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BEFORE THE CORPORATION COMMISSION OF THE STATE OF OKLAHOMA

<u>APPLICANT:</u>	SUNDOWN ENERGY, LP)	
<u>RELIEF SOUGHT:</u>	EXCEPTION TO RULE NO. 165:10-1-21)	CAUSE CD NO. 200807531 ✓
<u>LAND COVERED:</u>	SECTION 29, TOWNSHIP 27 NORTH, RANGE 24 WEST, HARPER COUNTY, OKLAHOMA)	FILED DEC 23 2008
<u>APPLICANT:</u>	SUNDOWN ENERGY, LP)	
<u>RELIEF SOUGHT:</u>	SHUT IN WELL)	CAUSE CD NO. 200808325
<u>LAND COVERED:</u>	SECTION 29, TOWNSHIP 27 NORTH, RANGE 24 WEST, HARPER COUNTY, OKLAHOMA)	

**REPORT OF THE ADMINISTRATIVE LAW JUDGE ON
EMERGENCY REQUESTS AND ON A MOTION TO DISMISS**

These Causes came on for hearing before Susan R. Osburn, Administrative Law Judge ("ALJ") for the Oklahoma Corporation Commission, at 9 a.m. on the 11th day of December, 2008, in the Commission's Courtroom, Jim Thorpe Building, Oklahoma City, Oklahoma, pursuant to notice given as required by law and the rules of the Commission for purpose of taking testimony and reporting to the Commission.

At the time of the hearing, Charles Davis, attorney, appeared on behalf of applicant, Sundown Energy, LP ("Sundown"); Charles Helm, attorney, appeared on behalf of IBEX Resources ("IBEX"); Richard Grimes, attorney, appeared for Apache Corporation ("Apache"); Keith Berry, landman, appeared for Legacy Resources ("Legacy"); and Sally Shipley, Deputy General Counsel for the Conservation Division, filed notice of appearance for the Oklahoma Corporation Commission.

After considering the arguments of counsel and the record contained within these Causes, the ALJ finds as follows:

FINDINGS

1. A. Cause CD 200807531 is the application of Sundown requesting exception to Rule 165:10-1-21 authorizing completion of the Rose Hill 1-29 in the Cherokee common source of supply. Said cause came on for hearing this date on an emergency basis requesting authority for authorizing applicant to commence recompletion of the Rose Hill 1-29 in the Cherokee common source of supply on an emergency basis prior to final order.

B. Cause CD 200808325 is the application of Sundown seeking an order directing Apache Corporation to shut in the Rose Hill 2-29 for being drilled in violation of Rule 165:10-1-21. Said cause was heard this date on an emergency basis requesting shut-in of the well prior to hearing and final order and on a Motion to Dismiss application filed by Apache.

2. The Commission has jurisdiction over the subject matter and notice has been given in all respects as required by law and the rules of the Commission.

3. A. Prior to testimony Mr. Davis made an opening statement listing the history of this unit noting that this is an unspaced unit for the Cherokee; that the Rose Hill 1-29 was drilled and completed June 1997 as a Morrow gas well for a 640-acre spaced unit for Section 29; that the 640-acre spaced Chester was behind pipe and was to be completed upon depletion of the Morrow. That the 2-29 Rose Hill was proposed by Apache July 2008 and that Sundown participated in that well and paid their costs and the well was drilled and completed. After completion of that well Sundown then sought to recomplete the 1-29 Rose Hill and found that it was about 350' from the 2-29. Rule 165:10-1-21 requires among other restrictions that no well is to be drilled in the unspaced tract any closer than 600' from any other "producible or drilling oil or gas well when drilling to the same common source of supply". The Cherokee is unspaced and at a depth of 6400' and would fall within this rule for distance between wells. He said Apache drilled too close to the 1-29 well and they are in violation of that rule and that Sundown is now seeking a location exception to recomplete in the Cherokee in their existing well. He noted if Apache was in compliance with the rule and a proper distance from the 1-29 well, Sundown would not have to obtain a location exception to recomplete their well; since Apache drilled their well too close to the 1-29 well Sundown believed they should have to shut in their 2-29 well. Apache is objecting to Sundown's recompletion of their 1-29 well in the Cherokee. That the 2-29 has been drilled to the Cherokee and the 4-29 has been proposed.

B. Mr. Helm stated that IBEX supports Sundown in their request to recomplete the 2-29 in the Cherokee, that IBEX participated in the 1-29 and in the 2-29. He stated that the rules are in place to protect the working interest owners in the 1-29 well; as a participant in that well IBEX paid their risk monies and the rule as to the distance between wells on unspaced property is to protect working interest owners and the Apache 2-29 was drilled and completed in the Cherokee 350' more or less from the 1-29 well. IBEX supports Sundown's recompletion of the Cherokee in the 1-29 well. Upon questioning by the Court about the request to shut in the 2-29 well, Mr. Helm merely reiterated that they did support Sundown in their request to recomplete the 1-29 well in the Cherokee.

C. Mr. Grimes stated that the NW/4 of Section 29 is a single 158-acre tract and the interest there is undivided across that entire tract; that the 1-29 was drilled by McNic and was drilled through the Cherokee, though they never tested or completed in that zone. McNic drilled and produced the Morrow, which is spaced on a 640-acre basis under Section 29, and the completion report shows that McNic completed the Morrow and tested the Chester, that there is no reference to the Cherokee any where, not even an indication that the Cherokee was penetrated, although Apache stipulates that the well did in fact penetrate the Cherokee. Apache developed the idea of a Cherokee well in the NW/4 unspaced tract where there is undivided Cherokee ownership. When Apache drilled their well it was only for the unspaced Cherokee and 165:10-1-21 required they should not drill to the unspaced Cherokee less than 330' to any property line and not less than 600' to any producible oil or gas well, with a provision that if an exception is granted that the Commission can adjust the allowable or take any other action deemed necessary for the prevention of waste and protection of correlative rights. When Apache determined to drill they checked for Cherokee wells in the NW/4, that the 1-29 was never tested or produced and was not shown as even having penetrated the Cherokee, so they filed their form 1000. Since they were within the required distance to the boundary lines and were within the required

distance as to any Cherokee wells, the form 1000 was approved. He noted that there was an operating agreement covering this tract so they proposed the well to Sundown and to IBEX and in their proposal they stated the location of the well with footages to the appropriate boundaries. Apparently Sundown did not review the proposal since they did not discover until after the well was drilled that the 2-29 was close to the existing 1-29 well, in fact they chose to participate in the 2-29 well.

Sundown acquired the McNic interest, a well bore interest in the 1-29 well, and Apache acquired the interest of the party who farmed out to them, so they have interest outside the 1-29 well. Sundown participated with their small interest in the 2-29 well and Apache carried most of the risk monies spent to drill this well and prove up the Cherokee. Testimony will show that their well will produce oil around the 1-29 Morrow well, where Sundown owns a large interest; now Sundown wants to recomplete their 1-29 well and produce the Cherokee and they want to shut in the Apache 2-29 well so that they can produce all their potential behind pipe reserves. They are claiming Rule 165:10-1-21 where it references "producibile" well in the same common source of supply means that if a well penetrates an interval, even if it is not tested or completed, that interval is producible. He said if they are correct about this rule that Apache has to file a location exception due to a Morrow well; then Apache would have to notify that operator, however the notice rule for location exception off pattern wells requires notice to operators of producing wells. The rule does not say notice to any adjacent well, but to operators of wells that actually produce.

As to Sundown's argument of drainage he questioned how can one drain reserves from offsets when the ownership in this tract is uniform, that correlative rights do not apply intra unit, that there is no competition upon which correlative rights can be argued except by contract, that here there is a private contract for development of this unit and that Oklahoma law recognizes correlative rights and drainage apply to separate tracts and or units.

At the conclusion of the hearing Apache would seek to dismiss Sundown's application to shut in the 2-29 since there is no Cherokee well requiring the setoff distance and requiring any kind of exception to the rule. That he would present case law at the end of the hearing to support Apache's case as they intend to present it. That the argument that penetration of a zone indicates it is producible is against case law. He noted that if two wells are on an undivided tract and compete for the same oil resulting in waste, that waste prevails over the correlative rights argument, even though here there are no correlative rights arguments that can be made.

4. A. Mr. Davis presented his first witness, Terry Brown, a qualified landman familiar with the applications and the emergency requests here. He testified Sundown owns the right to drill, that they acquired assets of McNic which included the interests here. Apache owns in the NW/4 but not in the 1-29 well, that Sundown owns 74% interest in the 1-29 well and IBEX owns 17% interest in the 1-29 well; outside the 1-29 well Sundown owns 8.75% interest. That notice was to all parties entitled to share in production from the 1-29 well and to working interest owners under the operating agreement and all royalty or overriding royalty interest owners in the wells. He explained how he had obtained those names and their addresses. Sundown owns an 8.75% interest in the 2-29 well, having participated in that well. That the 2-29 proposal was made to Sundown and when asked why they did not object to the drilling of the 2-29 well as encroaching a well they believed was producible in the Cherokee, he said that they own a lot of properties and get a lot of proposals and they rely on the operator proposing those wells to follow Commission rules, including obtaining location exception authority for wells they propose. When Sundown intended to recomplete their 1-29 well in the

Cherokee they determined that they had to be 600' from the producing Cherokee 2-29 well and upon review of the rule they believed Apache was not in compliance with it so they filed their application here. Sundown believes they are prevented from producing the Cherokee until this issue about Apache's 2-29 production is resolved.

B. On questioning by Mr. Helm, the witness agreed the Rose Hill 1-29 was drilled in 1997 on an unspaced 158.5 acre tract which is all the NW/4 except for a small area cut out for a cemetery; units for deeper zones are spaced on a 640-acre basis, that Apache owned in Section 29 in the spaced zones when McNic proposed the Morrow/Chester well but they did not participate and assigned their interest to McNic and therefore Apache took no risk in the drilling of the 1-29 well. Sundown and IBEX are successors to McNic and IBEX elected to participate with their 17% interest in the 1-29 well and paid their risk monies and are working interest owners in the well. IBEX participated in the 2-29 well with a 2.38% interest, participating to the full extent of their ownership in both the 1-29 and the 2-29 wells. In 1997 Sundown obtained an interest from Gene Cook a leasehold owner and it was limited to the 1-29 well; subsequently in 2008 Apache acquired from Mr. Cook interest from the surface down to 7000', less than except the 1-29 well bore. In 1997 Mr. Cook assigned well bore rights for the 1-29 well to McNic.

C. On cross by Mr. Grimes the witness said he was an in-house landman for Sundown and their ownership records are available to him ; their records indicate the location of the 1-29 well and the location of that well has been known since 1999. He was aware the 1-29 was a producing Morrow well before Apache proposed their 2-29 well. When asked if he ever thought the 1-29 was a Cherokee well, he said he had no reason to check on it; when asked if he had checked on it, if he would have called it a Cherokee or Red Fork well, he said he would say that Cherokee was behind pipe. He was not aware of any of the files covering the NW/4 of Section 29 showing the 1-29 as a Cherokee well. He agreed the completion report does not show the Cherokee or Red Fork, although it does show the Morrow and the Chester. While he agreed the operator did not indicate the 1-29 was drilled through the Cherokee, the 1002A did reference the Atoka, which he thought might be the Cherokee.

When asked why they were seeking to shut in the 2-29 well the witness said that they believed it was in violation of Commission rules and that it was draining the 1-29 well. He believed Apache was violating Rule 165:10-1-21 since they had drilled closer than 600' to Sundown's producible well. When asked how he determined that the 1-29 was producible in the Cherokee he said that the well was drilled to 7500' and the Cherokee was behind pipe, that the formation had been penetrated and could be developed. When asked how he had determined that it could be developed he stated that the Cherokee was on the geological chart and it would have been penetrated by the 1-29; that any formation on the chart which is penetrated by a well could be producible. When asked hypothetically if the Commission would consider in a Morrow or Chester producing well, that had produced for 50 years and would continue to produce for 50 more years, that any of the shallower zones penetrated by that well would block development of those zones within 600' of that Morrow or Chester producer, the witness said that would be true. As to this unit and the 1-29 Morrow producer he believed that no other well for the unspaced shallower zone could be drilled nearer than 600' to that well, unless they obtained an exception to Rule 165:10-1-21. That the rule would block development of any of those shallower zones, unless the operator obtained such an exception; that it would make no difference if the 1-29 had only one foot of Cherokee, that it would still be considered producible, nor would it make any difference if that one foot were gross Cherokee, that it would still be producible. When asked if that meant Apache should have gotten a location exception for their 2-29 well, he said they would need an exception to the

location rule. When asked if in fact Apache had agreed with that position and had filed for an exception to the general well spacing rule if they would have to give notice to Sundown and he said that would be true under Rule 165:5-7-9. When asked to read it he agreed that the language required notice to operators of encroached offset wells "currently producing" from the same common source of supply rather than notice to an operator of a well that has penetrated the common source of supply and may be considered behind pipe. As a landman he has testified at location exception hearings and he agreed if the location exception is for the Cherokee and if there are three offset Cherokee producers being encroached by the location, notice would be sent to them; but if the three offsets are producing from other formations and not the Cherokee, he would not give notice to them. When asked why he wouldn't do that he said it's because it's spaced; however he admitted the rule does talk about a requested location other than that prescribed by "a rule or order". He agreed that the Commission requires notice to operators of producing wells from the same common source of supply which are being encroached by the off pattern well. He admitted the 1-29 was not produced from the Cherokee; when asked why he called the 2-29 an offset well to the 1-29 he said he was trying to describe the second well on the lease. He agreed the 1-29 and 2-29 are on the same lease and not on adjoining leases and that the ownership difference was due only to private contract agreement. When asked why he thought the Commission should consider private agreement differences in ownership in an undivided tract would put Apache in violation of rule, he said as he reads the rule as it applies to this lease there needs to be compliance, otherwise Sundown should be able to produce their well.

As a second reason for requesting shut in of the 2-29 well the witness agreed that he had noted drainage. When he was asked what drainage he was referring to, he said it would be drainage of Sundown's potential production, and he agreed that was not drainage of a producing well, nor of a well in an offset, but that it was potential production in a well bore privately owned in a different manner for Sundown and Apache. He believed that would be drainage because Sundown has Cherokee behind pipe in the well bore and according to the rule for development on the lease, Apache's well does not conform to the rule and is too close to the 1-29 well. When asked hypothetically if there were eight wells in a tract which penetrated the Cherokee and one of those wells produced Cherokee and all were within 600' of each other if all those wells should be able to produce if there were different ownerships within each well and he said he wasn't sure of the circumstances and couldn't say.

When asked why Sundown didn't complete and produce the Cherokee in the last eight or nine years he said he didn't know, that he had never proposed completion of the Cherokee in the 1-29. He agreed it was only considered after Apache proved up the Cherokee, that they had evaluated Apache's proposal and decided they would let Apache prove up the Cherokee and then produce their 1-29 well, which they had the right to do. After Apache spent their risk money in proving up the Cherokee, that Sundown now wants to shut in the Apache well and produce the same oil that the Apache 2-29 is currently producing. The Commission has the right to determine waste, but he believed Sundown has the right to produce their reserves, unless the Commission determined they can't because of waste. They were requesting to shut in the 2-29 on an emergency basis. McNic proposed the 1-29 as a Chester Morrow well and both those zones are spaced on a 640-acre basis.

That Sundown was not coerced into just obtaining well bore rights from Mr. Cook, that Sundown drilled the 1-29 and did nothing with the Cherokee for eight or nine years, that wells can be drilled and not perforated or tested up hole while they produce from lower zones. He believed by doing this

that would block development within 600' of the 1-29 well in those upper zones. When asked if he believed that prevented waste he said he did.

IBEX participated in the 2-29 and no one at the time that well was drilled objected to the location. Sundown did not object to the location of Apache's proposal of the 2-29 well and their proposal described the location to show that it was within 600' of the 1-29 well. He noted a number of operators propose wells and then come into compliance, so it could be that they thought Apache would seek an exception to the general rule. He believed under the rule that Apache would have to notify Sundown of their location. That Sundown did not object to Apache about not receiving notice that this would be what Sundown believed to be an off pattern well. When asked if they thought it was an illegal location why they then participated and he again said that they would expect the operator would be in compliance when the well was drilled. That they wanted to see if Apache could produce the Cherokee and then intended to develop Cherokee in the 1-29 well.

D. On redirect the witness agreed the rules he had been questioned about, 165:10-1-21 and 165:5-7-9, were two different rules; one applied to unspaced areas and one applied to notice for an off pattern well. He noted that he did not interpret rules, that the Commission interprets their own rules. When asked if Sundown thought the 2-29 well was an illegal well when they elected to participate, he said he had no knowledge of the rule at that time. As to questions about blocking of development of shallower zone under the general rule, he believed if an operator complied with the general rule requiring the 600' set back by the second well, it would not block development.

E. On questioning by Mr. Helm the witness agreed as to the general rule and the notice requirement for exception to locations, that the Commission chose to use "producible" in the general rule language and they chose to use language in the location exception notice of currently producing. That if the 2-29 were 600' from the 1-29 then Sundown could complete in the Cherokee, but since it is closer than that Sundown felt they had to get an exception before they could recomplate into the Cherokee. He agreed that the parties paying their risk money in the 1-29 well want to enjoy development and production from any zone present in the well bore. He believed participants in the 1-29 well want the opportunity to complete and produce from any zone capable of production. There would be later witnesses to discuss the zones and nomenclature listed on the 1002A for the 1-29.

5. A. Mr. Davis called his next witness Carol Kenney, a geologist qualified to testify in matters of this kind who had been retained by Sundown for this hearing. She identified Exhibits 2, 3 and 4 as form 1000s 1002As, and permits for the 1-29 and the 2-29 and a form 1000 and permit for the 4-29 well. She had made a study of the area and had prepared Exhibits 5 and 6. Exhibit 5 is a net isopach of the Cherokee pay based on a 6% porosity cutoff from density logs where available; she had used a 6% porosity cutoff because this is a limestone and she believes 6% would be a good cutoff for determining pay. That she calls this Cherokee pay because that's what the operators in the area call it; that her Exhibit 5 shows different trends; the trend that crosses this section runs from Section 19 into Section 29. The first well in that trend would be the McElhiney 19-3 in the SE/4 of Section 19, after that the 19-4 was drilled to the north and then the Rose Hill 2-29 was drilled. She opined the first two wells were in normal progression and that the third well was pretty far to the south; she thought the third well in a normal progression would have been in the NW/NW/NW of Section 29, which is the same location as the 4-29 permit reflects for a proposed well. Exhibit 4 is the permit for the 4-29 which has not been drilled. When asked why the 2-29 was drilled where it was located she said she believed it was because the 1-29 had Cherokee zone on the log which looked productive so they twinned that well.

As to nomenclature she said that in the area they call this the Cherokee but McNic called it the Atoka in the 1-29 completion at the depth of 6200'; other operators called it Cherokee at 6200'. For purposes of testimony today she would call it Cherokee, but believed it was what McNic called the Atoka. Neither the Cherokee nor the Atoka is spaced in Section 29 nor in Section 19; the Cherokee in Sections 29 and 19 is the same common source of supply and is shown to be productive.

Her Exhibit 6 cross section shows the productive interval in Section 29 is from 6406' to 6508' and is perforated 6444' to 6506'. The Exhibit 2 completion report lists the Atoka at 6415' and Exhibit 6 shows it in the 1-29 well at 6414' and in the 2-29 at 6406'; that what McNic called the Atoka is this Cherokee member. The Cherokee in the Dannettell 1-19 well was at 6182', in the McElhiney A2 it was at 6215' and in the Wheeler 1-29 it was at 6187' and those do not correlate to the Atoka in the 1-29 or the 2-29 wells, so McNic was aware of the Cherokee in 1997 but they called it the Atoka. When asked what risk Apache took in drilling the 2-29, she said they knew there was porous zone existing in the 1-29 well, so by drilling close to it they minimized their risk. The Cherokee thickness in the 2-29 was greater than in the 1-29, she gave 24' of net in the 2-29 and 11' in the 1-29. Asked if she agreed Apache "found" the Cherokee she said they found what was in the 1-29.

B. On questioning by Mr. Helm she said the yellow highlight on the Exhibit 6 logs was the 6% line and that was what was mapped; she believed this interval was a limestone and on the geological chart for northwest Oklahoma the Red Fork Cherokee is generally a sand so she would not call the interval here Red Fork or Cherokee; that the 1-29 and 2-29 correlate for this limestones as can be seen on Exhibit 6. As to Atoka lithology she said that above the Thirteen Fingers is an Atokan limestone that is called the Novi, although it's not on the charts; the producing zone in the 2-29 appears to be a limestone. The 1002A filed by McNic for the 1-29 called it Atoka at 6415', and there was no confusion in that. The McNic 1002A does not list the Cherokee and it doesn't matter what the name of the interval is called, that they have a top of 6415' and it correlates to the interval here. That the 1997 log on the 1-29 shows a producible interval, although it was not producing in the area, it was a porous zone with a clean gamma ray. That interval first produced in the McElhiney 19-3 with first sales in November 2007 and also there are some wells in Sections 30 and 31 which were completed in 2004, 2005 or 2007. When the 2-29 well and the 19-3 and the 19-4 wells were all drilled the 1-29 log was available for correlation. For picking the location of the 2-29 well she believed it was obvious that the log of the 1-29 was influential; that there was 347' between the 1-29 and the 2-29.

C. On cross when asked if they were here today to ask the Commission to advise what "producible" means she said it was important to determine that. As to the 11' of Cherokee pay she gave in the 1-29 she was asked if it was producible and she said it was capable of being produced. When she was asked if there were no log available, if one could conclude the zone was producible, she said one might if there were producing wells in the area. She agreed the general well spacing rule is a state-wide rule and therefore it might apply to tracts where there are no logs and no producing wells in the area, but there may be wells that penetrated the zone of interest. Here they have a log and producing wells in the area and were asking the Commission to determine the 1-29 well as a producible well. When asked why they would have a rule requiring so much interpretation, she said she couldn't say why the Commission used that terminology or those words.

On her Exhibit 5 map she coded the 1-29 well yellow for Morrow production and when asked why, she said a review of the 1002A or scout ticket

show current production is from the Morrow. As to Apache's minimized risk by locating the 2-29 based on knowledge of the 1-29 well, she stated that wasn't a criticism of their methodology, that to twin near a log with porosity in an interval is to minimize the risk. She acknowledged Apache did not try to hide anything from Sundown based on Mr. Brown's own testimony, nor did Sundown object to Apache's location. On Exhibit 6 the yellow and red highlighting on the 2-29 well correlated to the 11' highlighted in yellow on the 1-29 and apparently that 11' was part of the same zone highlighted and producing in the 2-29.

6. A. That Mr. Davis called as his third witness Michael Glen Davis, a qualified petroleum engineer retained by Sundown to do a study of this unit. He had reviewed production history, scout ticket data and logs and had relied on no proprietary data for Exhibits 7, 8 and 9. Exhibit 7 plots Cherokee production in Harper County and the X marks the Rose Hill lease; to the northwest are older Cherokee wells. He concluded from Exhibit 7 is that the Cherokee is a northwest-southeast oriented reservoir with a couple of different trends. The gas wells to the northwest were drilled in the 80s, further to the southeast are newer wells whose drilling started in March of 1997. Exhibit 8 is a composite exhibit; on the bottom left is production history for the Rose Hill 2-29; he plotted that at the top of the exhibit and for extrapolation he used the 19-3 McElhiney well history curve to project an EUR of 52,000 barrels of oil; the 2-29 had a cume of 18,600 barrels at the time this exhibit was prepared but the cume now is around 26,000 barrels. From Exhibit 8 he concluded the 2-29 is a commercial oil well.

In the middle of the Exhibit 8 are certain parameters from the 2-29 well log; he shows 24' of 10.3% porosity with 14% water saturation and using a reasonable recovery factor of 10%, he's determined this well will drain about 43 acres. From this exhibit one can see how far out a well's voidage will reach and these two wells would be in communication. Exhibit 5 shows the 1-29 and 2-29 are about 347' apart and the 2-29 with a drainage radius of 720' over the 24' of thickness, impacts the 1-29.

His Exhibit 9 is prepared to show revenue loss occurring due to the 2-29. The top reflects the parameters for the 2-29 as reflected on Exhibit 8 and below that are the values for those same parameters for the 1-29 well and in comparing the hydrocarbon pore volume he determined 35% of the HPV of the reservoir is behind pipe in the 1-29 and would be in competition if both were producing. He calculated 35% of the rate of the 2-29 well and allocated \$48 for oil and \$4 for gas and determined there was a loss of revenue for the 1-29 of 80% of \$78,000 per month or that would be \$2600 a day and if he assumed that each well would get 50% of that that there would be a \$1,309 a day loss to the 1-29; his simple formula for that would be the 2-29 production times 35% divided by 2 and that would equal the loss to the 1-29 if both wells were producing from the reservoir. To explain further he noted there is only one stringer of the Cherokee in the 1-29 which represents 35% of the overall pay since there are three of those intervals in the 2-29; therefore he believed that if both wells were producing they would be competing and therefore one-half of the 35% of the HPV being produced is being drained from the 1-29. That the 1-29 cannot out compete the 2-29 and the 2-29 can produce from intervals which are not present in the 1-29. He opined the financial loss to Sundown was \$1,309 a day or \$39,292 a month. He did not review all of the Cherokee wells on Exhibit 7 but he knew they all penetrated into the 6200' top of the Atoka or Cherokee and deeper; that the original Richter Cherokee well had a 6150' top and it was completed at 6380'. He opined that Apache incurred no risk in drilling the 2-29 well because of the geological control in the area.

His definition of producible would be a reservoir with sufficient engineering and geological characteristics to show the zone in question is

capable of producing oil and gas in commercial quantities. On a log he would look for good porosity, low water saturation and sufficient thickness for a commercial well and then he would want to see if the zone produces in the area. If one knows the character of the interval and compares that to a log of a producing well, one can determine if an interval is producible. That his definition of producible is based on his 33 years experience as an engineer, a log analyst and a completion engineer as well as his review of other engineer's work. The Cherokee interval in the 1-29 and the 2-29 meet the criteria for his definition of producible; there are other producing Cherokee wells in the area such as the 19-3 well

Mr. Grimes objected to admission of Exhibits 7, 8 and 9 as to drainage, that it is not relevant, that there cannot be drainage between owners in common unit and there can't be drainage by a well completed in an interval from a well bore that has not been completed in that interval. Mr. Davis responded that it was not a valid objection that it was a lawyer objection to an engineering exhibit that he believed it was relevant. Mr. Helm supported admission of the exhibits noting that the ALJ could give exhibits the weight she deems they deserves; he believed there were correlative rights between twin wells here. The ALJ admitted the exhibits over the objection. The ALJ did not admit Exhibit 10 to which Mr. Helm and Mr. Davis took exception.

B. Upon questioning by Mr. Helm the witness said he had reviewed the 1-29 completion report and the TD shown is 7500' with production casing set at 7475', cemented to 6330' which is over the Atoka zone; completions started at the bottom in the basal sand where the gas was too small to measure; then they came up to the Chester and got 125 MCFD, they set a plug, came up and completed the Morrow and did not produce from the Atoka/Cherokee. The way they set this well up appeared to be prudent, so that they could later develop the upper zones rather than have to squeeze and develop later. He agreed at the completion stage zones should be evaluated as to whether they are oil or gas productive, that one would not want to complete an oil-water zone above a gas zone; one would want to complete zones with similar productions and similar pressures. The Morrow is gas productive and the Cherokee is oil productive and there would be some risks to test the shallower zone if the target zone is deep, that if one has a producing zone and sets a plug to kill operations and then perf and frac above and test that, then you have a plug that may or may not hold; once the upper zone is tested you then have to kill the zone you just completed and then go back to the lower zone. It all begins to get risky so it's better to work up from the total depth.

He had evaluated the Morrow life remaining in the Rose 1-29; it is currently producing about 15 to 16 MCFD and it's on its last leg; it has cumed about 253 MMCF and has about 5000 to 8,000 MCF remaining. He believes this well is a candidate for recompletion and opined it should be recompleted in the Cherokee. Owners in the 1-29 well will lose value in their investment if they cannot develop the Cherokee. Owners in the 1-29 well would have determined the presence of Cherokee when they logged their well originally and he believed it would have been their intent to develop it later.

That he is sometimes asked to do reserve reports for an operator; he would list all wells the operator owns an interest in and then do a traditional reserve report on proved producing properties and then forecast out future production and quantify the value of that future production and all these are called proved developed producing reserves. That in those same wells he will analyze other intervals by reviewing the logs and reviewing wells in offsets that produce from those intervals and that is called proved developed nonproducing reserves and those are producible but are not producing currently. To determine value of those reserves he looks at the quality of the zone from the logs and production from those zones in offset wells; that the

SEC allows one to book proved developed behind pipe reserves; that the SPE interpretation is more liberal for proved reserves, that production does not have to be in the offset that it can be in the area. For categorizing reserves for proved behind pipe or proved developed nonproducing or proved developed producing reserves he would look to the SEC and SPE standards and his experience.

C. On cross when asked what "loss" meant on his Exhibit 9, he said he had calculated the loss of value to the 1-29 owners and he used an 80% NRI. He agreed in order to lose something, one has to own it first, and he had assumed that owners in the 1-29 well owned the oil which he believes is being lost to the 2-29 well. When asked if he were advised that in Oklahoma oil and gas is not "owned" by a company until it is reduced to possession at the surface, he said that wouldn't change his opinion; that if Mr. Grimes were correct he did agree that owners of the 1-29 well in order to own the oil would have to reduce it to possession. He acknowledged that the 1-29 does not produce from the Cherokee and therefore if Mr. Grimes were correct about the law, Cherokee oil could not be owned by parties in the 1-29 well until that well begins to produce and therefore their loss at this time would be zero; however the witness noted that the loss to the owners is their ability to produce. When asked what the 80% represented he said it was the NRI he had assumed for Sundown and IBEX; when questioned about this he said he wasn't sure what their NRI was, it was a 1963 lease and he couldn't determine the NRI. He understood IBEX and Sundown participated in the 2-29 well and they were paid for a share of production from this tract, but he did not factor that in on the loss; that he considered only the portion of the reservoir that would be in competition, That they did get some production from the Cherokee and he agreed the loss shown upon his Exhibit 9 was based on what he believed the 2-29 well was taking from the 1-29 well, yet he had made no deduction from the loss for monies paid to Sundown and IBEX in the 2-29 well. When asked why he had used the term "competitive reserve" he noted that these wells are so close that they will be seeing each other; that he had calculated the 2-29 would drain 43 acres with a 770' radius and that radius would extend 400' out from the 1-29 well. He agreed that if the 1-29 is not produced that the 2-29 would get most if not all of the oil that the 1-29 could have produced. He believed these wells were too close together and from an engineering standpoint he agreed that they did not need two wells this close together in this tract; that with the 2-29 producing from the Cherokee the witness agreed that it did not need to be offset 347' by another Cherokee producer, that those wells are too close to each other. When asked if it was economically wasteful to bring the 1-29 in competition the witness responded that if ownership were the same they would not want to recomplete the 1-29.

He agreed that the 2-29 had two intervals in the Cherokee that the 1-29 did not have. He agreed that the competition referenced on his Exhibit 9 was based on a "right" of 1-29 owners to compete for their fair share of reserves; he acknowledged that here there is one lease which conveys 100% of the minerals in the northwest tract and he was asked why he would say the owners would have a right to a fair share and he explained that the 1-29 owners took a risk to compete for their share of reserves of all of the zone and now they want to exploit the zones that are producible in the 1-29 well. That he didn't know how much Sundown paid to participate in the 1-29 well, that he didn't know if they paid anything although he did know they obtained their interest from McNic. When asked what IBEX paid to drill the 1-29 well he said he could not recall that; when asked if he had been told that they had paid to participate in the drilling of the well or whether he had been told the well had been acquired by them after it was drilled he said he wasn't clear on that.

Regarding the guidelines for definition of the SPE he agreed that the definitions might be moderately dynamic but he didn't think so for this

case and for reserve value these standards would require the interpretation of a petroleum engineer determining value. When determining the booked reserve values behind pipe he was asked if that would be reserves that the operator does not yet own until they are produced and he said they would be valuing reserves that they hoped to have the right to produce. He agreed that if two people review a Commission rule and one of those is an engineer and the other isn't that they might reach different conclusions as to what the rule stands for, however he noted that the rule does use the term producible and to distinguish that from producing and he believed that logic would dictate that the Commission meant to protect zones that were not just producing or not just drilling but were capable of being produced.

7. A. That Paul Brindle, a landman qualified to testify in matters of this kind, appeared on behalf of Apache and stated that he had heard the Sundown testimony and he identified Exhibit 11 as the fax cover sheet from Sundown with their election to participate in the proposed Rose Hill 2-29 well. Exhibit 12 is his proposal letter with AFE; the proposal reflects information about the 2-29 and he indicated that this will be drilled on lease basis and he included a listing of all the working interests of all the partners; that page 2 reflects the block for election and date and it shows Sundown's election to participate. Exhibit 13 is a July 23, 2008 letter with part of an AFE attached, that as a whole this is the letter from IBEX with Apache's election block page from their proposal letter and it shows both Arapahoe and IBEX elected to participate. As a landman he generated the proposal shown on Exhibit 12 which describes the Rose Hill 2-29 as being 1100' from the north and 1650' from the west boundary of the tract. The well was drilled and it is 347' from the 1-29 well; if one read the proposal letter, one would know the location of the 2-29 well and that upon receipt of the letter and knowing the location of the 1-29 well one would know how far it would be from the proposed 2-29 well. When asked what the terminology "lease basis" meant on his Exhibit 12 proposal, he said it meant this was an unspaced tract and that the objective is the unspaced Cherokee. That his notation as to contractual working interest means that since this is being developed on lease basis and covered by an JOA, all the lease hold interests are under a JOA and so all the working interest owners have a contractual interest in the production. The well was proposed under Article II of the JOA. Exhibit 14 is the original lease from Stinson to Tresner for the NW/4. Exhibit 15 reflects the mineral ownership by tract and had been prepared by their title attorney. As to Exhibit 14 he noted that F.E. Stinson in 1956 owned all the mineral interest in the NW/4 less the cemetery acreage and all of that is covered in the lease; that the lease was for ten years and a well was drilled within that timeframe; the mineral owners reflected on Exhibit 15 do not own minerals under the cemetery but they do own in all the remaining tract an undivided interest. Exhibit 16 is an Assignment of Bill of Sale whereby Apache purchased the lease hold interest of Gene Cook which includes the F.E. Stinson lease covering the NW/4 of Section 29. Apache did not own an interest in the NW/4 prior to the Exhibit 16 assignment; that neither Cook nor Apache were signators to the JOA but that interest as transferred was subject to the JOA, so the well proposal he made was under the terms of the JOA. When Apache acquired their interest from Cook they knew he had made contractual arrangements with others as to the 1-29 and had assigned to McNic his rights to 100% of the wellbore, so when Apache acquired their rights from Cook, they did not include the 1-29 well.

Page 2 of Exhibit 11 shows Sundown's election to participate in the 2-29; Sundown owned a 8.75% interest and participated with it in that well and IBEX owned 2.38% interest; Apache owned 78% interest in the 2-29 but none in the 1-29. Apache's ownership report showed Sundown owned 65.24% and IBEX owned 15.98% in the 1-29, but based on testimony today it appears Sundown owns more than that. Until Apache protested the location exception requested by Sundown he had never heard any objection by anyone who

participated in the 2-29 well about its drilling or location. Sundown did not file an application for their exception to the location requirement until after Apache drilled, completed and produced their well in the Cherokee. Apache did not obtain a location exception under the general rules when they drilled their well because there was no Cherokee production in Section 29 in the NW/4 or elsewhere.

B. On cross by Mr. Davis the witness said he did not get an exception to 165:10-1-21 for the 2-29 well. When asked who determined that rule didn't apply, he explained this is unspaced for the Cherokee and he reviewed for other Cherokee producers and found none and since they were not crowding the lease line or any Cherokee producers they didn't feel that rule applied. When asked if he had checked with Mr. Brown, the landman at Sundown, he said he hadn't. When asked how much Apache paid to acquire their interest in the unit he said they paid \$398,000 and acquired the interests February 26, 2008. Their well proposal to Sundown was received June 25, 2008. When the 2-29 was proposed to Sundown he was asked if he was aware the 2-29 would be 347' from the 1-29 well, he said he knew there was a well there but wasn't sure of the distance.

C. On cross by Mr. Helm, the witness said Apache acquired their first interest in Section 29 in 1997-98 in a purchase deal with Aquilla. They obtained a small leasehold which they assigned out around the time the 1-29 was drilled; Apache did not have a working interest in the 1-29 and from a review of the files he thought they possibly never had an interest in the 1-29. Their interest in Section 29 is through Mr. Cook whose interest was subject to a JOA. He believed the Apache proposals for the 2-29 were clear about the location of the well, although he agreed that it did not state proximity to the 1-29 well. Apache did not get a location exception for the 2-29 since there was no Cherokee production in the NW/4 of Section 29, nor anywhere else in Section 29; that it was his determination a location exception was not necessary based on a review of the general well spacing rule and in consultation with their attorney in determining whether the 1-29 was producible. That he had reviewed Rule 165:10-1-21 when Apache's geologist determined where to locate the 2-29 well and this was long before preparation for this hearing; that he had always known the 2-29 was closer than 600' to the 1-29 but the 1-29 is not producing from the Cherokee. He relied upon the location exception notice requirement in determining a location exception was not necessary if they were not closer than 600' from a producing well; that he was aware the general rule said producible rather than producing; he understood that one term deals with notice requirements while the other term deals with location exceptions. He agreed that in his experience location exceptions are for spaced units while here there's an exception to the general rule for unspaced areas with location restrictions. In reference to Exhibit 1 (the rule) he agreed the first thing one would consider would be the depth and that the Rose Hill 2-29 Cherokee would be deeper than 2500'; as to the distance to the boundary he agreed that their location was not in violation of that requirement; that the requirement that it be not closer than 600' from any producible or drilling well he said he knew that their location was closer to the 1-29 well than 600' and at that point he would have to determine if that well was producible or drilling and it was not drilling. That he had determined it was not producible because it had not tested the Cherokee and it was a Morrow gas well and it didn't even list Cherokee on the completion report. When asked if he had reviewed the test data on the well he said he hadn't but he had reviewed the completion report of the 1-29 and he had done that prior to the proposal of the 2-29 well. That as a landman he was not aware of any distinction between the Atoka and Cherokee, nor was he aware of the confusion in terminology regarding these two zones.

He agreed that the Commission has used "currently producing" in other rules, especially in the notice rules for the location exceptions. He was aware that 165:10-1-21 does not use that term. That he had looked at the wording of the rule and the word producible and in consultation with his attorney determined that it would mean more than penetrated; that had the well tested or temporarily produced the Cherokee and then ceased production to then produce the Morrow, it would be producible in the Cherokee. He agreed determination of "producible" would be interpretative; that for the Rose Hill 1-29 well if there had been more than penetration of a formation it would require more analysis to determine if the zone were producible or not; that here Cherokee was only penetrated and he objectively reviewed that and determined it wasn't a producible well. It's part of his job to make sure Apache doesn't break rules, so he tries to be objective in such determinations. That he understood if the Commission did determine that the 2-29 is drilled too close to the Rose Hill 1-29 well, which they would have found to be producible, then the 2-29 well would be in violation of that rule and would not be a legal well.

D. On redirect the witness said he understood the attorney-client privilege and when asked by Mr. Grimes who he had contacted regarding the issue of producible he said he had contacted Mr. Grimes. They had discussed this issue back in June; that since then they had discussed that conversation. Mr. Grimes had told him he did not need an exception to the general rule; Mr. Grimes had indicated it would be absurd for the Commission to get into an interpretative circumstance of saying wells that had never been tested or completed would have to be considered producible based on interpretations of geologists, engineers or the like. He relied on that opinion and filed his form 1000 and proceeded in the development for the Rose Hill 2-29. At the time he had contacted Mr. Grimes he had already reviewed the completion report and noted that there had been no test and no attempted completion of the Cherokee; that he had been told that the best they could determine under Oklahoma law was that if zone had only been penetrated and logged that the Oklahoma Supreme Court had found that does not form the basis of a conclusion that a well is capable of producing.

8. The ALJ verified that the issues to be addressed were an emergency request in CD 200807531, an exception to the general rule for unspaced area; and an emergency application in 200808325 to shut-in the Rose Hill 2-29 well; and also in CD 200808325 a Motion to Dismiss the Sundown application to shut-in the Rose Hill 2-29 well. Mr. Grimes stated that he had filed the motion to dismiss and asked that it be incorporated into this record and that the ALJ address that based on testimony presented throughout the hearing.

9. The ALJ took the causes under advisement and closed the record.

10. After taking into consideration all the facts, circumstances, evidence and testimony presented in these causes it is the opinion of the ALJ that when Apache chose to develop the Cherokee on the unspaced tract they rightly reviewed rule 165:10-1-21 and were then required to determine if there were existing producible wells in the tract that would require setoff distances for further development. The rule references "producible" and logic would indicate that one should be able to determine "producible" from a review of available information concerning the tract. The landman having seen no data in any of the filings to indicate the Cherokee had been produced, nor tested nor even penetrated in the tract, determined the Cherokee was not producible and proposed the 2-29 well. That such was a correct determination was reinforced when the operator of the 1-29 well did not object to the proposed well at the proposed location and in fact participated in the 2-29 well. Additionally when Apache filed their intent to drill on an unspaced tract the Technical

Department did not have a problem with the request and approved the intent. Only upon Apache's obtaining production in the 2-29 did Sundown decide to try to develop Cherokee reserves through their bore hole. They then determined their location would require an exception to the distance requirement under rule 165:10-1-21.

Sundown argues that any penetrated formation in a well, regardless of thickness or porosity, is producible. Although the ALJ agrees a zone penetrated has been proven to exist at the well bore site, something more is required to meet the criteria of producible. To view it otherwise would require not only interpretation of an existing well's data by a party who may or may not have been a participant in that well, but it would also require speculation as to the interpretation and the intent of the operator of that well. This all becomes too tenuous and interpretative and it is the opinion of the ALJ that Apache's well is not an illegal well. It is therefore the recommendation of the ALJ that Sundown's motion in 200807531 to shut-in the 2-29 well be denied. Sundown also had an application to shut-in the 2-29 well in CD 200808325 and an emergency application seeking to shut-in the 2-29 well on an emergency basis and for the same reasons that this is a legal well producing Cherokee reserves in an unspaced tract, it is also the recommendation of the ALJ that such emergency shut-in request be denied. As to Apache's Motion to Dismiss Sundown's application to shut-in the 2-29 well it is the recommendation of the ALJ that said motion be granted. The 2-29 is located as a legal well in an unspaced tract and it is producing from three intervals within the Cherokee and it would constitute a waste to shut-in such a well.

As to Sundown's request to recompleate the 1-29 well on an emergency basis in CD 200807531 in order to protect against drainage, it is the recommendation of the ALJ that such emergency request be denied. As earlier stated it is the opinion of the ALJ that the 2-29 is a legal well and Sundown's own witness testified that it could drain 43 acres in this tract and to authorize the 1-29 to recompleate in the Cherokee and commence production on an emergency basis to drain the same reserves the 2-29 well is currently capable of producing would constitute waste.

RESPECTFULLY SUBMITTED THIS 23rd day of December, 2008.



SUSAN R. OSBURN
ADMINISTRATIVE LAW JUDGE

SO:ac

xc: Commissioner Cloud
Commissioner Anthony
Commissioner Roth
Ben Jackson
Sally Shipley
ALJ Susan R. Osburn
Charles Davis
Charles Helm
Richard Grimes
Keith Berry
Office of General Counsel
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