day data that the Company used for its forecasts in each of the Warsaw and Branson service areas. Additionally, please describe the source of this data; e. The estimated number of retail sales and transportation customers in each of the Warsaw and Branson service areas that the forecasting model is based on. Additionally, please describe the source of this data; f. The Company's projected annual growth in number of retail sales and transportation customers for the next five years for each the Warsaw and Branson service areas. Additionally, please describe the source of this data and the estimation methodology; g. The number of retail sales customers and the number of transportation customers by month for December through March for 2013/2014. DR Requested by: Lesa Jenkins (Lesa.Jenkins@psc.mo.gov) and Kathleen McNelis (Kathleen.McNelis@psc.mo.gov).
Response	Please see the attached document that is being filed as a supplemental response to DR0232. Attachment DR0232 Account 105 Transfer Calculations rev KDT 8-6-14 Response Provided by: Kent Taylor
Objections	NA

Summit Natural Gas of Missouri, Inc.
GR-2014-0086

The attached information provided to **Missouri Public Service Commission** Staff in response to the above data information request is accurate and complete, and contains no material misrepresentations or omissions, based upon present facts of which the undersigned has knowledge, information or belief. The undersigned agrees to immediately inform the **Missouri Public Service Commission** if, during the pendency of Case No. **GR-2014-0086** before the Commission, any matters are discovered which would materially affect the accuracy or completeness of the attached information. If these data are voluminous, please (1) identify the relevant documents and their location (2) make arrangements with requestor to have documents available for inspection in the **Summit Natural Gas of Missouri, Inc.-Investor(Gas)** office, or other location mutually agreeable. Where identification of a document is requested, briefly describe the document (e.g. book, letter, memorandum, report) and state the following information as applicable for the particular document: name, title number, author, date of publication and publisher, addresses, date written, and the name and address of the person(s) having possession of the document. As used in this data request the term "document(s)" includes publication of any format, workpapers, letters, memoranda, notes, reports, analyses, computer analyses, test results, studies or data, recordings, transcriptions and printed, typed or written materials of every kind in your possession, custody or control or within your knowledge. The pronoun "you" or "your" refers to **Summit Natural Gas of Missouri, Inc.-Investor(Gas)** and its employees, contractors, agents or others employed by or acting in its behalf.

Security : Public

Rationale : NA

Summit Natural Gas of Missouri, Inc.
GR-2014-0086

surrebuttal testimony
Schedule TRJ-4
page 2 of 2

Summit Natural Gas of Missouri, Inc.
MPSC Case No. GR-2014-0086
Summit Settlement Proposal - Main Line Capacity Utilization Percentage Calculation

Line No	Particulars	Reference	Warsaw	Branson
	(a)	(b)	(c)	(d)
1	**Relevant pipe capacity (Mcf/day)**	note 1	6,288	15,240
	Relevant Peak day calculations			
	Warsaw			
	2012-2013 winter regression statistics			
2	base load per retail customer - Dt's	2013-14 Gas Supply Plan	0.0983	
3	retail usage per HDD - Dt's	2013-14 Gas Supply Plan	0.0241	
4	peak HDD'S - Sedalia WTP	2013-14 Gas Supply Plan	82	
5	test period total retail customer count	Rebuttal Schedule TDP-3	1,111	
6	peak retail usage in Dt's	(ln 4 * ln 3 + ln 2) * ln 5	2,301	
7	peak retail usage in Mcf at 1.014 BTU factor - 2013 PGA	ln 6 ÷ 1.014	2,269	
8	transportation customer usage	NA	-	
9	Mainline capacity usage factor	ln 7 ÷ ln 1	36.08%	
10	Mainline capacity reduction factor	1 - ln 9	63.92%	
	Branson			
	2013-2014 winter regression statistics			
11	base load per retail customer	2014-15 Gas Supply Plan		0.4018
12	retail usage per HDD	2014-15 Gas Supply Plan		0.0223
13	peak HDD'S	2014-15 Gas Supply Plan		73
14	test period total retail customer count	Rebuttal Schedule TDP-3		843
15	peak retail usage in Dt's	(ln 13 * ln 12 + ln 11) * ln 14		1,709
16	peak retail usage in Mcf at 1.025 BTU factor - 2013 PGA	ln 15 ÷ 1.025		1,667
17	transportation customer usage - Jan 6, 2014	imbalance management analysis		1,201
18	total usage in Mcf	ln 16 + ln 17		2,869
19	Mainline capacity usage factor	ln 18 ÷ ln 1		18.82%
20	Mainline capacity reduction factor	1 - ln 19		81.18%

Notes (1) capacity values taken from System Flow Diagrams attached

surrebuttal testimony
Schedule TRJ-4
page 1 of 2

Summit Natural Gas of Missouri, Inc.
MPSC Case No. GR-2014-0086
Summit Settlement Proposal - Account 105 Transfer from Warsaw and Branson

Line No	Particulars	References	SNG filed data at 9-31-13 Warsaw	SNG filed data at 9-31-13 Branson	Staff EMS runs 12-31-13 Warsaw	Staff EMS runs 12-31-13 Branson
	(a)	(b)	(c)	(d)	(e)	(f)
	Rate Base Adjustment					
	Gross Plant					
1	Account 101-376 - SNG as filed	as filed, TDP-2, exh 2	$ 12,821,542	$ 36,789,304	$ 13,310,226	$ 36,985,144
2	Account 101-378 - SNG as filed	as filed, TDP-2, exh 2	49,057	304,960	79,254	319,932
3	percent of account to acct 105	capacity percent tab	63.92%	81.18%	63.92%	81.18%
4	reduction to settlement gross plant - acct 101-376	line 10 * line 13	$ 8,195,144	$ 29,864,270	$ 8,507,496	$ 30,023,246
5	reduction to settlement gross plant - acct 101-378	line 11 * line 13	31,356	247,556	50,657	259,710
6	**total Gross Plant reduction**	line 4 + line 5	**$ 8,226,499**	**$ 30,111,827**	**$ 8,558,153**	**$ 30,282,956**
	Reserve for Depreciation				**Staff EMS**	
7	Account 108-376 - SNG as filed	as filed, TDP-2, exh 3	$ (912,293)	$ (1,932,841)	(1,090,989)	(2,117,624)
8	Account 108-378 - SNG as filed	as filed, TDP-2, exh 3	(3,422)	(6,667)	(6,823)	(8,242)
9	percent of account to acct 105	capacity percent tab	63.92%	81.18%	63.92%	81.18%
10	reduction to settlement RDA - acct 108-376	line 21 * line 24	$ (583,110)	$ (1,569,013)	$ (697,327)	$ (1,719,013)
11	reduction to settlement RDA - acct 108-378	line 22 * line 14	(2,187)	(5,412)	(4,361)	(6,691)
12	**total Reserve for Depreciation reduction**	line 10 + line 11	**$ (585,297)**	**$ (1,574,425)**	**$ (701,688)**	**$ (1,725,704)**

Summit Natural Gas of Missouri, Inc.
GR-2014-0086

Market Area 16949 (Branson)

January 2014

		0.97%				Allocation of Monthly Meters							
Day	Dth Nom	SMNG L&U	Conf. Dth	Usage Mcf	Btu Factor	Usage Dth	Allocated Amount	Total Usage - dth	Total Usage - Mcf				
1	1,055	(10)	1,045	870	1.0278	894	56	950	927				3.21%
2	1,055	(10)	1,045	981	1.0242	1,005	63	1,068	1042				3.61%
3	1,055	(10)	1,045	914	1.0258	937	58	995	971				3.36%
4	1,051	(10)	1,041	854	1.0276	877	55	932	909				3.15%
5	1,055	(10)	1,045	1,062	1.0266	1,090	68	1,158	1130				3.91%
6	986	(10)	976	1,131	1.0259	1,160	72	1,232	1201				4.16%
7	1,055	(10)	1,045	952	1.0265	977	61	1,038	1013				3.51%
8	1,055	(10)	1,045	904	1.0271	929	58	987	963				3.33%
9	1,055	(10)	1,045	880	1.0266	903	56	959	936				3.24%
10	1,035	(10)	1,025	805	1.0279	828	52	880	858				2.97%
11	1,023	(10)	1,013	817	1.0230	835	52	887	865				3.00%
12	940	(8)	932	664	1.0212	678	42	720	703				2.43%
13	983	(10)	973	742	1.0210	758	47	805	786				2.72%
14	1,036	(10)	1,026	820	1.0208	837	52	889	868				3.00%
15	1,085	(10)	1,075	843	1.0245	864	54	918	896				3.10%
16	1,060	(10)	1,050	825	1.0269	847	53	900	878				3.04%
17	1,085	(10)	1,075	915	1.0284	941	59	1,000	975				3.38%
18	1,066	(10)	1,056	816	1.0271	839	52	891	870				3.01%
19	1,005	(10)	995	731	1.0263	750	47	797	777				2.69%
20	1,020	(10)	1,010	764	1.0231	782	49	831	811				2.81%
21	1,085	(10)	1,075	945	1.0246	968	60	1,028	1003				3.47%
22	1,085	(10)	1,075	896	1.0230	917	57	974	950				3.29%
23	1,085	(10)	1,075	1,092	1.0252	1,120	70	1,190	1161				4.02%
24	1,085	(10)	1,075	907	1.0259	930	58	988	964				3.34%
25	1,085	(10)	1,075	812	1.0229	831	52	883	861				2.98%
26	1,085	(10)	1,075	763	1.0246	781	49	830	809				2.80%
27	1,061	(10)	1,051	1,019	1.0233	1,043	65	1,108	1081				3.74%
28	1,085	(10)	1,075	1,006	1.0257	1,032	64	1,096	1070				3.70%
29	1,085	(10)	1,075	898	1.0261	921	57	978	955				3.31%
30	1,085	(10)	1,075	792	1.0248	812	51	863	842				2.91%
31	1,085	(10)	1,075	761	1.0249	780	49	829	808				2.80%
Total	**32,671**	**(308)**	**32,363**	**27,181**	**1.0252**	**27,866**	**1,739**	**29,605**					100.00%
Meter Adj.				1,696	1.0252	1,739							
Totals				**28,877**	**1.0252**	**29,605**							

Summit Natural Gas of Missouri, Inc.
Case No. GR-2014-0086

Missouri Public Service Commission

Respond Data Request

Data Request No.	0233
Company Name	Summit Natural Gas of Missouri, Inc.-Investor(Gas)
Case/Tracking No.	GR-2014-0086
Date Requested	8/1/2014
Issue	Expense - Operations - Gas Supply Planning/Reliability
Requested From	Martha Wankum
Requested By	John Borgmeyer
Brief Description	Pipeline Capacity
Description	For each of the Company's main-lines (may also be known as transmission lines, laterals or feeder lines) that supply its Warsaw and Branson service areas, please provide the Company's calculated Warsaw main-line capacity and Branson main-line capacity at peak projected loads from the Company's pipeline take-points to the respective city gates. Please describe the model used, and provide all relevant data inputs to the model and output sheets from the model. Please provide the results of all validations of the Company's model using actual measured pressures and flow rates. DR Requested by: Lesa Jenkins (Lesa.Jenkins@psc.mo.gov) and Kathleen McNelis (Kathleen.McNelis@psc.mo.gov).
Response	Please see the attached documents to be filed as a supplemental response to DR0233. Attachment DR0233C Branson System Flow 7-23-14 Attachment DR0233D Warsaw System Flow 7-23-14 Response Provided by: Kent Taylor
Objections	NA

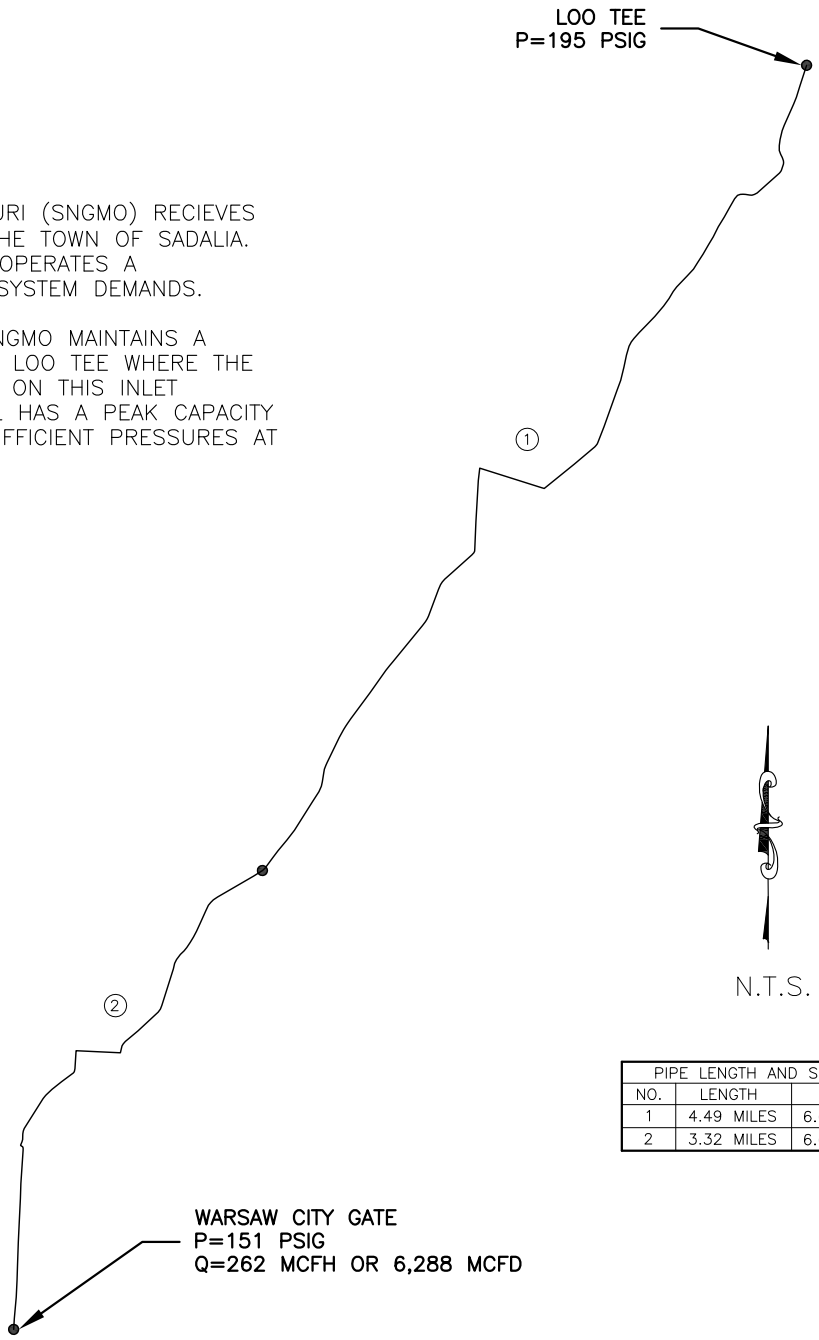
The attached information provided to **Missouri Public Service Commission** Staff in response to the above data information request is accurate and complete, and contains no material misrepresentations or omissions, based upon present facts of which the undersigned has knowledge, information or belief. The undersigned agrees to immediately inform the **Missouri Public Service Commission** if, during the pendency of Case No. **GR-2014-0086** before the Commission, any matters are discovered which would materially affect the accuracy or completeness of the attached information. If these data are voluminous, please (1) identify the relevant documents and their location (2) make arrangements with requestor to have documents available for inspection in the **Summit Natural Gas of Missouri, Inc.-Investor(Gas)** office, or other location mutually agreeable. Where identification of a document is requested, briefly describe the document (e.g. book, letter, memorandum, report) and state the following information as applicable for the particular document: name, title number, author, date of publication and publisher, addresses, date written, and the name and address of the person(s) having possession of the document. As used in this data request the term "document(s)" includes publication of any format, workpapers, letters, memoranda, notes, reports, analyses, computer analyses, test results, studies or data, recordings, transcriptions and printed, typed or written materials of every kind in your possession, custody or control or within your knowledge. The pronoun "you" or "your" refers to **Summit Natural Gas of Missouri, Inc.-Investor(Gas)** and its employees, contractors, agents or others employed by or acting in its behalf.

Security :	Public
Rationale :	NA

SYSTEM SUMMARY

SUMMIT NATURAL GAS OF MISSOURI (SNGMO) RECIEVES GAS FROM SOUTHERN STAR IN THE TOWN OF SADALIA. ALONG WITH THEIR TAP, SNGMO OPERATES A COMPRESSOR STATION TO MEET SYSTEM DEMANDS.

UNDER CURRENT CONDITIONS, SNGMO MAINTAINS A PRESSURE OF 195 PSI AT THEIR LOO TEE WHERE THE WARSAW LATERAL BEGINS. BASED ON THIS INLET PRESSURE, THE WARSAW LATERAL HAS A PEAK CAPACITY OF 262 MCFH ALLOWING FOR SUFFICIENT PRESSURES AT THEIR REGULATOR STATIONS.



N.T.S.

PIPE LENGTH AND SIZE TABLE		
NO.	LENGTH	PIPE SIZE
1	4.49 MILES	6.625" X .188
2	3.32 MILES	6.625" X .188

PRODUCT
NATURAL GAS

PIPE
ROUGHNESS: 0.00070 INCHES
EFFICIENCY: 100%
GRADE: B

MODEL
SOFTWARE: GASWORKS 9.0
FORMULA: PANHANDLE–A

NOTES
1. ALL PIPE LENGTH DIMENSIONS ARE FROM NODE–TO–NODE
2. ALL LOADS ARE PEAK PROJECTED LOADS TO DESIGN PIPELINE CAPACITY
3. PEAK CAPACITY LOAD OF 262 MCFH ALLOWS FOR SUFFICIENT INLET PRESSURES AT ALL REGULATOR STATIONS
4. PIPELINE SIZED TO ACCOMMODATE FUTURE GROWTH

Summit Natural Gas

Warsaw, MO
System Flow Diagram
Peak Capacity Modeling

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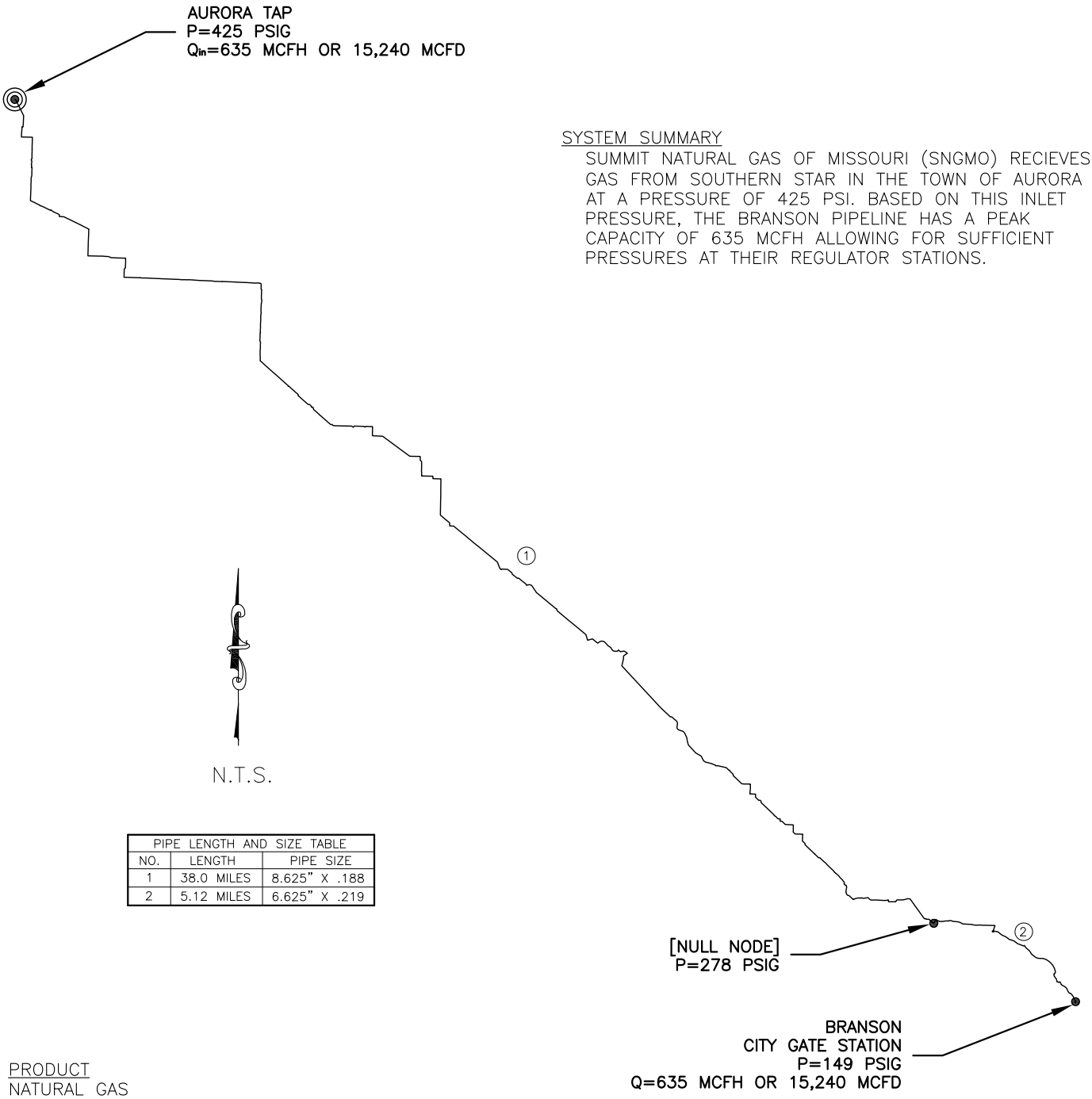
Revision	Date
Modeled by: GDC	06-27-14
Checked by: BEW	06-27-14



SYSTEM SUMMARY

SUMMIT NATURAL GAS OF MISSOURI (SNGMO) RECIEVES GAS FROM SOUTHERN STAR IN THE TOWN OF AURORA AT A PRESSURE OF 425 PSI. BASED ON THIS INLET PRESSURE, THE BRANSON PIPELINE HAS A PEAK CAPACITY OF 635 MCFH ALLOWING FOR SUFFICIENT PRESSURES AT THEIR REGULATOR STATIONS.

N.T.S.

PIPE LENGTH AND SIZE TABLE		
NO.	LENGTH	PIPE SIZE
1	38.0 MILES	8.625" X .188
2	5.12 MILES	6.625" X .219

PRODUCT
NATURAL GAS

PIPE
ROUGHNESS: 0.00070 INCHES
EFFICIENCY: 100%
GRADE: B

MODEL
SOFTWARE: GASWORKS 9.0
FORMULA: PANHANDLE-A

NOTES
1. ALL PIPE LENGTH DIMENSIONS ARE FROM NODE-TO-NODE
2. ALL LOADS ARE PEAK PROJECTED LOADS TO DESIGN PIPELINE CAPACITY
3. PEAK CAPACITY LOAD OF 635 MCFH ALLOWS FOR SUFFICIENT INLET PRESSURES AT ALL REGULATOR STATIONS
4. PIPELINE SIZED TO ACCOMMODATE FUTURE GROWTH

Summit Natural Gas

Branson, MO
System Flow Diagram
Peak Capacity Modeling

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Revision	Date
Modeled by: GDC	06-27-14
Checked by: BEW	06-27-14

Summit Natural Gas of Missouri, Inc.
Case No. GR-2014-0086

Staff Review: - SNG Main Line Capacity Utilization Percentage Calculation

A. General Comments:

A1 SNG workpapers (DRs 232, 233 - including revised and supplemental responses) show that the Warsaw Peak Day Calculation is based on data from the 2012/2013 winter regression statistics; the Branson Peak Day Calculation on data from the 2013/2014 regression statistics. The 2013/2014 winter had colder weather than the 2012/2013 winter. The Company chose not to use 2013/2014 data for Warsaw because Lake of the Ozark data was included for this time period and the two areas cannot be separated in the 2013/2014 data. The 2012/2013 winter data represents only Warsaw. Staff's review of data for 2011/2012 and 2012/2013 show similar usage per customer for the Warsaw area. The 2013/2014 data shows lower usage for the combined Warsaw and Lake of the Ozarks areas. Staff accepts the 2012/2013 data for Branson.

B. Warsaw:

B1 In an attachment to GR-2014-0086, DR 232 mgu south peak regression 2012-2013 rev 8-9-13 (public) the Company provides a peak day estimate for its MGU South Service Area, which includes Warsaw. In its attachment dr 0232 account 105 transfer calculation (public), the Company uses "Coefficient" values from this regression output ("Warsaw Regression Sedalia" tab, Regression analysis for the period 12/1/12 - 2/29/13). Staff recommends using the 95% upper confidence interval (UCI) factors instead, to consider the variability of the data used to derive the peak day estimate.

Source Document	"Coefficient" output		"95% UCI" output	
	base load /customer	retail usage/HDD	base load /customer	retail usage/HDD
attach DR 232 mgu south regression	0.0983	0.0241	0.2174987	0.0276486
attach Dr 232 account 105 transfer	0.0983	0.0241	NA	NA

Note: in the regression, the "intercept" is the "base load/ customer", and "X Variable 1" is the "retail usage/HDD"

B2 Substituting the 95% UCI output factors into the peak day equation, and using the Company's retail customer count for Warsaw from its GR-2014-0086 DR 0232 attachment , the peak retail usage (dth) becomes:

Parameter	Source	Item	Value
Estimated Customer Count	Rebuttal Schedule TDP-3	a	1,111
Base Load (upper 95% Confidence)	DR 232 mgu south regress	b	0.2174987
Usage/HDD (upper 95% Confidence)	DR 232 mgu south regress	c	0.0276486
30-year Peak HDD (Sedalia)	DR 232 mgu south regress	d	82
Peak Retail Usage (Dth)	Calculated	e =a*(b+c*d)	2,760

B3 Adjusting the Company's calculations for the revised Peak Retail Usage (Dth) above results in the following adjusted mainline capacity usage and reduction factors:

Parameter	Source	Item	Value
Peak Retail Usage (Dth)	calculated	e = a*(b+c*d)	2,760
Peak Retail Usage (Mcf)	calculated	f = e/1.014	2,722
Mainline Capacity (MCF/day)	GR-2014-0086, DR 233	g	6,288
Mainline Capacity Usage factor (%)	calculated	h=100% *(f/g)	**43.29%**
Mainline Capacity reduction factor	calculated	i= 100% - h	**56.71%**

C. Branson:

C1 The Company's peak day analysis in GR-2014-0086, DR 232 (public) indicates that the Branson Peak Day Estimate is based on data from the 2013/2014 winter regression statistics.

C2 Staff recommends that the Company use the 95% UCI values from its 2013/2014 winter regression statistics (attachment dr0232 smng branson peak regression 2013-2014.xlsx) as opposed to the "coefficient" values from this regression.

C3 The "Coefficient" and 95% UCI factors from attachment dr 0232 smng branson peak regression 2013-2014 are:

Source Document	"Coefficient" output		"95% UCI" output	
	base load	retail	base load	retail
DR 232 account 105	0.4018	0.0223	0.4817212	0.0245009
DR 232 SMNG Branson regression	0.4018	0.0223	NA	NA

Note: in the regression, the "intercept" is the "base load/ customer", and "X Variable 1" is the "retail usage/HDD"

C4 Substituting the 95% UCI output results to account for the variability of the peak day estimate, and using the Company's retail customer count for Branson, the peak load estimate becomes:

Parameter	Source	Item	Value
Estimated Customer Count	GR-2014-0086, DR 232	a	843
Base Load (upper 95% Confidence)	GR-2014-0086, DR 232	b	0.4817212
Usage/HDD (upper 95% Confidence)	GR-2014-0086, DR 232	c	0.0245009
30-year Peak HDD (Springfield)	GR-2014-0086, DR 232	d	73
Peak Retail Usage (Dth)	Calculated	e =a*(b + c*d)	1,914

C5 The Company used transportation customer usage from January 6, 2014 to represent it's transportation requirement on a peak day. Staff's review of weather data for Springfield indicates that January 6, 2014 was the coldest day for the time period Jan 2000 - Mar 2014. In it's "attachment dr0232 account 105 transfer calculations rev dkt 8-6-12", the Company shows this as 1,201 mcfd (1,131 Mdf converted to 1,160 dth and reduced for pipeline allocations to 1,232 dth which equals 1,201 mcf). This is consistent with the transport customer usage from the 2013/2014 regression for January 6, 2014.

C6 Adjusting the Company's calculations for the revised Peak Retail Usage (dth) and transportation customer usage above, yields:

Parameter	Item	Source	Calculation	Value
Peak Retail Usage (Dth)	a	calculated	see above	1,914
Peak Retail Usage (Mcf)	b	calculated	Dth/1.025	1,867
Transportation Customer usage (Mcf)	d	calculated	Dth/1.025	1,201
Total Usage in Mcf	e	calculated	b + d	3,068
Mainline Capacity (MCF/day)	f	Company	Company	15,240
Mainline Capacity Usage factor	g	calculated	e/f	20.13%
Mainline Capacity reduction factor	h	calculated	100% - g	79.87%

C7 For Branson, In GR-2014-0086, DR 232 attachment dr0232 smng branson peak regression 2013-2014, 3-year projection tab, the Company provides the following estimated number of customers for planning future pipeline capacity needs:

Winter	No. Customers	% increase from prior year
Dec-13	811	NA
2014/2015	933	15.04%
2015/2016	1,015	8.79%
2016/2017	1,104	8.77%

Absent other data, Staff assumed that the growth would drop after 2016/2017. Staff assumed continued growth at approximately 2.00% per year for the following two winters:

Winter	No. Customers	% increase from prior year
2017/2018	1,126	2.00%
2018/2019	1,149	2.00%

C8 Estimate the Peak Day usage and usage factor adjusted for growth through the winter of 2018/2019:

Parameter	2014/2015	2015/2016	2016/2017	2017/2018	2018/2019
Number of Customers	933	1,015	1,104	1,126	1,149
Peak Retail Usage (Dth)	2,118	2,304	2,506	2,556	2,609
Transportation Customer usage (Dth)	1,232	1,232	1,232	1,232	1,232
Total usage (Dth)	3,350	3,536	3,738	3,788	3,841
Total Usage in Mcf	3,268	3,450	3,647	3,696	3,747
Mainline Capacity (MCF/day)	15,240	15,240	15,240	15,240	15,240
Mainline Capacity Usage factor	21.44%	22.64%	23.93%	24.25%	24.59%
Mainline Capacity reduction factor	78.56%	77.36%	76.07%	75.75%	75.41%