

**CLOSING STATEMENT OF**  
**CHEVRON U.S.A. PRODUCTION COMPANY**  
**AND CONOCO INC.**

**ROLE OF THE OIL CONSERVATION COMMISSION:**

In New Mexico disputes involving the development of oil and gas resources come before the Oil Conservation Commission for resolution. These cases are technical in nature and their resolution requires an understanding of petroleum engineering, geology and the rules and regulations of the Commission. Since courts are generally ill equipped to understand and therefore properly decide these technical issues, the legislature created the Oil Conservation Commission and vested it with jurisdiction over all matters related to the conservation of oil and gas. The Commission has been recognized by our Supreme Court as having special expertise and knowledge in oil and gas matters and the courts generally defer to the Commission's decisions.

In the normal hearing before the Commission, each party presents its "science" in support of its position in the case. We come here because, unlike a court, the Commission knows what is "science" and what is not. The Commission knows the difference between evidence that is accurate and has been developed using industry accepted methods. The Commission also recognizes evidence that is inaccurate, not developed in accordance with industry accepted practice, or manipulated for purposes of the hearing. This is the job of the Oil Conservation Commission.

Sapient asserts that its Barber No. 12 Well in the West Monument-Tubb Gas Pool drains a small area, but Chevron/Conoco's evidence shows the well drains 165-acres. Both parties have new evidence that they have obtained within the last two months. Sapient has new pressure data from the Barber No. 12 Well which, when incorporated into its drainage calculations, dramatically reduced the drainage area for the Barber No. 12 Well from 103 acres to 59 acres. Chevron/Conoco have new information from the recently completed Mathews No. 12 Well. When the new porosity and pressure data are used in their calculations the drainage area for the Barber No. 12 Well is slightly increased from 154 acres to 165 acres. Note that both sides presented incremental data during the de novo hearing, but only the Chevron/Conoco data included new information that was harmful to earlier positions. For example, as new data became available, Chevron/Conoco actually increased the production decline curve which reduced the calculation for Estimated Ultimate Recovery. All of Sapient's changes were made to benefit its own self-interest.

Although the case may seem complicated, it involves only one question: How many acres are drained by a well in the West Monument-Tubb Gas Pool? The answer to this question resolves all issues presented to the Commission in this matter. To answer this question the Commission must examine three things: porosity, pressure and drainage. In this context, it is important to note that Sapient had the burden of proof going forward and must clearly demonstrate that their Barber No. 12 Well will not drain gas reserves under the Federal lands leased to Conoco, Chevron and others.

## POROSITY:

Sapient's 12.2% porosity estimate was obtained from the PE log on the Barber No. 12 Well. This is not science. The evidence showed that the PE log is only a lithology indicator and it is not standard industry practice to use this type of log to determine porosity. Furthermore, the presence of minerals like ankerite and pyrite in the sidewall core data from the Mathews No. 12 well render meaningless the use of the PE log to determine porosity.

Chevron/Conoco calculated a porosity of 6.5% for the Mathews No. 12 Well and 6.7% for the Barber No. 12 Well for the Tubb formation using the Schlumberger cross plot curves for each well. The use of the cross plot is standard industry practice. Furthermore, the Chevron/Conoco porosity figures were confirmed by CORE Labs in 29 side wall cores taken from representative intervals in the Tubb formation in the Mathews No. 12 Well. Porosity information from logs is used to try to determine the porosity of the rock in the formation. Here we have the rock. Even Sapient's own geologist had to admit that the best evidence was the rock itself. It confirms the cross plot porosity calculation. This is science. Using this science it is clear that the wells in this pool drain large areas.

## PRESSURE DATA:

### Initial Reservoir Pressure:

For its material balance calculations, Sapient used an initial reservoir pressure it obtained by averaging the initial pressure in several wells in the general area. The problem with Sapient's approach is that it used wells in which the Tubb formation is deeper than in the Barber No. 12 Well and Sapient failed to adjust the pressure to the mid-perforation point.

Chevron/Conoco calculated an initial pressure from wells in the immediate area after adjusting the data to represent the mid-perforation depth in the Barber No. 12 Well. Chevron/Conoco excluded data from depleted wells and oil wells, and then averaged the initial pressures in the wells that remained to get a pressure at the perforated interval in the Barber No. 12 Well. Sapient's geologist acknowledged that Chevron/Conoco had used a better method to determine initial pressure.

Sapient's method of calculating initial pressure is not only inferior to the methods used by Chevron/Conoco, it is not science. Whether Sapient's methods are intentionally misleading or just sloppy, they result in an estimated initial pressure that is 129 psia higher than the pressure obtained by Chevron/Conoco. Use of this higher pressure in their P/Z Curve results in a smaller Estimated Ultimate Recovery for the Barber No. 12 Well and this in turn conveniently results in a smaller drainage area for the well.

### Bottomhole Pressure:

Sapient's bottomhole pressure measurement of 1235 psia also fails to meet industry standards. Sapient ran a static pressure test in the Barber No. 12 Well after it had experienced substantial depletion. The test was taken after the well had been shut-in for five days but while

the pressure in the well was still building. The pressure gauge was at a depth approximately 130 feet above the mid-point perforation, and although the well produces fluids, Sapient did not know the fluid level below the gauge and assumed none.

Chevron/Conoco used an industry accepted type curve analysis to calculate average pressure for the reservoir from a continuous 6 day shut-in pressure build up test on the Matthews No. 12 Well. The Matthews #12 well produces no fluids. With this pressure gradient, Chevron/Conoco calculated the pressure at the mid-point of the perforated interval and obtained a bottom hole pressure for the Matthews No. 12 well of 1445 psia. The pressure obtained by Chevron/Conoco is more representative of the external absolute pressure in the reservoir because it accounts for reservoir properties and is able to compute a stabilized rate. Chevron/Conoco's pressure is based on science – Sapient's pressure is not.

#### DRAINAGE:

Using their porosity and pressure data, Chevron/Conoco calculated the drainage area for the Barber No. 12 Well in three ways. With decline curve analysis they got an estimated Ultimate Recovery of 1.670 BCF and a drainage area of 165-acres, with volumetrics an Estimated Ultimate Recovery of 1.616 BCF, and with material balance an Estimated Ultimate Recovery of 1.679 BCF and a drainage area of 164 acres.

Using its data, Sapient calculated a drainage area of 59 acres. Sapient tried to reduce the Ultimate Recovery from the Barber No. 12 Well by using pressure data that was not at a stabilized reservoir pressure and then increased the porosity in the reservoir so more gas could be contained in a smaller area. All of this was an attempt to force the reserves under its acreage. Sapient also mapped the porosity perpendicular to the general reservoir trend in this area—and conveniently under its tract.

Even with all of this maneuvering, Sapient still cannot get around one fact. The pressure in the Matthews No. 12 Well is now 1446 psia – down from an original reservoir pressure of 2462 psia. This pressure depletion is a result of production from the Barber No. 12 Well, which has produced approximately 49% of its recoverable reserves and has already drained more than the 736 feet between it and the Matthews No. 12 Well. This drainage also extends across the northeast quarter of Section 7, because the new data from the Matthews No. 12 Well shows, even using Sapient's isopach map, that there are 32 feet of porosity at the location of the Matthews No. 12 Well compared to the 20 feet previously mapped at this location by Sapient. We now know that the Barber No. 12 Well is draining a large area and that it is draining Chevron/Conoco acreage.

When the methods used by each of the parties in this case is compared, it is clear that Chevron/Conoco presented reliable information on this reservoir, and calculated porosity and pressure data using industry accepted methods. Their information clearly shows that wells will drain 160-acres in the West Monument-Tubb Gas Pool.

Sapient may call their work “science” but it is not. Sapient has not used industry practices or standards, but has instead chosen to use unconventional means which has biased the results—every time to Sapient’s benefit and every time incorrectly.

The standard the Commission must apply in this case is announced in statute: Spacing follows drainage. Since Sapient’s technical presentation fails to show 80-acre spacing is appropriate for this pool, Sapient asks the Commission not to rely on drainage information on this reservoir but instead to base its order on information analogized from wells located miles away and not pertinent to the drainage capabilities of the Barber No. 12 Well in the Tubb formation in the West Monument-Tubb Gas Pool. This is something the Commission cannot do.

It is inappropriate for the Commission to rely on interpreted data from other wells and a different pool when there is actual data on this pool that shows the Tubb reservoir is in pressure communication, and there is a high degree of continuity and correlation between the logs on the two wells that have been drilled in the pool. It also shows that wells drain 160 acres -- not 80 acres or less.

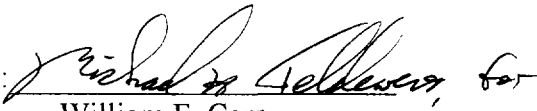
Sapient’s predecessor, Cross Timbers, failed to comply with Division rules when it recompleted the Barber No. 12 Well. However, since Sapient assumed operations that trend has continued. Sapient has known, or should have known, that it was in violation of Division rules. Moreover, Sapient has used the rules to gain an advantage against offsetting operators every time it could. Sapient objected to Chevron’s offsetting location and gained additional time to produce the Barber No. 12 Well at capacity while Chevron could not drill an offsetting well.

With the reservoir substantially depleted and reserves drained from Chevron/Conoco’s Federal lease, Sapient now asks the Commission to enter a retroactive spacing order and let it keep the reserves it has drained from others. To grant Sapient’s request for 80-acre spacing, the Commission would have to ignore the drainage evidence on this reservoir and authorize wasteful over-drilling of this pool. To grant Sapient’s application, the Commission has to ignore the correlative rights of Chevron, Conoco and others and deny each of them the opportunity to produce their fair share of the reserves in the West Monument-Tubb Gas Pool. This correlative rights violation will result from a change in spacing and a retroactive spacing order which cannot be corrected at a later date by the drilling of offsetting wells.

Chevron/Conoco ask the Commission to deny the application of Sapient for 80-acre spacing for the West Monument-Tubb Gas Pool either prospectively or retroactively to the date of first production from the Barber No. 12 Well. The Division ruled on Sapient’s application, finding that Sapient had been illegally producing the Barber No. 12 Well and directing that it be shut-in until the production proceeds had been reallocated to those who owned the oil and gas rights under the standard 160-acre spacing unit comprising the NE/4 of Section 7. Chevron/Conoco respectfully ask the Commission to do the same.

Respectfully submitted,

Holland & Hart, LLP

By:  for  
William F. Carr

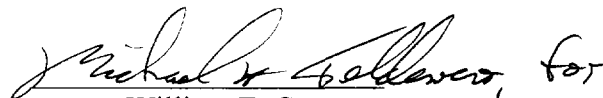
ATTORNEYS FOR CHEVRON U.S.A.  
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CERTIFICATE OF SERVICE

I hereby certify that on December 14, 2001, a copy of this Closing Statement and Proposed Order have been Hand Delivered to the following Attorneys of record:

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