Trilogy Operating
JIA Response to Exception #21 – Undocumented Volume Variances

1. The first paragraph is in response to the 3rd paragraph of Exception #21 in the audit report regarding the production reporting on the C-115 reports. From the documentation received, it appears that the BLM and the OCD are allowing the allocated production volumes to be used for reporting instead of actual production volumes. Documentation of this approval by the BLM was provided with their response. This appears to be acceptable.

2. 2nd paragraph: The operator states that measurement errors were discovered during the review of 41 months. However, the months reviewed, which well(s) had errors, and the amount of the corrections per well and per month are not provided. Without the detail, there is no way to determine whether or not the claim that the corrections of the errors reduces the variance %'s from 21% to 4.7% for July and from 20% to .7% for August are correctly calculated. The detail that was provided on Item 4 consists of a Totalflow Standard Meter Events Report for the Sweet Thing #2 (Cisco) and copies of the July and August meter reports. There is no interpretation of the data or indication of the amount of correction that needs to be done. The total volume to be corrected is noted at 25,792 mcf for July, August, and December of 1999 and January and February of 2001. Again, we have no detail to review. Also, there is no indication of when or how these errors will be corrected.

3. 2nd paragraph: The operator tries to explain away the remaining variances by netting the average corrected variance for the first 24 months with the average variance of the last 7 months. There appear to be several problems with the calculations and math applications. First, the stated corrected average is 3,302. This does not appear to be correct using the correction amount given in the paragraph. The corrected average of first 24 months would be:

   100,517 total variance for the first 24 months
   (25,792) stated corrections
   74,725 corrected total variance
   23 divided number of months that volumes were provided
   3,249 corrected average variance for the first 24 months

   Second, the operator incorrectly calculated an average monthly variance of 7,756 for the whole review period. They calculate this by adding their stated corrected average of 3,302 for the first 24 months in which the monthly metered production volume is consistently greater than the sales volume to the average negative variance of -4,454 for the last 7 months in which the monthly metered production volume is consistently less than the sales volume. A positive 3,303 plus a negative 4,454 would actually calculate to a negative 1,152. The 7, 756 is actually a median *range* of variance rather than an average variance. A correct total average cannot be obtained by adding the average for a 24-month period to the

BEFORE THE OIL CONSERVATION DIVISION
Santa Fe, New Mexico
Case Nos. 12967 and 12968 Exhibit No. 20
Submitted by: Trilogy Operating Inc.
Hearing Date: January 9, 2003

average for a 7-month period. Then they deducted the average increase in compression fuel usage of 5,130 to arrive at a new average of 2,626. Applying the monthly compressor fuel adjustment does not result in a correct adjusted average. The adjustment only applies to the last 7 months and cannot be applied to the average. The subtracting out of the 5,130mcf increase in compressor use would actually make the negative variances greater. The actual corrected average total variance would be:

$$(3{,}249 \times 23 \div 30) + (-4{,}454 \times 7 \div 30) =$$
$$2{,}491 \quad + \quad -1{,}039 \quad = 1{,}452$$

The use of averages for the period cannot be used to explain the monthly variances. Variances must be reviewed by month because 1) the measurements are done on a monthly basis, 2) the allocations are done on a monthly basis, 3) the prices are applied on a monthly basis, 4) variances fluctuate from one direction to the other, and 5) the problems causing the variances can be different each month.

4. 2nd paragraph: the operator indicates that a new compressor was put on line in March 2001. This coincides with the month that the volume variances reversed to negative numbers. The sales meter volume began to always be greater than the combined allocation meters. A larger fuel usage would have had the reverse effect. The problem of monthly negative variances is not addressed at all. Common sense would dictate that you cannot sell more than you produce every month. This could also indicate that a well has been added to stream that is not being allocated. This would mean that interest owners might not be getting paid or paid properly.

5. 2nd paragraph: The response states "If the theory presented in Exception #21 were extended past September 2001 until February 2002 the balance would be (-417)mcf and growing." They admit that net number will continue to grow after the balance "nets out". As explained in the prior paragraphs, the "netting out" method presented by the operator is invalid.

6. 3rd paragraph: The operator tries to explain some of the variances due to older type equipment that began to be replaced with Totalflow Electronic Flow Meters starting in December 2000. However, the document item #4 attached for the measurement errors in July and August of 1999 includes a Totalflow event log. Was the well with the error already on Totalflow or not? It would appear that changing equipment was of no relevance to the measurement errors. The stated date for the beginning of equipment changes roughly coincides with the change in monthly variances from positive to negative. This could imply a failure to properly adjust input data on the new equipment to generate proper meter readings.

7. 3rd paragraph: The operator states that the remaining 1.7% variance (according to their calculations) is due to lab analysis differences. How do they know this? How would this be calculated? Why are there lab differences?