

STATE OF MICHIGAN

BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION

\* \* \* \* \*

In the matter of the complaint of Quicksilver, Inc. )  
and Terra Energy, LTD. Against MichCon Gathering )  
Company and Michigan Consolidated Gas Company )  
For violation of Section 10 of PA 9 by altering the )  
Terms and conditions of service. )  
\_\_\_\_\_ )

Case No. U- 14821

STATE OF MICHIGAN )

County of Ingham )

**PROOF OF SERVICE**

Sheila Muniz Aleshire, being duly sworn, deposes and says that on **June 21, 2006**, A.D., she served a copy of the attached Testimony, by mailing copies thereof by first class mail, postage prepaid, or by inter-departmental mail, to the persons as shown on the attached service list.

**Sheila Muniz  
Aleshire**

Digitally signed by Sheila Muniz  
Aleshire  
DN: CN = Sheila Muniz Aleshire, C  
= US, O = Michigan Public Service  
Commission, OU = Engineering  
and Service Quality Division  
Date: 2006.06.21 16:31:46 -04'00'

\_\_\_\_\_  
Sheila Muniz Aleshire

Subscribed to before me this  
21<sup>st</sup> day of **June, A.D., 2006**



\_\_\_\_\_  
Linda S. Andreas, Notary Public,  
State of Michigan, Ingham, County, Michigan  
Acting in Ingham County  
My Commission expires March 22, 2012

**QUALIFICATIONS OF DONALD MAZUHCOWSKI  
CASE NUMBER U-14821  
PART I**

**S T A T E O F M I C H I G A N**

**BEFORE THE MICHIGAN PUBLIC SERVICE COMMISSION**

\* \* \* \*

|                                                        |   |                          |
|--------------------------------------------------------|---|--------------------------|
| <b>In the matter of the application of Quicksilver</b> |   |                          |
| <b>Resources, Inc. and Terra Energy, Ltd.</b>          | ) |                          |
| <b>Complainants</b>                                    | ) | <b>Case No. U- 14821</b> |
| <b>vs.</b>                                             | ) |                          |
| <b>Michigan Gathering Company and</b>                  | ) |                          |
| <b>Michigan Consolidated Gas Company</b>               | ) |                          |
| <b>Respondents</b>                                     | ) |                          |
| _____                                                  | ) |                          |

Q. What is the purpose of your testimony?

A. I will be offering opinions and making recommendations to the Commission regarding the transportation contract dispute between producers Quicksilver Resources, Inc. and Terra Energy, Ltd. and Mich Con Gathering.

Q. Are you familiar with the Antrim Dry header pipeline (AEP) application filed by Michigan Consolidated Gas Company U-10547?

A. Yes. I was the case coordinator for the MPSC Staff and developed Staff's position in Case No. U-10547. Case No. U-10547 mandates specific conditions relating to the gas transportation contracts on the AEP pipeline between Quicksilver and Terra and Mich Con Gathering that are now in dispute.

Q. Did the Commission order in U-10547 address Antrim gas carbon dioxide treating?

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1 A. Yes. However, the Commission decided in 1995 not to regulate Antrim gas  
2 carbon dioxide treating.

3  
4 Q. Did the Order in U-10547 have a carbon dioxide limit for gas transported off the  
5 AEP pipeline?

6 A. Yes. The Commission ordered that the carbon dioxide level for gas on the AEP to  
7 be 2% or less at all delivery points or take-away locations.

8  
9 Q. Why is there a concern with carbon dioxide concentration in pipeline systems?

10 A. In the presence of water, carbon dioxide can form carbonic acid which can cause  
11 corrosion that damage pipelines, storage field wells and storage field piping.

12  
13 Q. In the initial AEP pipeline case (Case No.U-10547), what were some of the  
14 design issues for the pipeline?

15 A. The pipeline system was designed to minimize the potential for curtailments,  
16 removed the carbon dioxide content to below 2% and to have four different  
17 delivery points or take-away locations.

18  
19 Q. Initially, what type of transportation contracts did Mich Con Gathering offer on  
20 the AEP pipeline?

21 A. Mich Con Gathering offered Antrim gas shippers transportation on the AEP with  
22 two basic types of contracts; An ASATT contract for gas with a carbon dioxide  
23 content over 2% which provides contract treating service and transportation. And

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1 an ASAT contract for gas with a carbon dioxide content of 2% or less, which only  
2 provided for transportation. Both sets of contracts had a carbon dioxide content  
3 of 2% or less at the delivery points so shippers could market their gas and the  
4 pipelines were also protected.

5

6 Q. What is Mich Con Gathering offering now with respect to carbon dioxide levels?

7 A. In regards to the specifics of the present case, Mich Con Gathering's has changed  
8 the CO<sub>2</sub> content for Antrim gas transported on the AEP with ASAT type contracts  
9 from a maximum of 2% to 0.75%.

10

11 Q. What does the terms blending and physical treatment of CO<sub>2</sub> mean, and how are  
12 they related to Antrim gas carbon dioxide removal?

13 A. At the time the AEP pipeline application was filed with the Commission in 1994,  
14 Michigan Consolidated Gas Company (MCGC) the predecessor to Mich Con  
15 Gathering, transported or bought a significant amount of gas from the Niagaran  
16 and PDC formations which contain significantly lower CO<sub>2</sub> levels. MCGC  
17 decided to use this low carbon dioxide gas for blending instead of treating all of  
18 the Antrim gas for carbon dioxide removal. MCGC blended the low level carbon  
19 dioxide gas with the Antrim gas to achieve gas with a carbon dioxide content of  
20 2% or less at the delivery points. It was convenient for the shippers and owners  
21 of the carbon dioxide removal facilities. Another method to reduce the carbon  
22 dioxide level was to super treat the Antrim gas to a level below 2% so it could be  
23 blended with Antrim gas with higher carbon dioxide content. Fewer carbon

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1       dioxide treatment plants and pipelines were required with the use of blending and  
2       the plants that were constructed operated efficiently based on the economies of  
3       scale. Thus, MCGC negotiated a contract with CMS to treat Antrim Gas to a  
4       carbon dioxide level of 0.75%

5

6       Q.     How does the Commission regulate transportation contracts on pipeline it  
7       approves?

8       A.     Act 9 of 1929 and the rules promulgated there under, authorize the Commission to  
9       regulate transportation contracts. The parties negotiate their initial gas  
10      transportation contract and the Commission approves any changes. This includes  
11      expired contracts that are renewed. Section 10 of Act 9 states in  
12      part.....Thereafter, a common purchaser or common carrier of natural gas may  
13      alter or amend its price paid, rates charges, and conditions of service by  
14      application to approval by the commission...

15

16      Q.     What is your opinion regarding Mich Con Gathering changes to the carbon  
17      dioxide level limit for ASAT transportation contracts from a max of 2% to 0.75%  
18      CO<sub>2</sub> level?

19      A.     It's the Staff opinion that Mich Con Gathering must first obtain the Commission  
20      approval before it can offer changes to their existing transportation contracts.  
21      Changes to price or terms and conditions, under Act 9, are to be approved by the  
22      Commission before they can be implemented. Therefore, until Mich Con

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1 Gathering seeks and receives approval of the new 0.75% level it cannot be  
2 mandated it on the shippers.

3

4 Q. What is your opinion regarding Mich Con new mandate of 0.75% carbon dioxide  
5 level for Antrim gas transportation contracts?

6 A. I believe it is unfair, unreasonable and discriminatory. Mich Con Gathering  
7 cannot unilaterally mandate CO<sub>2</sub> specifications on the AEP without the  
8 Commission approval. All Antrim gas Shippers have to pay Mich Con the same  
9 treating charge for CO<sub>2</sub> removal whether Mich Con blends or actually physically  
10 removes the CO<sub>2</sub> to a level of 2% or less at the delivery points. For Mich Con to  
11 meet its obligations under the ASATT contracts, Mich Con Gathering contracts to  
12 super treat the gas to a level of 0.75% at the South Chester carbon dioxide plants.

13 Initially, Mich Con Gathering had enough non-Antrim gas to either  
14 blend with non-Antrim gas or super treat to 0.75%. It now appears Mich Con  
15 Gathering does not have all the gas it once had for blending. And instead of  
16 paying for the treating it needs to meet its obligations of less than 2% CO<sub>2</sub> content  
17 at all take-away delivery points, Mich Con is now attempting to pass the treating  
18 cost on to the shippers. Frank Murray's testimony (pg7) and exhibit (FMM-4 and  
19 FNM-5) demonstrates that Mich Con Gathering does not have enough contract  
20 carbon dioxide treating capacity. It' my opinion that Mich Con Gathering is  
21 attempting to have the shippers foot their incremental treating bill.

22

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1 Q. Why do you believe the Mich Con mandate of 0.75% carbon dioxide level is  
2 unfair?

3 A. Mich Con Gathering was granted approval of the AEP pipeline system through a  
4 competing pipeline process. Initially, there were four or five projects proposed.  
5 A significant number of parties supported Mich Con Gathering's modified  
6 proposal and the Commission subsequently approved it. It was approved with a  
7 negotiated set of terms and conditions between Mich Con Gathering and its  
8 shippers, one being to transport Antrim gas to a carbon dioxide level two percent  
9 or less. The pipeline is essentially a monopoly; the shippers don't have any  
10 practical options for transporting their gas to market. It doesn't seem fair to  
11 unilaterally change an important condition of the transportation contract. In  
12 addition, the shippers are required to spend extra money to super treat its gas to  
13 0.75% level and Mich Con Gathering is using the gas for its benefit by blending it  
14 with other shippers gas and also charges the shippers whose gas is blended a  
15 treating fee corresponding to cost for physical treatment.

16  
17 Q Who is responsible for delivering Antrim gas at two percent or less at the delivery  
18 points?

19 A Mich Con Gathering is responsible to ensure gas is at or below 2% at the take-  
20 away locations. Mich Con Gathering performs two significant functions by  
21 transporting and treating the Antrim gas. Mich Con Gathering only accepts  
22 Antrim gas which is two percent or below carbon dioxide content or Antrim gas  
23 which will be treated to below 2% or below carbon dioxide content. Mich Con

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1 Gathering decided that one method to reduce the carbon dioxide content was  
2 through blending. Mich Con treats or blends the ASATT Antrim gas it transports  
3 and the producer is responsible for keeping the gas below two percent with ASAT  
4 contract gas. Therefore, if the gas is not two percent or lower at the take-away  
5 locations, Mich Con Gathering does not have enough treating capacity and they  
6 are not providing the treating services they are charging the shippers for. The  
7 shipper has no control of the carbon dioxide content once the gas reaches the AEP  
8 pipeline.

9 Q. Is there any reasonable safety benefit for Quicksilver and Terra or any other  
10 shippers to treat their Antrim gas to below 2% carbon dioxide level?

11 A. No. Industry studies have not shown any corrosion from natural gas with a  
12 carbon dioxide level of 2% or below. Most pipeline companies use a maximum 2  
13 percent carbon dioxide level in their gas transportation contracts.

14 Q. Should the Commission regulate carbon dioxide treating?

15 A. If Mich Con Gathering continues to make unreasonable demands on the shippers  
16 of the Antrim gas, the Commission should step in and regulate carbon dioxide  
17 treating. However, this is the first time in over 10 years the parties have had a  
18 major disagreement over the contracts, therefore the system currently appears to  
19 be adequate.

**Service List U-14821**

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