March 1999

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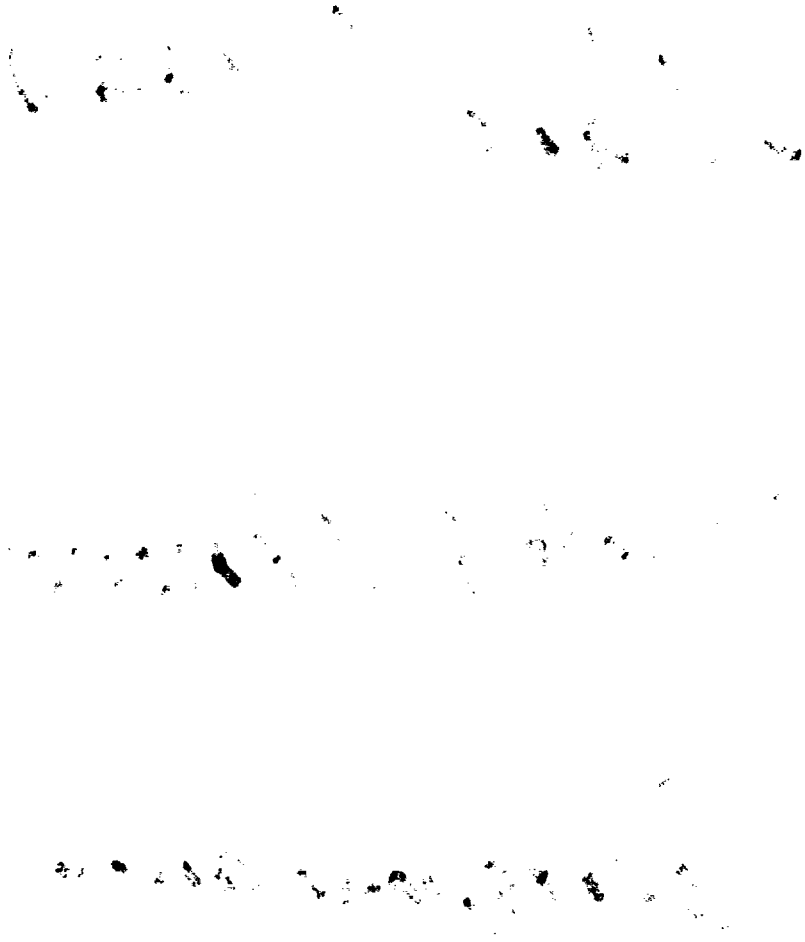
Correspondence



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PLEASE REPLY TO SANTA FE

March 26, 1999

Lori Wrotenbery, Chairman
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Santa Fe, New Mexico 87505

Ms. Jamie Bailey
New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe, New Mexico 87504

Dr. Robert Lee
Petroleum Resource Recovery Center
New Mexico Tech
801 Leroy Place
Socorro, New Mexico 87801

Re: NMOCD Case No. 11996; Application of Pendragon Energy Partners, Inc. to Confirm Production from Appropriate Common Source of Supply, San Juan County, New Mexico (Order No. R-11133)

Dear Commissioners:

Enclosed is a complete copy of the draft order submitted to the Division on behalf of Pendragon on August 13, 1998. Pages 2, 3, 4, 5, 6, 10, 11, 12, 15 and 16 were omitted from the copy that was attached as Exhibit A to the Response in Opposition to Motion for Partial Stay of Order R-11133 filed on behalf of Whiting Petroleum and Maralex Resources.

Very Truly Yours,

J. Scott Hall

JSH:cw
Enclosure:

cc: Marilyn Hebert, Esq. (w/enclos.)
Michael Condon, Esq. (w/enclos.)

STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 11996

APPLICATION OF PENDRAGON ENERGY PARTNERS, INC., AND J. K. EDWARDS ASSOCIATES, INC. TO CONFIRM PRODUCTION FROM THE APPROPRIATE COMMON SOURCE OF SUPPLY, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on July 28, 1998 at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this _____day of August 1998, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The Applicants, Pendragon Energy Partners, Inc. and J.K. Edwards Associates, Inc. seek the issuance of an order determining that six of the Pictured Cliffs Formation Wells owned and operated by them are completed in and producing from the appropriate common source of supply pursuant to Rule 3 of the Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool, Order No. R-8768, as amended, and 19 NMAC 15.E.303.A of the Division's Rules and Regulations requiring the segregation of production from separate sources of supply.

(3) The Applicant, Pendragon Energy Partners, Inc. ("Pendragon") is the operator of the following wells (The "Subject Pictured Cliffs wells" or the "Chaco

wells") previously drilled to and completed in the Pictured Cliffs formation at the locations described below (the "Subject Lands") on the following respective dates:

Well Name	Location	Date
Chaco No. 1	NW¼, Section 18, T26N, R12W	March, 1977
Chaco No. 2R	SW¼, Section 7, T26N, R12W	January, 1980
Chaco No. 4	NW¼, Section 7, T26N, R12W	May, 1977
Chaco No. 5	SE¼, Section 1, T26N, R13W	May, 1977
Chaco Ltd. No. 1J	SW¼, Section 1, T26N, R13W	April, 1982
Chaco Ltd. No. 2J	NE¼, Section 1, T26N, R13W	May, 1979

(4) By Order No. R-8768 and No. R-8768-A, the Division created a new pool in all or parts of San Juan, Rio Arriba, McKinley and Sandoval Counties New Mexico classified as a gas pool for the production from the Fruitland Coal seams and designated the pool as the Basin-Fruitland Coal Gas Pool. The wells and the lands that are the subject of this proceeding are located within the horizontal limits of the Basin-Fruitland Coal Gas Pool as defined by Order R-8768 in R-8768-A. The Order also established the vertical limits of the pool by reference to the Amoco Schnieder Gas Com "B" well No. 1 located in Section 28, T-32-N, R-10-W.

(5) By Order No. R-8769 entered by the New Mexico Oil Conservation Division on October 17, 1988 in Case No. 9421 and subsequently amended by Order No. R-8768-A, nunc pro tunc, the Division defined the vertical limits of the WAW Fruitland-Pictured Cliffs Pool as follows:

> The vertical limits of the WAW Fruitland-Pictured Cliffs Pool in San Juan County, New Mexico are hereby contracted to include only the Pictured Cliffs formation and the sandstone interval of the Fruitland formation and said pool is hereby redesignated as the WAW Fruitland Sand-Pictured Cliffs Pool.

(6) At the hearing in this matter, Pendragon Resources, L.P. entered its appearance in support of the Application. Whiting Petroleum Corporation and Maralex Resources, Inc. also entered their appearance and presented evidence in opposition to the application.

(7) Whiting Petroleum Corporation and Maralex Resources Inc. both own working interests dedicated to the following Fruitland Coal Wells (the "Subject Coal Wells") operated by Maralex and drilled in 1992 and which were frac'd by Maralex in 1993:

Well Name	Location
Gallegos Federal 26-12-6 No. 2	W½, Section 6, T26N, R12W
Gallegos Federal 26-12-7 No. 1	W½, Section 7, T26N, R12W
Gallegos Federal 26-13-1 No. 1	E½, Section 1, T26N, R13W
Gallegos Federal 26-13-1 No. 2	W½, Section 1, T26N, R13W

(8) Whiting and Maralex were applicants in an earlier proceeding before the Division in Case No. 11921 wherein they alleged generally, that as a result of drilling or the fracture stimulation, the Pendragon operated Pictured Cliffs Wells had become communicated with and are producing from the Basin-Fruitland Coal Gas Pool. Whiting and Maralex further contended that the Pendragon Pictured Cliffs wells were draining reserves owned by Whiting and the other interest owners in its wells and that their correlative rights were being impaired as a result. In their application, Whiting and Maralex sought to have Pendragon's Pictured Cliffs Wells shut in. On May 26, 1998, Whiting and Maralex sought to withdraw their application in Case No. 11921. Whiting and Maralex have subsequently asserted that Pendragon reperforated its Chaco No. 1, Chaco No. 2-R, Chaco No. 4 and Chaco No. 5 wells directly into the Fruitland formation coal bed.

(9) The parties presented evidence establishing that J.K. Edwards and Associates, Inc. and Pendragon Energy Partners, Inc. and Pendragon Resources L.P. acquired rights from the base of the Fruitland Coal Formation to the base of the Pictured Cliffs Formation and that Maralex Resources Inc. and Whiting Petroleum Corporation obtained rights from the surface to the base of the Fruitland (Coal Gas) Formation.

(10) Evidence presented by Pendragon established that the Subject Chaco Wells were perforated at the following intervals and received acid or fracture stimulation treatments on the following dates:

Well Name	Perforation Interval	Date	Stimulation	Date
Chaco, Ltd 1-J	1200-1209'	08/82	Acidized	01/95
Chaco 4	1163-66' 1173-89'	05/77	Frac'd & Acidized	05/95 01/95
Chaco 2 R	1132-1142'	01/80	Frac'd	01/95
Chaco, Ltd 2-J	1186-88.5' 1200-1202.5'	12/79	Frac'd Acidized	12/79 02/95
Chaco 5	1165-69' 1174-92'	05/77	Frac'd Frac'd	05/79 05/95
Chaco 1	1113-19' 1126-28' 1134-39'	03/77	Frac'd	01/95

(11) The referenced perforations were made by Pendragon's predecessor in interest, Merrion and Bayless Oil and Gas Company, and were reported to the Division on C-102 forms and to the Bureau of Land Management on BLM Sundry Notice forms.

(12) Whiting and Maralex have asserted and continue to assert that the upper set of perforations for each of the Subject Pictured Cliffs wells are at depths equivalent to the Fruitland Sandstone member of the Fruitland formation. It is the position of the Applicants that the upper set of perforations are located in what has been identified the as the Upper Pictured Cliffs sand and what has been recognized by geologists, operators and the Division as Pictured Cliffs.

Pendragon and Edwards presented geologic evidence which established the following:

(13) Casing collar survey logs performed in May and June of 1998 conclusively established that none of the subject Pictured Cliffs wells were perforated or reperforated in the Fruitland Coal Formation.

(14) The discovery well for the WAW Pictured Cliffs field, was the WAW No. 1 drilled in the NW/4 of Section 32, T-27-N, R-13-W, NMPM and completed on June 30, 1970 by Dugan Production Corporation. The pick for the top of the Pictured Cliffs formation sandstone by Dugan geologists for the WAW No. 1 was at a depth of 1317 feet, which is above the Upper Pictured Cliffs sand.

(15) The Chaco Plant No. 1 well, the discovery well for the NIIP Pictured Cliffs field, was drilled in the SE/4 of Section 17, T-26-N, R-12-W, NMPM by Dugan Production Company on April 1, 1975. The pick for the top of the Pictured Cliffs sandstone is at approximately 1,132 which is also above the top of the Upper Pictured Cliffs sand.

(16) In its numerous cross section exhibits, Pendragon located its upper sets of perforations in the Subject Chaco Wells in that member of the Pictured Cliffs sandstone which it has identified in its cross sections and geologic literature exhibits as the Upper Pictured Cliffs sand.

(17) In its cross section C-C' Pendragon identified the "stratigraphic equivalent" as that term is used in Order No. R-8768 and reflected on the well log for the Amoco Schneider Gas Com "B" Well No. 1 as the first sandstone below the Fruitland Coal formation. Evidence also presented by Pendragon established that the term "stratigraphic equivalent" means "the same kind of rock material".

(18) The primary distinguishing characteristic of the Pictured Cliffs sandstone is its creation in a marine depositional environment. Conversely, the Fruitland Coal and the Fruitland Sandstone were deposited in a non-marine depositional environment.

(19) Pendragon's isopach of the Upper Pictured Cliffs sand shows the occurrence of that sandstone along the shoreline trending from a northwest to a southeast direction in a barrier bar marine littoral environment. Pendragon's exhibit also established that the Upper Pictured Cliffs sand occurs in a continuous sheet sand that coalesces into the main body or bench of the Pictured Cliffs formation as the sand trends from the shoreline environment on the southwest toward the center of the San Juan basin to the northeast.

(20) The core analysis for the Lansdale Federal No. 1 located in the SE/4 Sec. 7, T-26-N,R-12-W established the average permeability and porosity for the Upper Pictured Cliffs sand and that grain size and sorting throughout the Upper Pictured Cliffs sand are uniform, consistent with a marine depositional environment.

(21) The geologic evidence presented by Pendragon also established that the Fruitland sands are deposited along a trend from the Southwest to the Northeast on a channelized basis and that those sands thin towards the Northeast to the edge of the Pictured Cliffs sandstone body.

(22) Pendragon also established that its picks for the top of the Pictured Cliffs formation are consistent with those of other operators in the area and with a wide body of geologic literature accepted and relied on for decades by geologic experts, administrative agencies and industry.

(23) The evidence presented by Pendragon established that approximately 34 wells in the area were perforated in the Upper Pictured Cliffs sand in conjunction with other Pictured Cliffs intervals and reported as Pictured Cliffs completions, consistent with the picks for the top of the Pictured Cliffs for the Chaco Plant No. 1 and the Subject Chaco Wells. The evidence also established that those reported completions were accepted by the Division and the Bureau of Land Management and that industry and geologists have placed substantial reliance on those reported completions as Pictured Cliffs completions.

(24) Well logs from wells in the subject area indicate the existence of other coal stringers below the base of the Fruitland formation but they are not the "stratigraphic equivalent" to the coal stringers reflected on the well log for the Amoco Schneider Gas Com "B" Well No. 1.

(25) Whiting and Maralex contended that the log picks for the Pictured Cliffs-Fruitland contact is usually placed at the top of the massive of sandstone below the lower-most coal of the Fruitland formation . However, the Whiting expert geologist agreed that the term "massive" is somewhat arbitrary and its use for differentiating between the Fruitland formation and the Pictured Cliffs formation is not always practicable. In addition, the geologic literature for the area indicates that it is more common to place the contact between the Fruitland and Pictured Cliffs formations at the top of the highest ophiomorpha-major bearing sandstone. Consequently, the more widely accepted technical definition of a Pictured Cliffs sandstone is whether the formation is of

marine deposition, such as shoreline, wave-dominated, delta-front chenier, barrier bar and tidal channel-type environments.

(26) The geologic testimony and literature further established that Fruitland sands are consistently recognized as non-marine (continental) deposits such as fluvial channels, deltaic-distributary channels and other landward deposits. Additionally, the geologic literature indicates that the pick for the top of the Pictured Cliffs formation is often at the base of the basal Fruitland coal. The Fruitland formation is the non-marine facies tract consisting of inter bedded sandstone, mudstone, and coal beds deposited landward of the marine facies tract of the Pictured Cliffs sandstone.

(27) In the area of the Subject Lands, the Upper Pictured Cliffs sand appears as a classic shoreline or chenier-type sand grading from 0 to approximately 13 feet toward the northeast where it coalesces into the main body of the Pictured Cliffs where the thin underlying shale stringers are not present. The Upper Pictured Cliffs sands cannot otherwise be differentiated from the main body of the Pictured Cliffs formation.

(28) In the area of the Subject Lands, the core analysis from the Lansdale Federal No. 1 well, the physical descriptions of the sand appearing in the Upper Pictured Cliffs bench and the two lower benches are gray, fine grained with little variation in clay content, consistent with a marine sand that has been laterally transported to the point where the energy available sorts the sand into uniform size. Sand sorting characteristics of this sort are not consistant with a fluvial deposit with graded bedding and coarsening downward.

(29) The Upper Pictured Cliffs sand coalesces into thicker and undifferentiated Pictured Cliffs sands to the east, northeast and north, indicating they are part of the same depositional environment. The Upper Pictured Cliffs sand also correlates and is continuous in character over a large area covering portions of four townships.

(30) The Upper Pictured Cliffs sand is elongated along a northwest to southeast strike that on-laps and thickens to the northeast.

(31) There is no evidence establishing that the Pictured Cliffs sandstone in the area of the subject wells is associated with any stream channels or down-cutting as would be the case in a fluvial environment. Rather, the deposition of a sand with the consistency in geometry of the Pictured Cliffs sand requires a marine setting with a flat, stable base and a source of sand with consistant grain size spread by tidal or wave energy. Such conditions do not occur onshore and behind the shoreline.

(32) In Order No. R-8768, the Division defined the vertical limits of Basin Fruitland Coal Gas Pool as all coal seams within the equivalent of the stratigraphic interval from a depth of approximately 2450 feet to 2880 feet as shown on the well log from the Amoco Schneider Gas Com "B" well No. 1. The pick for the base of the pool is the top of the Pictured Cliffs. The pick is also the break between marine and non-marine sediments. It is undisputed that those coals or shale layers occurring below the

stratigraphic pick set forth in Order No. R-8768 would not be included in the Fruitland coal pool or in the Fruitland formation.

(33) By referring to the stratigraphic equivalent, as that term is used by geologists and the Division, it was the intent of Order No. R-8768 to define the vertical limits of the Basin-Fruitland Coal pool by the identification of rock and rock material of the same type rather than by time equivalence or lateral equivalence. For this reason, in addition to the reasons cited above, it is appropriate to conclude that the Subject Chaco wells are completed in and are producing from the Pictured Cliffs formation.

(34) A number of wells in the area of the Subject Lands produce from the top portion of the third Pictured Cliffs sandstone bench. Well logs indicate the existence of some tight streaks between the third bench and the main bench of the Pictured Cliffs sandstone but it is not clear that those intervals act as a barrier between the third and the main bench. The evidence, including the geologic literature, establishes that operators in the area have refrained from fracture completions in the lower bench of the Pictured Cliffs sandstones due to concerns of fracing into water. However, the existence of a natural water drive mechanism along with gas reservoir pressures in this zone establish that the lower bench of the Pictured Cliffs is a recharge source for both reservoir pressures and gas reserves in the main body of the Pictured Cliffs sandstone.

(35) Additional wellhead shut-in pressures taken subsequent to the June 28, 1998 court-ordered shut in of the Chaco No. 1, Chaco No. 4, Chaco No. 5 and Chaco No. 2-R reflect modest but normal shut-in pressure build up. Slight variations in the shut-in pressures may be attributable to competition from other Pictured Cliffs wells in the reservoir, or from periods of higher pressures throughout the reservoir due to El Paso Field Services shut-in periods, slight water build up in the well bores or measurement inaccuracies.

(36) The production and pressure data from the Whiting and Maralex Fruitland Coal wells for the same period of time, many of which have been placed on compressor, indicate no correlation with the shut-in pressures for the Subject Pictured Cliffs wells.

(37) The production history of the Subject Pictured Cliffs wells compared to the pressure data accumulated prior to the acid jobs and frac jobs on those wells establishes that the reservoir in the immediate vicinity of the well bores had experienced skin damage or other forms of reservoir damage. As a result, production from the Pictured Cliffs had significantly declined prior to the frac jobs and acidization jobs in 1995.

(38) Pendragon presented production history data for the Subject Coal wells as well as production data from six additional Fruitland Coal wells operated by Whiting and Maralex outside the area of the Subject Lands. The Maralex production data for the Subject Coal wells showed that after their initial completion, the wells were unable to produce sufficient volumes of gas to power pumps to unload water produced from the coal de-sorption process. However, by mid 1994, the Subject Coal wells had reached a

state of gas production incline as well as a stabilized rate of decline for water production, indicating that the wells were benefiting from the dewatering process. The production data also established the Subject Wells were behaving much like typical Fruitland Coal wells. The gas and water production decline curves for the coal wells show no inflections indicating any interference from the Subject pictured Cliffs wells.

(39) Production plots for the Whiting/Maralex Fruitland Coal wells outside of the area of the application showed similar production behavior of both gas and water production as the Subject Fruitland Coal wells. However, the same data established that the Maralex Coal wells within the area of the application produced significantly higher volumes of gas than did those wells outside the area of review. The production data establishes that the Subject Fruitland Coal wells are not experiencing interference from the Subject Pictured Cliffs wells.

(40) The production curves montage of the Whiting/Maralex coal gas wells demonstrated that the Subject Coal Gas Wells have been and are presently performing better than the Non-Subject Coal Gas Wells.

(41) The drops in production for the Subject and Non-Subject Coal Gas Wells in August, 1995 correspond to the frequent shut-ins of the El Paso Chaco plant and were preceded and followed by long periods of unusually high line pressure. The production drops during this time do not appear to be the result of any interference from other wells. The shut-ins during this period occurred while the coal wells were in the early stages of de-watering. After the coal gas wells were placed back on production following the shut-in, the wells required addition time to further de-water and the wells did not reestablish their earlier production levels for some time. During this same period, the Pictured Cliffs wells experienced no difficulties in reestablishing pre-shut-in production rates, a further indication that the Subject Chaco Wells were not producing from the coal.

(42) In 1977, initial reservoir pressures in the Pictured Cliffs were between 230 to 250 PSI. Pressure draw-down in the Pictured Cliffs was first indicated in late 1978 and became more apparent by 1983. All of the Subject Pictured Cliffs wells experienced generally the same rate of pressure decline regardless of the volumes of gas produced, suggesting reservoir pressure communication over a very large area. As the rate of decline continued, most of the Pictured Cliffs wells were in the 90 to 130 PSI range. In 1995 pressure readings taken in the Chaco 1J and 2J wells and before the Chaco 4 well was frac'd indicate that pressures had substantially increased from the initial pressure readings taken in 1983 and 1984 and range from between 140 PSI to 190 PSI, indicating the reservoir was only drawn down by 40 percent from the initial reservoir pressures in 1977. Additionally the pressure information indicates the Pictured Cliffs reservoir pressure was increasing prior to Pendragon's fracture stimulations. Moreover, by 1995, there were significantly fewer wells competing for reservoir pressure in the Pictured Cliffs formation, and providing a larger drainage area for a re-stimulated well.

(43) Although the Chaco 1J well was not frac'd, its recent bottom hole pressure of 159 PSI is unchanged from 1995. It is located 600 feet from one of the Subject coal

wells operated by Whiting and Maralex but there is no evidence of interference between the two wells. The Chaco 2J well is currently producing at a 178 PSI pressure, lower than the 198 PSI reported in 1995. Although the Chaco 2J was not frac'd it is located some 200 feet from the Whiting/Maralex Gallegos Federal 26-13-1 No. 1 which was treated with a 112,000 pound frac job.

(44) Casinghead pressures and production readings were taken from the Subject Coal Gas wells during the 1998 shut-in period for the Chaco wells. These readings give the instantaneous pressure and the cumulative production for the past 24 hours. Some of the following readings were taken on the morning after the day El Paso Field Services had declared less-than 24-hour shut-in period for the Chaco Plant. Whiting/Maralex wells were not manually shut-in during this period, but were allowed to produce as they could against the high line pressure resulting from the plant shut-in. The Gallegos Federal No. 1-2 showed a capability of producing between 126 and 154 MCFPD at flowing casing pressures within 6 PSI of the Chaco No. 4 15-day shut-in pressure of 91 PSI. The Gallegos Federal No. 1-1 had produced 240 MCFD with a flowing casing pressure 3 PSI higher than the shut-in pressure of the Chaco No. 4. The Gallegos Federal No. 6-2 produced 432 MCFD with an 82 PSI FCP. The Gallegos Federal No. 12-1 produced 298 MCFD at 91 PSI FCP which was identical to the shut-in pressure of the Chaco No. 4. The Gallegos Federal No. 7-1 produced 308 MCFD with a FCP of 74 PSI. The closest Pictured Cliffs well, the Chaco 2R, 800 feet away had a two-week shut-in pressure of 69 PSI. This evidence establishes that the Subject Pictured Cliffs wells do not appear to be in communication with the same reservoir in which the Subject Coal wells are completed.

(45) Well log and production data from three wells completed in the Pictured Cliffs sandstone in Section 11 reflect increasing porosity and decreasing conductivity in the third bench of the PC which indicates increasing gas saturation and decreasing water saturation. Significantly, the well in the SW/4 SW/4 of Section 11 produced exclusively from the third bench, making more than 93 MMCF. The High-Roll No. 4 produced from all three Pictured Cliffs sands and has made over .5 BCF. Following the recent installation of a compressor, the High-Roll No. 4 experienced more than a twelve-fold increase in production. The well log and production data from these wells support the conclusion that a considerable volume of movable gas exists below the perforations in the Subject Pictured Cliffs wells in tighter rock with lower gas saturations but which will produce commercial quantities with acceptable volumes of water due to the relative permeability's among the zones.

(46) Pressure data for the Chaco 4 and 5 wells reflects that in 1995 those wells were producing at less than 1 percent of their producing rates in 1979 and pressures were equivalent to reservoir pressures in 1979. Such evidence indicates the existence of reservoir damage or skin damage.

(47) Whiting and Maralex presented BTU content gas analysis data to support their position that the decrease in BTU content from the Chaco wells over time is evidence of communication with the Fruitland Coal formation. The gas analysis data

presented by Pendragon established no correlation between the BTU content in gas production and the acidization and fracture stimulation treatments on the Subject Pictured Cliffs wells. The variations in BTU content could be attributable to a number of factors, including variations in reservoir pressure draw-down rates and production over time affecting the production of various gas liquids.

(48) The Applicant presented Phase change graphs demonstrating the phased transition from gas to liquids in a low permeability reservoir showing significant variations for methane, ethane, propane, butane, and pentane. The production of these liquids and the resultant effect on gas BTU content was shown to be affected by a number of factors, including reservoir pressure and rates of production. As a result of these variable, dynamic forces, the various components move through the reservoir at different velocities, affecting the BTU content of the produced gas. As reservoir conditions are historically variable rather than static, the BTU content of the gas is continually affected. Consequently BTU data over time are not meaningful and do not provide a reliable means for determining the source of gas production.

The Applicant presented expert petroleum engineering testimony in the area of fracture technology which established that:

(49) Pressure and injection rate data derived from formation fracture treatments can be used to determine the vertical height growth and horizontal extension of fractures within the formation.

(50) Lithologic analysis from logs may be used to design fracture stimulation treatments that remain contained within the target zone or formation. Moreover, changes in lithology and facies changes will predictably act as a barrier to fracture growth out of zone. In the Subject Pictured Cliffs wells, the well logs reflect a strong lithology change at the top of the Pictured Cliffs formation, assuring that the fractures remain contained.

(51) The evidence presented by the parties established that the foam fracs used on the Subject Pictured Cliffs wells consisted of fluid volumes averaging 31,248 gallons at proppant weights averaging 38,421 pounds injected at treating rates ranging from between 22 to 34 BPM.

(52) The evidence further established that the fracture completions performed by Maralex on the Subject Coal wells consisted of fracture fluid volumes on the average of 41,030 gallons at proppant weights averaging 72,656 pounds, injected at treating rates ranging between 45 to 60 BPM. In addition, the specific fracture completions for the Gallegos Federal 26-12-6 No. 2 well consisted of a fracture fluid volume of 81,025 gallons with a 121,700 proppant weight injected at treating rates between 45 to 60 BPM. The fracture completion for the Gallegos Federal 26-12-7 No. 1 consisted of a fracture fluid volume of 85,223 gallons with a proppant weight of 119,200 pounds injected at treating rates of 45 to 60 BPM. Consequently, the Maralex fracture completions were accomplished at significantly higher rates and higher volumes with fracture fluids of

greater viscosity. By comparison, the Pendragon fracture treatments were accomplished at relatively low rates and low volumes.

(53) The evidence established that data derived from Nolte Plots are an effective and reliable means for determining vertical height growth and extension of formation fractures.

(54) The Nolte Plots for the Subject Pictured Cliffs wells showed a slight incline in pressure over the time of the treatment, indicating restricted height growth and lateral extensions of the fractures.

(55) The data derived from Nolte Plots for the Maralex fracture completions on the Subject Coal wells show negative slopes, indicating unrestricted, vertical growth and in one case, "run-away" vertical fractures.

(56) The evidence further established that coal is an effective barrier to fracture growth because it is more elastic than the surrounding sandstones. The cleat systems within the coal body also allow for the pressure at the fracture tip to become diffuse, negating the ability of the tip and fluids to fracture into the coal itself.

(57) The evidence established that the fracture treatments for the Subject Pictured Cliffs wells were designed specifically to utilize the thin coal and shale stringers as effective barriers to maintain containment of the fracture. The effective use of shale and coal sequences as fracture containment barriers was adequately demonstrated by the fracture profiles made available from the Eureka 33-32 well and the Don 44-7 well in the Raton Basin. The use of shale barriers as a reliable means to contain fracture growth was also demonstrated by the fracture profile on the Dome Federal 17 well completed in the WAW Pictured Cliffs formation in Section 17, T-27-N, R-13-W. Moreover, the fracture containment in the Pictured Cliffs sandstone in the Dome Federal 17 well was verified by a tracer survey.

(58) While Nolte Plots are regarded in the industry as a reliable means of determining fracture containment, the testimony and professional engineering literature evidence established that the use of fracture simulators such as "Frac-Pro" regularly exaggerate the height of actual fracture growth, thus making them a less reliable means for determining whether fractures remained contained within zone.

(59) The evidence and data presented were sufficient to support the conclusion that the fracture treatment jobs on the Pendragon Pictured Cliffs wells did not escape out of zone and remained contained within the Pictured Cliffs formation. The evidence available on the date of the hearing was insufficient to allow for a determination whether the significantly heavier fracture treatments on the Whiting/Maralex coal wells actually penetrated into the Pictured Cliffs formation. However, the evidence supports the conclusion that it is more likely than not that the Maralex frac jobs escaped out of the basal coal.

(60) The Applicants presented testimony through their contract pumper/operator that the locations of the perforations in the Subject Pictured Cliffs wells were accurately reported in the Upper Pictured Cliffs sand and that there are no perforations in the coal.

(61) The pumper/operator also testified that the Chaco wells were not producing significant volumes of water following the fracture treatments and what water was being produced is typical of the hundreds of other Pictured Cliffs wells with which the witness has had experience operating. The pumper/operator witness further testified that Fruitland Coal wells that have completed the de-watering process typically produce from between 20 to 30 barrels of water per day on pump while the Subject Pictured Cliffs wells have produced without pumps. The witness further testified that the installation of the equipment necessary to measure the small volumes of water being produced from the Subject Pictured Cliffs wells could not be economically justified. The witness further established that it was not possible to compare produced water rates before and after the fracture treatments on the Subject Pictured Cliffs wells for the reason that they had previously been equipped with one inch tubing, making it difficult to produce any liquids at all.

The Applicants presented reservoir engineering testimony establishing that:

(62) Pressure versus time data for the Subject Pictured Cliffs wells and Fruitland Coal wells established that the pressures in the Chaco wells have been historically stable and that there is no evidence of any equalization with pressures in the Fruitland Coal wells. In addition, pressures measured on the Chaco 2J which had not been frac'd showed no evidence of any pressure changes attributable to fracture completions on the nearby Fruitland Coal wells.

(63) The pressure data for both formations established that the Pictured Cliffs wells had lower pressure than the Fruitland Coal formation in early 1995, both prior to and after the stimulation treatments.

(64) The pressure data also established that the Pictured Cliffs formation has experienced some recharge and that the probable source of the recharge is the lower Pictured Cliffs sandstone, possibly supported in-part by a natural water drive mechanism.

(65) Log analyses on the Subject Pictured Cliffs wells established porosities in the perforated zones, generally, at 24.30 percent, with a 40.53 percent water saturation and a 11.31 percent clay content. In the lower zone of the Pictured Cliffs, porosities were determined to be, 20.15 percent, with water saturation approximately 78.37 percent with 18.80 percent clay content. These analyses indicate good porosity development with relatively low water saturation and clay content in the perforated zones, while the lower zones have good porosity but higher water saturation and clay content. However, the lower zones also have mobil gas saturations, acting as the possible re-charge source for the higher zone.

(66) Volumetric reserve estimates based on the log analyses establish that there are sufficient gas resources available in the Pictured Cliffs formation to correspond with the production experienced in the Subject Chaco wells.

(67) The Applicants presented historic gas production data and decline curve analyses for the Subject Pictured Cliffs wells that further substantiate the existence of sufficient in-place gas reserves to correspond with the performance of the Chaco wells. The Pictured Cliffs wells' cumulative production and estimated ultimate gas recoveries are supported by the volumetric analysis and establish the larger drainage area for the wells.

(68) The Applicants also presented material balance analyses establishing that Pictured Cliffs reserves reasonably equate to those reserves determined from the volumetric analysis.

(69) The gas content and pressure data derived from information provided by Whiting and Maralex established a basis for determining Fruitland Coal gas reserves from the Subject Coal wells. Pendragon's reserve estimates for the Fruitland Coal reservoir, based on volumetric calculations, yields reserves consistent with the cumulative production data provided by Whiting and Maralex. The evidence also established that the Subject Coal wells have produced substantially more gas than the other coal gas wells, indicating no loss of reserves from the Subject Coal Gas wells.

(70) The material balance analyses indicate that the Subject Fruitland Coal wells are draining a very large area and do not indicate any loss of reserves to the Subject Pictured Cliffs wells.

(71) The Applicants presented evidence comparing the production performance of the Subject Fruitland Coal wells with six other Whiting/Maralex Fruitland Coal wells in the general area but outside the lands described in the application. Such evidence established that the Subject Coal wells are producing at rates far exceeding the performance of the six non-Subject Fruitland Coal wells operated by Maralex, as well as the normalized production from all other Fruitland Coal wells in the area.

(72) Evidence of comparative water production from the Fruitland Coal wells and the Subject Pictured Cliffs wells presented by the Applicants established that the water production rates for the Fruitland Coal wells is typical. Moreover, the production of only minimal volumes of water by the Subject Pictured Cliffs wells indicated the absence of any communication between the Fruitland Coal formation and the Subject pictured Cliffs wells.

(73) The reservoir engineering evidence presented by Applicants establishes there is no physical evidence that the Subject Pictured Cliffs wells communicated with the Fruitland Coal formation following the fracture and acid stimulation treatments on the Chaco wells in 1995. It is established that the Subject Fruitland Coal wells have

experienced no interference from the production or operation of the Subject Pictured Cliffs wells.

(74) The reservoir engineering evidence presented by the Applicants establishes that the Pendragon Pictured Cliffs wells are producing from their own common source of supply and, further, that Fruitland Coal Bed methane reserves are not being produced from the Subject Pictured Cliffs wells.

(75) The Applicants' reservoir engineering testimony established that there is a substantial likelihood that the Chaco No. 1, Chaco No. 4, Chaco No. 5 and Chaco No.2-R wells, which were ordered shut-in at the request of Whiting and Maralex, will incur damage from water imbibing back into the surrounding reservoir as a result of the shut-in.

The Division, after consideration of the geologic and engineering evidence in testimony presented by all parties in this case, FINDS;

(76) The Basin-Fruitland Coal Gas Pool and the WAW Fruitland-Pictured Cliffs Pool have previously been declared to be separate common sources of supply by orders No. R-8768, as amended, and R-8769, as amended, respectively and are a separate common source of supply within the meaning of Section 70-2-33 of the Oil and Gas Act.

(77) The Subject Chaco wells are completed and perforated in and are producing from the Pictured Cliffs formation sandstone within the vertical limits of the WAW Fruitland-Pictured Cliffs Pool.

(78) The Subject Coal Gas wells operated by Maralex Resources, Inc. were drilled to and completed in the basal coal body of the Fruitland formation contained within the vertical limits of the Basin-Fruitland Coal Gas Pool.

(79) Consistent with the finding in paragraph 76, above, as the Subject Pictured Cliffs wells and Subject Coal Gas wells are completed in separate common sources of supply, the production from and the operations in one pool do not result in the impairment of correlative rights in the other. The upper sets of perforations found in each of the Subject Pictured Cliffs wells are located in and are producing gas from the Upper Pictured Cliffs bench of the Pictured Cliffs formation rather than from a Fruitland sandstone.

(80) That sandstone interval identified by the geologic exhibits and geologic literature as the Upper Pictured Cliffs sandstone is recognized to be a part of the marine Pictured Cliffs sandstone formation.

(81) The acidization and fracture stimulation treatments performed on the Applicants Subject Pictured Cliffs wells did not cause the Pictured Cliffs formation to become communicated or result in any interference with production from the Fruitland Coal formation.

(82) Applicants have the right to apply such stimulation treatments and operating procedures on the Subject Pictured Cliffs wells as they may determine are reasonable, prudent and necessary.

(83) The fracture stimulation treatments performed in 1995 on the Subject Chaco No. 1, Chaco No. 4, Chaco No. 5 and Chaco No. 2R as well as the acidization jobs Chaco No. 4, Chaco No. 1J and Chaco No. 2J resulted in the increased production of gas from the Pictured Cliffs formation. The fracture treatment and acidization jobs were reasonable, prudent and necessary to recover additional Pictured Cliffs gas reserves that otherwise would have remained unrecovered.

(84) Whiting and Maralex failed to demonstrate that the fracture treatments performed on the Subject Coal wells in 1993 remained contained within the basal coal of the Fruitland formation. Rather, the evidence established that it is more likely than not that the Maralex frac jobs escaped out of the basal coal. However, evidence available on the date of the hearing was insufficient to allow for a determination whether the heavier fracture treatments on the Whiting/Maralex Coal wells penetrated into the Pictured Cliffs formation.

(85) None of the perforations in the Subject Chaco wells were located in the Fruitland formation or any coal interval therein.

4. Whiting Petroleum Corporation should also be required to submit data and take such additional measures as required by the Division to assure the segregation of production from separate sources of supply in conformance with Rule 19 NMAC 15.E. 303.A of the Division's Rules.

5. Whiting Petroleum Corporation as operator of the Subject Fruitland Coal Gas wells, should also be required to submit such data to demonstrate to the satisfaction of the Division that the continued operation of and production from its wells do not result in the interference with production from the Subject Pictured Cliffs wells.

6. Jurisdiction of this cause is retained for the entry of such further Orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinafter designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

IT IS THEREFORE ORDERED THAT:

1. The Division determines that each of the Applicants' six Subject Chaco wells are completed in and producing from the appropriate common source of supply, the Pictured Cliffs formation.

2. The Applicants shall be allowed to continue to produce through all of the perforated intervals in the Subject Pictured Cliffs wells.

3. Whiting Petroleum Corporation as operator of the Subject Fruitland Coal Gas wells should be required to submit additional data and otherwise show proof to the satisfaction of the Division that the Subject Coal Gas wells will be and are currently producing from the appropriate common source of supply pursuant to Rule 3 of the Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool.

4. Whiting Petroleum Corporation should also be required to submit data and take such additional measures as required by the Division to assure the segregation of production from separate sources of supply in conformance with Rule 19 NMAC 15.E. 303.A of the Division's Rules.

5. Whiting Petroleum Corporation as operator of the Subject Fruitland Coal Gas wells, should also be required to submit such data to demonstrate to the satisfaction of the Division that the continued operation of and production from its wells do not result in the interference with production from the Subject Pictured Cliffs wells.

6. Jurisdiction of this cause is retained for the entry of such further Orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinafter designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

_____
Lori Wrotenbery, Director

NEW MEXICO ENERGY, MINERALS
& NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION
2040 South Pacheco Street
Santa Fe, New Mexico 87505
(505) 827-7131

~~March 25,~~ 1999

Delivered via fax

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Post Office Box 1986
Santa Fe, New Mexico 87504-1986

Michael J. Condon
Gallegos Law Firm
460 St. Michael's Drive
Building 300
Santa Fe, New Mexico 87505

Re: Application of Pendragon Energy Partners, Inc., Pendragon Resources, L.P., and J.K. Edwards Associates, Inc. to confirm production from the appropriate common source of supply, San Juan County, New Mexico
No. 11996 *de novo*

Gentlemen:

On March 1, 1999, Pendragon Energy Partners, Inc., Pendragon Resources, L.P. and Edwards Energy Corporation ("Pendragon") filed a Motion for Partial Stay of Order R-11133. Whiting Petroleum Corporation and Maralex Resources, Inc. ("Whiting") filed a Response in Opposition to Motion for Partial Stay of Order R-11133 on March 16, 1999. On March 3, 1999, Whiting filed a Motion for Stay of Proceedings and to Quash Subpoenas Duces Tecum to which Pendragon filed its response on March 12, 1999. I have considered the arguments made on the issues involved.

Pendragon's Motion for Partial Stay of Order R-11133 and Whiting's Motion for Stay of Proceeding are hereby denied.

A decision on Whiting's Motion to Quash Subpoenas Duces Tecum will be deferred until after the prehearing conference set for March 30, 1999 at 2:00 p.m. The matters to be discussed at the conference will include the following: a discovery schedule including the subpoena issues already raised by the parties; witness and exhibit lists; the use of prefiled testimony; stipulations as to facts; and length and schedule for the Oil Conservation Commission hearing. Lyn Hebert, attorney for the Commission, will conduct the conference. The conference will be tape-recorded.

Best regards,

Lori Wrotenbery
Director

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

CASE NO. 11996
DE NOVO

APPLICATION OF PENDRAGON ENERGY PARTNERS, INC., PENDRAGON RESOURCES, L.P., AND J. K. EDWARDS ASSOCIATES, INC. TO CONFIRM PRODUCTION FROM THE APPROPRIATE COMMON SOURCE OF SUPPLY, SAN JUAN COUNTY, NEW MEXICO.

SCHEDULING ORDER

The parties to this *de novo* case pending before the Oil Conservation Commission ("Commission") are: Pendragon Energy Partners, Inc., Pendragon Resources, L.P., and J.K. Edwards Associates, Inc. ("Pendragon"); and Whiting Petroleum Corporation and Maralex Resources, Inc. ("Whiting"). Pendragon is represented by J. Scott Hall; Whiting is represented by J.E. Gallegos and Michael Condon.

The parties' attorneys met with the Commission attorney, Marilyn S. Hebert, on March 30, 1999, to discuss the following: a schedule for discovery including the subpoena issues raised by the parties; witness and exhibit lists; the use of prefiled prepared written testimony; stipulation as to facts; and the length and schedule for the *de novo* hearing.

The following is the schedule for discovery and filing dates in advance of the *de novo* hearing:

Discovery

Documents: Each party was to have provided the documents requested by the other party by **April 30, 1999.**

[illegible]

The parties must file with the Division prepared written testimony including exhibits of their expert witnesses by **July 23, 1999**. The expert witness must be present at the *de novo* hearing to adopt, under oath, his prepared written testimony, subject to cross-examination and motions to strike. The pages of the prepared written testimony must be numbered and must contain line numbers on the left-hand side of the page. The parties must file with the Division four copies of each witness's testimony.

By **July 23, 1999**, the parties must file a list of those exhibits they intend to

Witness lists: The parties must file with the Oil Conservation Division ("Division") a list of the witnesses they intend to call to testify at the *de novo* hearing by **June 4, 1999**. The parties must indicate on the witness list those witnesses who will be called as expert witnesses.

All discovery must be completed by **July 16, 1999.**

Prepared Written Testimony and Exhibit List

The parties must file with the Division prepared written testimony including exhibits of their expert witnesses by **July 23, 1999**. The expert witness must be present at the *de novo* hearing to adopt, under oath, his prepared written testimony, subject to cross-examination and motions to strike. The pages of the prepared written testimony must be numbered and must contain line numbers on the left-hand side of the page. The parties must file with the Division four copies of each witness's testimony.

By **July 23, 1999**, the parties must file a list of those exhibits they intend to introduce at the *de novo* hearing that are not part of the prepared written testimony.

on direct

Stipulation of Facts

The stipulation as to facts shall be filed with the Division by **July 23, 1999.**

Hearing Dates

The parties have indicated that the *de novo* hearing will require four or more days. The dates for the *de novo* hearing are **August 12, 13, 19 and 20, 1999**.

Done this 11th day of May, 1999.

Lori Wrotenbery
Director

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

CASE NO. 11996
DE NOVO

APPLICATION OF PENDRAGON ENERGY PARTNERS, INC., PENDRAGON RESOURCES, L.P., AND J. K. EDWARDS ASSOCIATES, INC. TO CONFIRM PRODUCTION FROM THE APPROPRIATE COMMON SOURCE OF SUPPLY, SAN JUAN COUNTY, NEW MEXICO.

ORDER ALLOWING RESERVOIR PRESSURE TESTING

This matter came before the Commission on April 22, 1999, on Pendragon Energy Partners, Inc., Pendragon Resources, L.P., and Edwards Energy Corporation's ("Pendragon") Motion to Conduct Reservoir Pressure Tests. Maralex Resources, Inc. and Whiting Petroleum Corporation ("Whiting") filed a response to the motion, and on May 19, 1999, Pendragon filed its reply. The pleadings have been reviewed and considered.

The proposed testing may yield information relevant to the issues in this case. Therefore, Pendragon's motion is hereby granted, and Pendragon may conduct the testing as proposed in its motion provided Pendragon meets the following conditions:

1. Pendragon must obtain permission of the District Court to restore to production the Chaco No. 4 well, which well was ordered shut in by the Court in *Whiting Petroleum Corporation et al. v. Pendragon Energy Partners, Inc., et al.,* First Judicial District, No. D-0101-CV-98-01295.

2. Pendragon must satisfy any financial security the District Court may order for the lost production from Whiting's three wells as well as the ten-day production of the Chaco No. 4 Well.
3. Pendragon must notify Whiting and the New Mexico Oil Conservation Division's Aztec District Office of the dates for the testing so that Whiting and the Aztec District Office can be present for the testing.

Done this 19th day of May, 1999.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

Lori Wrotenbery

LORI WROTENBERY

GALLEGOS LAW FIRM
A Professional Corporation

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MICHAEL J. CONDON

March 24, 1999
(Our File No. 98-266.00)

VIA HAND-DELIVERY
Lori Wrotenbery, Director
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87505

VIA HAND-DELIVERY
Jami Bailey, Director
State Land Office
New Mexico Oil and Gas Division
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VIA U.S. MAIL
Dr. Robert Lee
New Mexico Institute of Mining Technology
Petroleum Recovery Research Center
801 Leroy Place
Socorro, New Mexico 87801-4796

99 MAR 24 AM 11:17
OIL CONSERVATION DIV.

Re: NMOCC Case No. 11996; Order No. R-11133 (De Novo)

Dear Ms. Wrotenbery, Ms. Bailey and Dr. Lee:

I am in receipt of a copy of a letter dated March 18, 1999 from Scott Hall to Dr. Lee. Please be advised that we represent Whiting Petroleum Corp. and Maralex Resources, Inc. in this matter. Mr. Hall's letter indicates that he has been providing you with copies of some of the pleadings that have been filed. There are additional pleadings that we have filed on behalf of Whiting and Maralex which I do not believe Mr. Hall has provided to you. Specifically, we recently filed a Response in Opposition to Pendragon's Motion for Partial Stay of Order R-11133.

It is my understanding that Florene Davidson will put together a notebook for each of you of all of the pleadings that have been filed in the case prior to any motions or evidentiary hearings. Therefore, I have not been providing you with separate and additional copies of the pleadings as we have filed them. I assumed that this would simply add to your paper workload. However, if you wish for me to provide you with separate copies of any pleadings I have filed, please let me know. Unless I hear from

you to the contrary, I will rely on the competence of Ms. Davidson to provide each of you with copies of any pleadings you need in this matter.

Very truly yours,

GALLEGOS LAW FIRM, P.C.

By
MICHAEL J. CONDON

MJC:sa
cc: Marilyn S. Hebert
Mickey O'Hare
John Hazlett
Scott Hall
ioc: J.E. Gallegos

MILLER, STRATVERT & TORGERSON, P. A.

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PLEASE REPLY TO SANTA FE

March 18, 1999

Dr. Robert Lee
New Mexico Institute of Mining Technology
Petroleum Recovery Research Center
801 Leroy Place
Socorro, New Mexico 87801-4796

Re: NMOCC Case No. 11996; Application of Pendragon Energy Partners, Inc., et al. To Confirm Production From The Appropriate Common Source of Supply, San Juan County, New Mexico; Order No. R-11133 (De Novo)

Dear Dr. Lee:

First, congratulations on your recent appointment to the New Mexico Oil Conservation Commission. I look forward to working with you on this and other cases that may be brought before the Commission.

Since this de novo proceeding was initiated, I have been providing Ms. Wrotenbery and Ms. Bailey with individual copies of the pleadings we have filed with the Commission on behalf of our client, Pendragon Energy Partners, Pendragon Resources, L.P. and J.K. Edwards Associates, Inc. Accordingly, I am providing you with copies of the following:

- Pendragon's Motion For Partial Stay Of Order R-11133

- Whiting's Motion For Stay Of Proceedings And To Quash Subpoenas Duces Tecum

- Pendragon's Response To Motion For Stay Of Proceedings

And To Quash Subpoenas Duces Tecum.

We will make sure you are provided with any additional materials as they are filed.

Thank you.

Very truly yours,

MILLER, STRATVERT & TORGERSON, P.A.

J. Scott Hall

JSH/rab
Enclosures

cc: Lori Wrotenbery (w/out encl.)
Marilyn Hebert (w/out encl.)
Michael Condon (w/out encl.)
Al Nicol (w/out encl.)
Keith Edwards (w/out encl.)

STATE OF NEW MEXICO
ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION

APPLICATION OF PENDRAGON ENERGY PARTNERS, INC., PENDRAGON RESOURCES, L.P., AND J.K EDWARDS ASSOCIATES, INC. TO CONFIRM PRODUCTION FROM THE APPROPRIATE COMMON SOURCE OF SUPPLY, SAN JUAN COUNTY, NEW MEXICO

OCD CASE NO. 11996

WHITING'S RESPONSE IN OPPOSITION TO MOTION FOR PARTIAL STAY OF ORDER R-11133

Whiting Petroleum Corporation and Maralex Resources, Inc. (collectively "Whiting"), hereby submit their Response in Opposition to the Motion for Partial Stay of Order R-11133 filed in this proceeding by the applicants (collectively "Pendragon"). Having lost before the NMOCD and faced with insurmountable evidence that fracture stimulations can cause communication between the coal gas reserves in the Fruitland Formation and the Pictured Cliffs Formation, Pendragon has abandoned its original position and now seeks affirmative relief from this Commission which it never sought before the Division.

Pendragon's Motion, which is unsupported by admissible facts or sound engineering principles, should be denied on several grounds. First, the Commission should grant Whiting's Motion for Stay of Proceedings and hold Pendragon's Motion in abeyance. Second, Pendragon's Motion should be denied as inconsistent with the relief sought in the Application which is the subject of Pendragon's pending de novo appeal. The Commission has no jurisdiction to grant the requested relief.

Third, to the extent Pendragon's Motion seeks an Order from the Commission shutting in the Whiting coal seam gas wells, it should be denied as unsupported by any credible evidence, much less any substantial evidence. Finally, Pendragon's Motion should be denied as moot to the extent that it seeks a stay of ¶¶ 54 and 55 of Division Order R-11133. Those provisions do not constitute an improper delegation of administrative authority.

I.

FACTS SUPPORTING DENIAL OF PENDRAGON'S MOTION

On May 26, 1998, Pendragon filed its Application with the NMOCD seeking an Order confirming that Whiting's coal seam gas wells and Pendragon's Chaco wells "are producing from the appropriate common source of supply." Pendragon's theory at the outset of these proceedings was that fracture stimulations could not produce communication between the Pictured Cliffs formation and the coal seam gas reserves of the Fruitland Formation. Pendragon prosecuted its Application at the exhaustive three (3) day hearing before the NMOCD on July 28-30, 1998. At the conclusion of that hearing, Pendragon submitted a proposed Order which confirmed Pendragon's initial theory. A partial copy of Pendragon's proposed Order is attached as Exhibit A.

Consistent with its initial Application, Pendragon put on no affirmative evidence at the NMOCD proceeding to establish that any fracture stimulation performed on the Gallegos Federal wells operated by Whiting resulted in any fracturing of the Pictured Cliffs Formation. Similarly, Pendragon presented no proposed resolution in the form of an allocation of past and future gas production from its Chaco wells in the event

the NMOCD determined that communication between the two formations had been established within Pendragon's Chaco wells. Such a presentation would have contradicted Pendragon's position at the hearing. Pendragon did not request that the NMOCD shut-in any of Whiting's wells.

A hotly contested issue at the NMOCD hearing was the issue of the status of the Pictured Cliffs formation as of 1995. Whiting presented substantial and convincing evidence, based upon geologic, production and engineering data, that the Pictured Cliffs formation was depleted in 1995. Whiting established that the incredible increase in production Pendragon realized after its fracture stimulation proceedings in 1995 could only have resulted from communication with the coal gas in the Fruitland Formation, and that the production was not the result of production of Pictured Cliffs gas. Whiting's position was substantiated by production data, BTU/gas analysis data,[1] water production from the Chaco wells,[2] and pressure data which demonstrated that the pressures in the Chaco wells approximated coal seam gas well pressures after 1995. The evidence showed that both the Whiting coal seam gas wells and the Pendragon Chaco wells (after 1995) acted like prototypical coal seam gas wells.[3]

Pendragon, on the other hand, denied communication, and presented a theory, unsupported by any substantial evidence, that the increased production from the Pictured Cliffs wells after 1995 was the result of communication with a third bench of the

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[1] That data shows that the gas content of gas produced from the Pictured Cliffs wells changed after 1995 and began to approximate the BTU content and gas analysis one would expect from coal seam gas.

[2] Pendragon failed to properly report water production to the NMOCD.

[3] The Pendragon wells began producing water in 1995, but Pendragon failed to report the water production in violation of NMOCD rules and regulations.

Pictured Cliffs Formation which had been previously untapped. Pendragon itself did not perf its wells in this alleged third bench area in any of its Chaco wells.

Predictably, the NMOCD found in favor of Whiting and against Pendragon on these issues. The Division's extensive findings, all of which support Whiting's allegation that the Pendragon fracture stimulations on its Chaco wells caused communication with the coal seam gas reserves in 1995, are embodied in ¶¶ 30(a) through (m), 31-35, 39-40, and 45-51.

Pendragon has now apparently "seen the light." Undeterred by any intellectual need for consistency in its positions, Pendragon now seeks an Order shutting in Whiting's coal seam gas wells because of alleged "ongoing drainage of gas from the Pictured Cliffs formation by two or more of the referenced Fruitland coal wells." Motion, p. 2. Pendragon does not explain how the coal wells can drain gas from a formation that was substantially depleted in 1995, then produced by Pendragon in volumes that exceeded original gas in place estimates and at full throttle from 1995 until July, 1998!

ARGUMENT AND AUTHORITIES

1. The Commission Should Hold Pendragon's Motion in Abeyance

On March 3, 1999, Whiting filed its Motion for Stay of Proceedings and to Quash Subpoenas Duces Tecum. The parties have already prepared for two evidentiary hearings regarding their dispute: one before the district court which resulted in the entry of the Court's Preliminary Injunction shutting in Pendragon's Chaco wells on July 7, 1998, and the exhaustive three (3) day hearing before the NMOCD on July 28-30, 1998. If the Commission were to hear Pendragon's de novo appeal, whatever the

theory Pendragon ultimately prosecutes, that would require the parties to prepare for and present a third evidentiary hearing. Regardless of the administrative outcome, the parties will ultimately proceed to trial before a jury in the district court proceeding, necessitating a fourth evidentiary hearing. The Commission can "stop the madness" by granting Whiting's Motion, staying this administrative proceeding, and await the results of the jury trial in the district court proceeding. This would further judicial and administrative economy, and minimize any additional burden and expense on the parties in this dispute.

2. The Commission Lacks Jurisdiction to Award Pendragon's Requested Relief

Pendragon's application for de novo appeal seeks review of NMOCD's decision as reflected in Order R-11133. Pendragon's position before the NMOCD is diametrically opposed to Pendragon's current theory as set forth in this Motion. Pendragon never sought the relief requested in its Motion from the NMOCD.

The statutory scheme embodied in the Oil and Gas Act contemplates that a party proceed first before the Division, giving the Division the first opportunity to consider requested relief. The Commission is not an administrative body of primary jurisdiction in this type of dispute. The issues framed by Pendragon's Motion have never been presented by Pendragon for hearing before the NMOCD. Pendragon never gave the NMOCD an opportunity to consider its latest theory, and should not be allowed to present this latest theory for the first time before the Commission. The Commission should require Pendragon to refile its Application with the NMOCD, set forth all issues it now intends to prosecute, and present any evidence to the NMOCD, subject to cross-examination which will highlight the inconsistency in Pendragon's position.

3. Pendragon has Presented No Credible Evidence of Drainage of the Pictured Cliffs Formation

The NMOCD findings on the depleted status of the Pictured Cliffs formation as of 1995 remain unchallenged by Pendragon. The evidence before the NMOCD confirms that Pendragon produced substantial quantities and volumes of coal seam gas from its Chaco wells from 1995 until those wells were shut-in in July, 1998. The unchallenged findings of the NMOCD established that Pendragon had violated the correlative rights of Whiting by the restimulation procedures and production of Whiting's gas from its Chaco wells from 1995 to 1998.

That there is communication between the Fruitland formation and the Pictured Cliffs formation is now apparently not in dispute, if we can take Pendragon's most recent Motion at face value. Pendragon, however, has attempted to turn the evidence and the division's findings on their head, contending that Pendragon's correlative rights have been violated, and that there is a risk that Whiting is producing Pictured Cliffs gas out of its coal seam gas wells. Pendragon does not cite to any engineering testimony to support its Motion, but relies solely on argument of counsel, which is improper.

Pendragon's Motion ignores evidence presented at the NMOCD proceeding, and attempts to mischaracterize the Division's Order as containing allegedly inconsistent findings. The evidence presented at the NMOCD hearing established that Whiting performed its fracture stimulation procedures on its coal seam gas wells in 1992-93. Had communication between the two formations been established as a result of Whiting's fracture stimulations, one would have expected to see an impact on production from the Chaco wells at that time, but certainly prior to the

fracture stimulation work performed by Pendragon in 1995. This did not occur. The Pendragon Chaco wells experienced no production increase, and no water production increase, and no pressure increase following the Whiting fracture stimulations. It was not until Pendragon performed its fracture stimulations in 1995 that the wells began to produce significantly increased volumes of gas and water under increased pressure, as one would expect from a coal seam gas well.

Pendragon complains that the findings in ¶¶ 45 and 47 of Order R-11133 demonstrate ambivalence on the part of the NMOCD which needs to be remedied by the Commission prior to any hearing on the de novo appeal. This is absurd. Pendragon wants the Commission to save it from its own failure to introduce evidence in the hearing before the NMOCD because Pendragon has belatedly discovered the theory of communication. Paragraph 45 finds, based on substantial evidence, that the fracture stimulations performed on the Chaco wells caused communication with the Fruitland coal formation. Paragraph 47 concludes that while it is possible that the fracture stimulations performed on the coal wells resulted in fracturing of the Pictured Cliffs Formation, there was not sufficient evidence to establish such a finding. While Whiting believes that there was, in fact, sufficient evidence to establish the lack of communication as a result of Whiting's stimulations of its coal gas wells, Pendragon is not entitled to extraordinary relief from the Commission based on its own failure to introduce before the NMOCD.

Pendragon also relies on post-hearing data as somehow supporting its right to an order shutting-in Whiting's coal seam gas wells, a request that Pendragon never submitted to the NMOCD for consideration. Again, any failure to introduce

evidence at the NMOCD hearing is the sole responsibility of Pendragon. Pendragon cannot complain because the NMOCD scheduled an evidentiary hearing on Pendragon's own Application before Pendragon understood the undisputed evidence.

Moreover, post-hearing pressure and production data only confirm that the communication, which Whiting has consistently contended exists, does indeed exist, that the communication was caused by Pendragon, and that the shut-in order related to the Chaco wells has prevented further theft by Pendragon. The shut-in Order regarding those wells has not remedied the conversion by Pendragon of Whiting's gas from 1995 until the Chaco wells were shut-in in 1998.

Pendragon's Motion is a last, desperate attempt to utilize the administrative proceedings to pressure Whiting into resolving this dispute without receiving full compensation for the theft committed by Pendragon from 1995 to 1998. Obviously, Pendragon would be in a better bargaining position if the Commissioner were to order Whiting's coal gas wells shut-in. However, there is no credible or substantial evidence that supports Pendragon's theory. If the Commission were to grant the Motion, it would be aiding and abetting Pendragon's wrongful misconduct in this dispute.

4. <u>The NMOCD Order is not an Improper Delegation of Authority</u>

Pendragon argues that the Commission should stay ¶¶ 54 and 55 of Order R-11133. The NMOCD ordered, as the district court had previously ordered, that the Pendragon Chaco wells be shut-in in order to prevent any ongoing theft by Pendragon. Because Pendragon prosecuted its Application on the theory that there was no communication between the formations, and presented no evidence of communication,

it presented no proposed allocation formula for the NMOCD to consider in the event the NMOCD found that communication existed.

Paragraphs 54 and 55 of Order R-11133 are really an accommodation made by the NMOCD to Pendragon, an accommodation which the NMOCD was not required to make. Having failed to present any allocation evidence, Pendragon should have been required to accept the allocation formula developed by Whiting before the NMOCD. The only credible evidence presented on allocation established that the production from the Pendragon Chaco wells from 1995 to 1998 was between 88.4% to 95% coal seam gas. See partial transcript of testimony of Brad Robinson, attached as Exhibit B.

The NMOCD, while recognizing Pendragon's failure to introduce evidence, nevertheless gave Pendragon an opportunity to address the allocation issue. First, the NMOCD authorized Pendragon to work out an allocation formula acceptable to Whiting. Such a formula could have then been presented to the NMOCD for consideration and approval. Alternatively, the NMOCD found:

> Pendragon should be given the opportunity to propose a method by which its Chaco wells may be produced exclusively from the WAW Fruitland Sand Pictured Cliffs Gas Pool, or a method for producing its Chaco wells in their current state which is acceptable to the Division and to Whiting. These proposals should be evaluated at a forum which allows discussion and/or input from Whiting.

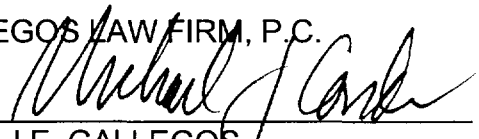
Paragraph 55 clearly requires Division approval of any allocation formula, which is necessary to address Pendragon's past theft and to allow for any future production from the Chaco wells.

The provisions of Order R-11133 regarding which Pendragon complains do nothing more than invite Pendragon to either seek an accommodation with Whiting on an allocation for past and future production from Pendragon's Chaco wells, or alternatively to present evidence to the Division supporting a proposed allocation. Pendragon has chosen to ignore both options, neither of which constitute an improper delegation of administrative authority.

This portion of Pendragon's Motion is moot if the Commission entertains the de novo appeals. If the Commission decides to hear those appeals, Pendragon can present any allocation evidence it wishes, consistent with its Application, and the Commission can make a ruling on allocation formulas to apply to past and future production from Pendragon's Chaco wells. If the Commission requires Pendragon to refile with the NMOCD on its new theories, Pendragon can present any allocation evidence it has available. In either event, there is no reason to stay those portions of Order R-11133.

Respectfully submitted,

GALLEGOS LAW FIRM, P.C.

By 

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CERTIFICATE OF SERVICE

I hereby certify that I have caused a true and correct copy of Whiting's Response in Opposition to Motion for Partial Stay of Order R-11133 to be mailed on this 16th day of March, 1999 to the following:

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PLEASE REPLY TO SANTA FE

August 13, 1998

HAND DELIVERED

David Catanach
New Mexico Oil Conservation Division
2040 South Pacheco
Santa Fe, New Mexico 87504

Re: NMOCD Case 11996; Application of Pendragon Energy Partners, Inc. And J.K. Edwards Associates, Inc. To Confirm Production From The Appropriate Common Source Of Supply, San Juan County, New Mexico

Dear Mr. Catanach:

In connection with the above-referenced case, we enclose the Applicants' draft Order in hard copy form and on disk in Word format. We are also able to provide the draft Order in WordPerfect format, if needed.

Should you require any additional information or materials, please do not hesitate to contact me.

Very Truly Yours,

MILLER, STRATVERT & TORGERSON, P.A.

J Scott Hall by E Lyulatty(?) Ama McSee(?)

J. Scott Hall

JSH/eam
enclosures
cc: J.E. Gallegos
Rand Carroll, NMOCD

EXHIBIT A

STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 11996

APPLICATION OF PENDRAGON ENERGY PARTNERS, INC., AND J. K. EDWARDS ASSOCIATES, INC. TO CONFIRM PRODUCTION FROM THE APPROPRIATE COMMON SOURCE OF SUPPLY, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 8:15 a.m. on July 28, 1998 at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this _____day of August 1998, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) The Applicants, Pendragon Energy Partners, Inc. and J.K. Edwards Associates, Inc. seek the issuance of an order determining that six of the Pictured Cliffs Formation Wells owned and operated by them are completed in and producing from the appropriate common source of supply pursuant to Rule 3 of the Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool, Order No. R-8768, as amended, and 19 NMAC 15.E.303.A of the Division's Rules and Regulations requiring the segregation of production from separate sources of supply.

(3) The Applicant, Pendragon Energy Partners, Inc. ("Pendragon") is the operator of the following wells (The "Subject Pictured Cliffs wells" or the "Chaco

stratigraphic pick set forth in Order No. R-8768 would not be included in the Fruitland coal pool or in the Fruitland formation.

(33) By referring to the stratigraphic equivalent, as that term is used by geologists and the Division, it was the intent of Order No. R-8768 to define the vertical limits of the Basin-Fruitland Coal pool by the identification of rock and rock material of the same type rather than by time equivalence or lateral equivalence. For this reason, in addition to the reasons cited above, it is appropriate to conclude that the Subject Chaco wells are completed in and are producing from the Pictured Cliffs formation.

(34) A number of wells in the area of the Subject Lands produce from the top portion of the third Pictured Cliffs sandstone bench. Well logs indicate the existence of some tight streaks between the third bench and the main bench of the Pictured Cliffs sandstone but it is not clear that those intervals act as a barrier between the third and the main bench. The evidence, including the geologic literature, establishes that operators in the area have refrained from fracture completions in the lower bench of the Pictured Cliffs sandstones due to concerns of fracing into water. However, the existence of a natural water drive mechanism along with gas reservoir pressures in this zone establish that the lower bench of the Pictured Cliffs is a recharge source for both reservoir pressures and gas reserves in the main body of the Pictured Cliffs sandstone.

(35) Additional wellhead shut-in pressures taken subsequent to the June 28, 1998 court-ordered shut in of the Chaco No. 1, Chaco No. 4, Chaco No. 5 and Chaco No. 2-R reflect modest but normal shut-in pressure build up. Slight variations in the shut-in pressures may be attributable to competition from other Pictured Cliffs wells in the reservoir, or from periods of higher pressures throughout the reservoir due to El Paso Field Services shut-in periods, slight water build up in the well bores or measurement inaccuracies.

(36) The production and pressure data from the Whiting and Maralex Fruitland Coal wells for the same period of time, many of which have been placed on compressor, indicate no correlation with the shut-in pressures for the Subject Pictured Cliffs wells.

(37) The production history of the Subject Pictured Cliffs wells compared to the pressure data accumulated prior to the acid jobs and frac jobs on those wells establishes that the reservoir in the immediate vicinity of the well bores had experienced skin damage or other forms of reservoir damage. As a result, production from the Pictured Cliffs had significantly declined prior to the frac jobs and acidization jobs in 1995.

(38) Pendragon presented production history data for the Subject Coal wells as well as production data from six additional Fruitland Coal wells operated by Whiting and Maralex outside the area of the Subject Lands. The Maralex production data for the Subject Coal wells showed that after their initial completion, the wells were unable to produce sufficient volumes of gas to power pumps to unload water produced from the coal de-sorption process. However, by mid 1994, the Subject Coal wells had reached a

state of gas production incline as well as a stabilized rate of decline for water production, indicating that the wells were benefiting from the dewatering process. The production data also established the Subject Wells were behaving much like typical Fruitland Coal wells. The gas and water production decline curves for the coal wells show no inflections indicating any interference from the Subject pictured Cliffs wells.

(39) Production plots for the Whiting/Maralex Fruitland Coal wells outside of the area of the application showed similar production behavior of both gas and water production as the Subject Fruitland Coal wells. However, the same data established that the Maralex Coal wells within the area of the application produced significantly higher volumes of gas than did those wells outside the area of review. The production data establishes that the Subject Fruitland Coal wells are not experiencing interference from the Subject Pictured Cliffs wells.

(40) The production curves montage of the Whiting/Maralex coal gas wells demonstrated that the Subject Coal Gas Wells have been and are presently performing better than the Non-Subject Coal Gas Wells.

(41) The drops in production for the Subject and Non-Subject Coal Gas Wells in August, 1995 correspond to the frequent shut-ins of the El Paso Chaco plant and were preceded and followed by long periods of unusually high line pressure. The production drops during this time do not appear to be the result of any interference from other wells. The shut-ins during this period occurred while the coal wells were in the early stages of de-watering. After the coal gas wells were placed back on production following the shut-in, the wells required addition time to further de-water and the wells did not reestablish their earlier production levels for some time. During this same period, the Pictured Cliffs wells experienced no difficulties in reestablishing pre-shut-in production rates, a further indication that the Subject Chaco Wells were not producing from the coal.

(42) In 1977, initial reservoir pressures in the Pictured Cliffs were between 230 to 250 PSI. Pressure draw-down in the Pictured Cliffs was first indicated in late 1978 and became more apparent by 1983. All of the Subject Pictured Cliffs wells experienced generally the same rate of pressure decline regardless of the volumes of gas produced, suggesting reservoir pressure communication over a very large area. As the rate of decline continued, most of the Pictured Cliffs wells were in the 90 to 130 PSI range. In 1995 pressure readings taken in the Chaco 1J and 2J wells and before the Chaco 4 well was frac'd indicate that pressures had substantially increased from the initial pressure readings taken in 1983 and 1984 and range from between 140 PSI to 190 PSI, indicating the reservoir was only drawn down by 40 percent from the initial reservoir pressures in 1977. Additionally the pressure information indicates the Pictured Cliffs reservoir pressure was increasing prior to Pendragon's fracture stimulations. Moreover, by 1995, there were significantly fewer wells competing for reservoir pressure in the Pictured Cliffs formation, and providing a larger drainage area for a re-stimulated well.

(43) Although the Chaco 1J well was not frac'd, its recent bottom hole pressure of 159 PSI is unchanged from 1995. It is located 600 feet from one of the Subject coal

wells operated by Whiting and Maralex but there is no evidence of interference between the two wells. The Chaco 2J well is currently producing at a 178 PSI pressure, lower than the 198 PSI reported in 1995. Although the Chaco 2J was not frac'd it is located some 200 feet from the Whiting/Maralex Gallegos Federal 26-13-1 No. 1 which was treated with a 112,000 pound frac job.

(44) Casinghead pressures and production readings were taken from the Subject Coal Gas wells during the 1998 shut-in period for the Chaco wells. These readings give the instantaneous pressure and the cumulative production for the past 24 hours. Some of the following readings were taken on the morning after the day El Paso Field Services had declared less-than 24-hour shut-in period for the Chaco Plant. Whiting/Maralex wells were not manually shut-in during this period, but were allowed to produce as they could against the high line pressure resulting from the plant shut-in. The Gallegos Federal No. 1-2 showed a capability of producing between 126 and 154 MCFPD at flowing casing pressures within 6 PSI of the Chaco No. 4 15-day shut-in pressure of 91 PSI. The Gallegos Federal No. 1-1 had produced 240 MCFD with a flowing casing pressure 3 PSI higher than the shut-in pressure of the Chaco No. 4. The Gallegos Federal No. 6-2 produced 432 MCFD with an 82 PSI FCP. The Gallegos Federal No. 12-1 produced 298 MCFD at 91 PSI FCP which was identical to the shut-in pressure of the Chaco No. 4. The Gallegos Federal No. 7-1 produced 308 MCFD with a FCP of 74 PSI. The closest Pictured Cliffs well, the Chaco 2R, 800 feet away had a two-week shut-in pressure of 69 PSI. This evidence establishes that the Subject Pictured Cliffs wells do not appear to be in communication with the same reservoir in which the Subject Coal wells are completed.

(45) Well log and production data from three wells completed in the Pictured Cliffs sandstone in Section 11 reflect increasing porosity and decreasing conductivity in the third bench of the PC which indicates increasing gas saturation and decreasing water saturation. Significantly, the well in the SW/4 SW/4 of Section 11 produced exclusively from the third bench, making more than 93 MMCF. The High-Roll No. 4 produced from all three Pictured Cliffs sands and has made over .5 BCF. Following the recent installation of a compressor, the High-Roll No. 4 experienced more than a twelve-fold increase in production. The well log and production data from these wells support the conclusion that a considerable volume of movable gas exists below the perforations in the Subject Pictured Cliffs wells in tighter rock with lower gas saturations but which will produce commercial quantities with acceptable volumes of water due to the relative permeability's among the zones.

(46) Pressure data for the Chaco 4 and 5 wells reflects that in 1995 those wells were producing at less than 1 percent of their producing rates in 1979 and pressures were equivalent to reservoir pressures in 1979. Such evidence indicates the existence of reservoir damage or skin damage.

(47) Whiting and Maralex presented BTU content gas analysis data to support their position that the decrease in BTU content from the Chaco wells over time is evidence of communication with the Fruitland Coal formation. The gas analysis data

greater viscosity. By comparison, the Pendragon fracture treatments were accomplished at relatively low rates and low volumes.

(53) The evidence established that data derived from Nolte Plots are an effective and reliable means for determining vertical height growth and extension of formation fractures.

(54) The Nolte Plots for the Subject Pictured Cliffs wells showed a slight incline in pressure over the time of the treatment, indicating restricted height growth and lateral extensions of the fractures.

(55) The data derived from Nolte Plots for the Maralex fracture completions on the Subject Coal wells show negative slopes, indicating unrestricted, vertical growth and in one case, "run-away" vertical fractures.

(56) The evidence further established that coal is an effective barrier to fracture growth because it is more elastic than the surrounding sandstones. The cleat systems within the coal body also allow for the pressure at the fracture tip to become diffuse, negating the ability of the tip and fluids to fracture into the coal itself.

(57) The evidence established that the fracture treatments for the Subject Pictured Cliffs wells were designed specifically to utilize the thin coal and shale stringers as effective barriers to maintain containment of the fracture. The effective use of shale and coal sequences as fracture containment barriers was adequately demonstrated by the fracture profiles made available from the Eureka 33-32 well and the Don 44-7 well in the Raton Basin. The use of shale barriers as a reliable means to contain fracture growth was also demonstrated by the fracture profile on the Dome Federal 17 well completed in the WAW Pictured Cliffs formation in Section 17, T-27-N, R-13-W. Moreover, the fracture containment in the Pictured Cliffs sandstone in the Dome Federal 17 well was verified by a tracer survey.

(58) While Nolte Plots are regarded in the industry as a reliable means of determining fracture containment, the testimony and professional engineering literature evidence established that the use of fracture simulators such as "Frac-Pro" regularly exaggerate the height of actual fracture growth, thus making them a less reliable means for determining whether fractures remained contained within zone.

(59) The evidence and data presented were sufficient to support the conclusion that the fracture treatment jobs on the Pendragon Pictured Cliffs wells did not escape out of zone and remained contained within the Pictured Cliffs formation. The evidence available on the date of the hearing was insufficient to allow for a determination whether the significantly heavier fracture treatments on the Whiting/Maralex coal wells actually penetrated into the Pictured Cliffs formation. However, the evidence supports the conclusion that it is more likely than not that the Maralex frac jobs escaped out of the basal coal.

(66) Volumetric reserve estimates based on the log analyses establish that there are sufficient gas resources available in the Pictured Cliffs formation to correspond with the production experienced in the Subject Chaco wells.

(67) The Applicants presented historic gas production data and decline curve analyses for the Subject Pictured Cliffs wells that further substantiate the existence of sufficient in-place gas reserves to correspond with the performance of the Chaco wells. The Pictured Cliffs wells' cumulative production and estimated ultimate gas recoveries are supported by the volumetric analysis and establish the larger drainage area for the wells.

(68) The Applicants also presented material balance analyses establishing that Pictured Cliffs reserves reasonably equate to those reserves determined from the volumetric analysis.

(69) The gas content and pressure data derived from information provided by Whiting and Maralex established a basis for determining Fruitland Coal gas reserves from the Subject Coal wells. Pendragon's reserve estimates for the Fruitland Coal reservoir, based on volumetric calculations, yields reserves consistent with the cumulative production data provided by Whiting and Maralex. The evidence also established that the Subject Coal wells have produced substantially more gas than the other coal gas wells, indicating no loss of reserves from the Subject Coal Gas wells.

(70) The material balance analyses indicate that the Subject Fruitland Coal wells are draining a very large area and do not indicate any loss of reserves to the Subject Pictured Cliffs wells.

(71) The Applicants presented evidence comparing the production performance of the Subject Fruitland Coal wells with six other Whiting/Maralex Fruitland Coal wells in the general area but outside the lands described in the application. Such evidence established that the Subject Coal wells are producing at rates far exceeding the performance of the six non-Subject Fruitland Coal wells operated by Maralex, as well as the normalized production from all other Fruitland Coal wells in the area.

(72) Evidence of comparative water production from the Fruitland Coal wells and the Subject Pictured Cliffs wells presented by the Applicants established that the water production rates for the Fruitland Coal wells is typical. Moreover, the production of only minimal volumes of water by the Subject Pictured Cliffs wells indicated the absence of any communication between the Fruitland Coal formation and the Subject pictured Cliffs wells.

(73) The reservoir engineering evidence presented by Applicants establishes there is no physical evidence that the Subject Pictured Cliffs wells communicated with the Fruitland Coal formation following the fracture and acid stimulation treatments on the Chaco wells in 1995. It is established that the Subject Fruitland Coal wells have

experienced no interference from the production or operation of the Subject Pictured Cliffs wells.

(74) The reservoir engineering evidence presented by the Applicants establishes that the Pendragon Pictured Cliffs wells are producing from their own common source of supply and, further, that Fruitland Coal Bed methane reserves are not being produced from the Subject Pictured Cliffs wells.

(75) The Applicants' reservoir engineering testimony established that there is a substantial likelihood that the Chaco No. 1, Chaco No. 4, Chaco No. 5 and Chaco No.2-R wells, which were ordered shut-in at the request of Whiting and Maralex, will incur damage from water imbibing back into the surrounding reservoir as a result of the shut-in.

The Division, after consideration of the geologic and engineering evidence in testimony presented by all parties in this case, FINDS;

(76) The Basin-Fruitland Coal Gas Pool and the WAW Fruitland-Pictured Cliffs Pool have previously been declared to be separate common sources of supply by orders No. R-8768, as amended, and R-8769, as amended, respectively and are a separate common source of supply within the meaning of Section 70-2-33 of the Oil and Gas Act.

(77) The Subject Chaco wells are completed and perforated in and are producing from the Pictured Cliffs formation sandstone within the vertical limits of the WAW Fruitland-Pictured Cliffs Pool.

(78) The Subject Coal Gas wells operated by Maralex Resources, Inc. were drilled to and completed in the basal coal body of the Fruitland formation contained within the vertical limits of the Basin-Fruitland Coal Gas Pool.

(79) Consistent with the finding in paragraph 76, above, that the Subject Pictured Cliffs wells and Subject Coal Gas wells are completed in separate common sources of supply, the production from and the operations in one pool do not result in the impairment of correlative rights in the other. The upper sets of perforations found in each of the Subject Pictured Cliffs wells are located in and are producing gas from the Upper Pictured Cliffs bench of the Pictured Cliffs formation rather than from a Fruitland sandstone.

(80) That sandstone interval identified by the geologic exhibits and geologic literature as the Upper Pictured Cliffs sandstone is recognized to be a part of the marine Pictured Cliffs sandstone formation.

(81) The acidization and fracture stimulation treatments performed on the Applicants Subject Pictured Cliffs wells did not cause the Pictured Cliffs formation to become communicated or result in any interference with production from the Fruitland Coal formation.

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:	)	CASE NO. 11,996
APPLICATION OF PENDRAGON ENERGY PARTNERS, INC., AND J.K. EDWARDS ASSOCIATES, INC., TO CONFIRM PRODUCTION FROM THE APPROPRIATE COMMON SOURCE OF SUPPLY, SAN JUAN COUNTY, NEW MEXICO	)	

REPORTER'S TRANSCRIPT OF PROCEEDINGS, Volume III

EXAMINER HEARING

BEFORE: DAVID R. CATANACH, Hearing Examiner

July 30th, 1998

Santa Fe, New Mexico

This matter came on for hearing before the New Mexico Oil Conservation Division, DAVID R. CATANACH, Hearing Examiner, on Thursday, July 30th, 1998 (Vol. III), at the New Mexico Energy, Minerals and Natural Resources Department, Porter Hall, 2040 South Pacheco, Santa Fe, New Mexico, Steven T. Brenner, Certified Court Reporter No. 7 for the State of New Mexico.

* * *

But for the most part, this is a very thin sand that's moving out into a -- being deposited in a quiet-water environment. And you can see that we're going from something that's a little thick and upward-coarsening over here, to a spike here, to just a little blip on the log there. It's not a very impressive sandbody in terms of thickness or -- at least from what appears here.

MR. CHAVEZ: Okay, thank you.

EXAMINER CATANACH: Mr. Condon?

MR. CONDON: I just have one question. Could the witness be excused?

EXAMINER CATANACH: The witness can be excused.

MR. CONDON: Thank you.

(Thereupon, a recess was taken at 4:40 p.m.)

(The following proceedings had at 4:50 p.m.)

EXAMINER CATANACH: Okay, Mr. Gallegos?

MR. GALLEGOS: Yes, we call to the stand Bradley Robinson.

BRADLEY M. ROBINSON,

the witness herein, after having been first duly sworn upon his oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. GALLEGOS:

Q. Will you state your name, please?

A. Bradley M. Robinson.

Q. Where do you live, Mr. Robinson?

A. I live in College Station, Texas.

Q. Who are you employed by?

A. By S.A. Holditch and Associates.

Q. Okay. I'm going to ask you about your qualifications, but do you have a booklet of Exhibits, and we can include the Exhibits 34 through 36 and 58 through 65 --

A. Yes, I do.

Q. -- that you're going to sponsor? All right.

And Mr. Examiner, I just want to point out to you and everybody else, it's kind of hard to find some of these -- under Tab 36, then, 58 follows. So we get around there, we watch for that, because it's just the way the tabs overlay each other.

A. Okay.

Q. All right. Tell the Examiner, if you would, about your -- both your professional education and your professional experience, up to the present time.

A. Okay, I graduated in 1977 from Texas A&M University with a bachelor's of science degree in petroleum engineering.

I went to work for a couple years for Marathon Oil Company out in west Texas. At that time, in 1979, latter part of 1979, I went to work for S.A. Holditch and

Associates, Inc.

While I was employed by Holditch and Associates, I went back to school on a part-time basis and got my master's of science degree in petroleum engineering.

Since I've been employed by Holditch and Associates I've dealt with primarily the completion, evaluation and stimulation of unconventional reservoirs, tight-gas sands, Devonian shales, fractured shales, coalbed methane reservoirs. I've been involved in numerous projects for the Gas Research Institute over the past 10 to 12 years regarding unconventional gas reservoirs.

Q. Do you teach courses in hydraulic fracture stimulation of wells and reservoir engineering?

A. Yes, I do.

Q. All right. Just by way of a few brief examples, who are the attendees, typically, of the courses that you present?

A. Some of the major service companies, Dow Well, we've taught well completions for them, stimulation to PDVSA, which is the national oil company of Venezuela, some of the major oil companies. I've taught schools, Texaco, Maxis, independents, virtually all sizes and types of companies, either myself or my company I have taught schools for.

Q. Have you testified as an expert witness on well-

producing from the Fruitland Coal formation?

A. Yes, that's correct.

Q. Now, were you requested in your third assignment to do a study to attempt to quantify on a relative basis if one were to look at the situation back in 1995, how much gas was available for these Chaco wells from the Pictured Cliff formation, how much from the Fruitland Coal formation, so that an allocation might be made as to the relative percentages or quantities of production from those wells, from those two formations?

A. Yes, I was.

Q. All right, and does Exhibit 58 reflect the results of that effort?

A. Yes, it does.

Q. All right, would you explain the method, the data and the results of that study?

A. What I did, the first column in the page 1 of Exhibit 58 is, of course, the well.

The next column is labeled "Pictured Cliffs remaining gas in place", and that was the remaining gas in place as of 1995 that I estimated based on my production analysis.

Q. Okay, even though this is not dated, this does not address the current situation. If we took the time in 1995 when the reworks were being done on these wells,

that's what we'd be looking at?

A. That's right.

Q. Okay, all right.

A. That's my original gas in place, minus the production up to that time of fracture stimulation. So it's what's left in the ground. Okay? Not going to get all that out, because there's some recovery factor you've got to apply to it. That's how much remaining gas was down there, based on the production analysis.

The next column is an estimate for the Fruitland Coal thickness in those wells. We looked at the logs, I looked at them with Dr. Ayers, and we estimated a coal thickness for each of those wells.

And then applying the standard factors for calculation of coal reserves, which the assumptions are on the bottom of the page, we calculated in the fourth column the original gas in place in the Fruitland B coal. Again, not recoverables, not reserves, just how much gas is calculated to be in place for the Fruitland B Coal, based on, in this first case, 320-acre drainage areas.

And then we -- Just as a first shot at this, I took the totals and added them up and figured out of the original gas in place what percent was Pictured Cliffs and what percent was Fruitland Coal, and that's the last two columns.

Q. All right. And does this approach give the -- adopt the assumption that these Chaco wells would drain as much as 320 acres, and even though your studies have shown that -- not drain half of that, but that they would drain 320 acres?

A. In the Fruitland B Coal?

Q. As to the Fruitland Coal?

A. Yes.

Q. All right. And what is the second study of Exhibit 58, and how does it differ?

A. Well, I tried to pick -- I did it with several different assumptions, and I wanted to try to pick a high case and a low case. So the second page is sort of my low-case scenario, where I've dropped my drainage area down to 160 acres and said, Okay, they'll only drain 160 acres --

Q. Of the coal?

A. -- of the coal, excuse me, you're right.

Q. All right.

A. I've said, Okay, we'll lower the gas content down. Most people -- I've heard values from 85 to 110 standard cubic feet per ton. I've assumed a little bit less than that to be ultraconservative, and have gone through the same calculation of gas in place for the Fruitland Coal and then again calculated the percentages.

So this, in my mind, is kind of a high- and low-

end case of the allocation of gas in place in these wells.

Q. Okay. So in 1995, if one were attempting to fairly allocation the production from these wells to the two relative formations, the Fruitland Coal and the Pictured Cliffs, would this represent the -- probably the, as you as say, the high and the low, five to 95 percent, or 11.6 to 88.4 percent?

A. Did you say gas in place, or the production?

Q. This would just be gas in place.

A. This just the allocation of the gas in place?

Q. Well, just even assuming -- Just for purposes of this question, just to make it simple, we'll assume that you could produce 100 percent of this gas. This would still -- This would reflect the relative allocation and production? That would be your opinion?

A. It's not that simple, I wish it was. But, you know, given a simplistic approach, look, this is probably as fair a way to do it as anything.

You know, that would let Pendragon produce every drop of gas out of their wells, even though it's impossible. That would allow them to produce all that gas, which they already have, by the way.

And so, you know, somewhere between five and ten percent of what they produced is probably Fruitland -- I mean, Pictured Cliffs gas. And the rest is Fruitland Coal.

Q. Okay, and explain to the Examiner your statement when you say allow them to produce every drop of gas they have in the reservoir, even though that's not possible, but they've already produced that.

A. Well, you see the remaining reserves, and what Mr. Williams did was calculate how much gas they produced since the frac jobs. And in the case of Chaco 1, it's 275 million; they only had 83 million left of the total gas in place.

And it's the same for each one.

The Chaco 2-R, approximately 50 million been produced; they only had about 33 million left.

Chaco 4, 389 million produced; they only had about 66 million left.

And in the Chaco 5, almost 363 million; and about 54 million were left at that point in time.

Q. Now, even if you didn't believe in the numbers, did I ask you to just do an exercise, just sort of a let's see what happens, if you take either one of the theories that's been presented by Pendragon to account for all this gas production, one theory being, well, we've got more pay than we had before because we're getting gas from that second unit of the Pictured Cliffs formation, or the theory that we're getting more recovery because we have less wells competing, so instead of just draining them with our

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PLEASE REPLY TO SANTA FE

March 11, 1999

HAND DELIVERED
Lori Wrotenbery, Chairman
New Mexico Oil Conservation Commission
2040 South Pacheco
Santa Fe, New Mexico 87505

Re: NMOCD Case No. 11996; Application of Pendragon Energy Partners, Inc. to Confirm Production from Appropriate Common Source of Supply, San Juan County, New Mexico (Order No. R-11133)

Dear Ms. Wrotenbery:

Enclosed for filing in the above-matter are three duplicate originals of Pendragon's Response to Motion to Stay Proceedings and to Quash Subpoenas Duces Tecum.

Very Truly Yours,

J. Scott Hall

JSH:cw
Enclosure:

cc: Jami Bailey (w/enclos.)
Lyn Hebert, Esq. (w/enclos.)
Michael Condon, Esq. (w/enclos.)

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

IN THE MATTER OF:

APPLICATION OF PENDRAGON ENERGY PARTNERS, INC., PENDRAGON RESOURCES, L.P., And EDWARDS ENERGY CORPORATION TO CONFIRM PRODUCTION FROM THE APPROPRIATE COMMON SOURCE OF SUPPLY, SAN JUAN COUNTY, NEW MEXICO

CASE NO. 11996
ORDER NO. R-11133

RESPONSE TO
MOTION FOR STAY OF PROCEEDINGS
AND TO QUASH SUBPOENAS DUCES TECUM

Pendragon Energy Partners, Inc., Pendragon Resources, L.P., and Edwards Energy Corporation[1], (together, "Pendragon"), for their response to the Whiting/Maralex Motion For Stay and Motion to Quash, state:

Whiting and Maralex seek to revisit earlier orders of the Division and the District Court which both determined that this agency's exercise of jurisdiction over this case is proper. Having previously lost on this same point not once, but three times now, it is surprising that Whiting and Maralex would make this dead-horse argument once again. Not only is this true of the unnecessary jurisdictional motion, but of the motion to quash as well. Rather than contravene the earlier rulings of the Division and the District Court, the Commission should reject the Whiting/Maralex delaying motion and allow this proceeding to go forward with dispatch.

[1] Successor to J.K. Edwards and Associates, Inc.

THE MOTION FOR STAY OF PROCEEDINGS

At the outset, it is important to remember that it was Maralex and Whiting, not Pendragon, who precipitated this dispute and who originally invoked the Division's jurisdiction. Whiting and Maralex omit this significant fact from their motion.

In 1996, Maralex and Whiting brought this matter to the Division's attention, seeking relief pursuant to their allegations that the drilling or the fracture restimulation operations in the Pictured Cliffs wells now operated by Pendragon had caused that formation to become communicated with the Basin-Fruitland Coal formation. Pendragon disputed that its relatively light stimulation treatments had caused any communication and noted that, if anything, the substantially heavier, overly aggressive frac jobs Maralex applied to its coal wells were much more likely to have penetrated out of zone.

In view of the dispute, on January 13, 1998, Whiting and Maralex filed their Application in Case No. 11921[2] invoking this agency's jurisdiction under NMSA 1978 Sec. 70-2-12.B.(2), (7) and 10 (1987 Repl.), Division Rule 104.D (3) and Order No. R-8768. Substantial discovery was conducted and the parties had expended significant effort preparing for the hearing in Case No. 11921 when in May of last year, Whiting and Maralex suddenly abandoned their application and scurried to district court, attempting to convert the dispute from one involving the conservation of this state's natural resources into a money case, instead. Pendragon saw through the forum-hopping ruse and promptly filed its Application in this case. Indignant, Whiting and Maralex then set out to attack the Division's exercise of subject matter jurisdiction over this case.

---

[2] Application of Whiting Petroleum Corporation and Maralex Resources, Inc. for an Order Shutting-In Certain Wells, San Juan County, New Mexico. On February 10, 1998, the Applicants filed an Amended Application in Case No. 11921: Application of Whiting Petroleum Corporation and Maralex Resources,

Adverse ruling No. 1.

On June 15, 1998, Whiting and Maralex filed with the Division their first motion to dismiss this case,[3] calling it "confused and cavalier" and making largely the same argument they make here. In its Response to the Whiting/Maralex motion, Pendragon noted the applicability of a number of provisions of the New Mexico Oil and Gas Act and the Division's rules and regulations. (See Response To Motion To Dismiss, Exhibit A, attached.) There, Pendragon pointed to the Division's unique expertise and statutory mandate to resolve the underlying dispute:

> The Division's powers[4] broadly encompass the prevention of underground waste, defined as the "prevention of inefficient, excessive or improper use or dissipation of reservoir energy" and "the locating, spacing, drilling, equipping, operating or producing, or any well or wells in a manner to reduce or tend to reduce the total quantity of ...natural gas ultimately recovered from any pool...". Sec. 70-2-3 (A) NMSA 1978 (1935). Moreover, no other body in the State possesses the technical expertise in petroleum geology and petroleum engineering necessary to effect a solution to these particular issues should one be required. Only the Division can resolve the factual questions presented to it... See Far East Conference v. The United States, 342, U.S. 570 (1952). This view has been acknowledged by the New Mexico Supreme Court when it affirmed that NMOCD decisions are accorded special weight and credence in light of the Division's technical competence and specialized knowledge. See Grace v. Oil Conservation Commission, 87 N.M. 203, 531 P.2d 939 (1975).

On June 23, 1998, after a hearing, the examiner agreed that the Division should determine the issues raised in the Pendragon Application and accordingly denied the Whiting/Maralex motion.

Adverse ruling No. 2.

Inc. for an Order Shutting-In, Limiting Production From, Or Approving Downhole Commingling In Certain Wells, San Juan County, New Mexico.

[3] NMOCD Case No. 11996; Motion of Whiting Petroleum Corporation and Maralex Resources, Inc. To Dismiss Application For Lack Of Jurisdiction.

[4] The Commission and the Division exercise concurrent powers. NMSA 1978 Sec. 70-2-11 (1995 Repl.)

Disregarding the Division's ruling on their June 15, 1998 motion, Whiting and Maralex nevertheless pursued their separate District Court Motion For An Order Enjoining Defendants From Prosecuting An Administrative Proceeding. There, as here, Whiting and Maralex argued in essence that the District Court should "enjoin defendants from pursuing their vexatious and duplicative application with the OCD." This misnamed and misdirected District Court motion was, in substance and effect, an application for a writ of prohibition directed against the Division, which sought to prevent this agency from hearing the Application in Case No. 11996. So far as we know, Whiting and Maralex filed their motion without advising the NMOCD.

At the same time, Pendragon's June 25, 1998 Motion To Dismiss For Lack Of Subject Matter Jurisdiction was also pending before the District Court. There, again, Pendragon argued that only the Division, by statutory delegation, had the specifically enumerated responsibility:

> "a) to prevent natural gas from escaping from strata in which it is found into other strata; b) to require wells to be drilled, operated and produced in such manner as to prevent injury to neighboring leases or properties; c) to fix the spacing of wells; ... and e) to determine the limits of any pool producing natural gas and from time to time re-determine the limits. Section 70-2-12(B)(2), (B)(7), (B)(10), (B)(11) and (B)(12) NMSA 1978 (1935).

Pendragon also argued that the Court should defer to the Division's technical expertise under the doctrine of primary jurisdiction. See Schwartzman, Inc. v. Atchison, Topeka, & Santa Fe Railway Co., 857 F.Supp. 838 (D.NM 1994); see also State ex rel. Norvell v. Arizona Public Service Co., 85 N.M. 165, 510 P.2d 98 (1973).

On June 28, 1998, the District Court rejected the Whiting/Maralex Motion To Enjoin the Administrative Proceeding and granted instead Pendragon's Motion To Dismiss For Lack Of Jurisdiction, in part. In its Order, the District Court said:

> "Defendants have requested that the Court refer this matter to the New Mexico Oil Conservation Division under the doctrine of primary jurisdiction. This Court has determined to defer to the jurisdiction of the New Mexico Oil Conservation Division in view of the greater expertise of the New Mexico Oil Conservation Division in this particular field and to promote more uniform decision making."[5]

(See July 6, 1998 order regarding Motion to Dismiss for Lack of Jurisdiction, Exhibit B.)

Adverse ruling No. 3.

Following the entry of the court order, the parties duly proceeded to hearing before the Division's examiner on July 28-30, 1998, and on September 8, 1998, while the issuance of Order No. R-11196 was pending, Pendragon applied to the District Court to stay discovery in that forum. In connection with that motion, Pendragon noted that the central issues in the dispute were pending before the agency and that the Court had previously determined deference to the Division was both necessary and appropriate in order to assure more uniform decision making. It was also pointed out that the authorities on the subject of comity among tribunals agree that "[c]ourts often consider these motions in an effort to maximize the effective utilization of judicial resources and to minimize the possibility of conflicts between different courts." Wright & Miller, Federal Practice and Procedure: Civil 2d Sec. 1360, at pg. 439 (emphasis added). This same

[5] Following the Court's ruling, counsel for Whiting and Maralex, writing on this case for the State Bar of New Mexico Natural Resources, Energy & Environmental Law Section's Winter 1998-99 periodical seemed irritated that what they called the "more oil company friendly" NMOCD would have jurisdiction over any issues at all.

concept is equally applicable where cases are pending both before a court and an administrative agency. Id., at fn. 26, citing to In the Matter of Standard Gas & Elec. Co., 16 F.R.D. 221 (D. Del. 1954). Whiting and Maralex naturally opposed the Pendragon motion, contending, incorrectly, that none of the matters pending before the Division should be dispositive of any issues before the Court.[6]

Once again, the District Court agreed with Pendragon. In its Memorandum Decision on Pendragon's motion, it said:

> "Mindful that the central issues in this case are before the New Mexico Oil Conservation Division for determination in a presently pending proceeding and that there is a provision for discovery by the parties in this context, the court finds that a Stay of discovery in the present civil litigation would reduce costs to the parties, avoid duplication of effort in decision-making and promote judicial economy."

(See October 30, 1998 Memorandum Decision, Exhibit C; Order of Stay of Discovery, Ex. D.)

The circumstances supporting these findings continue to be true today. Nothing has changed.

It is unlikely the District Court will reverse its earlier findings with respect to (1) deferring to the agency's expertise on this subject matter, (2) the need to promote uniform decision making, or (3) avoiding duplication of effort. As evidenced by its orders, the Court was fully aware this matter would advance to a **de novo** proceeding before the Commission. It is clear the Court is expecting the agency to exercise jurisdiction here. The jurisdictional and factual circumstances have not changed and Whiting and Maralex offer no good grounds for staying this proceeding. The

[6] In this regard, Whiting and Maralex overlooked the authority of Amoco Production Company v. Heimman, 904 F. 2d 1405 (10th Cir. 1990), reaffirming the Commission's ability to act in a judicial capacity.

Commission should accordingly honor the earlier rulings of both the Division examiner and the District Court and, consistent with those rulings, enter its order denying this latest delaying motion.

The Alternative Request To Conduct Discovery

We agree with Whiting and Maralex that discovery should be done before the **de novo** hearing. However, the Commission should guard against allowing the hearing date to become delayed because of such matters as scheduling, depositions, objections to subpoenas and other extraordinary discovery disputes. The provisions for regular discovery under Rule 1221 and the agency's customs and practices should be honored and discovery disputes should be quickly and appropriately resolved as is the Commission's practice. The statutorily authorized discovery under Section 70-2-8 has proved both efficient and adequate in past cases and should serve equally well in this case.

Under the strict operation of Rule 1220, this case should be set for hearing on the Commission's March 25, 1999 docket. However, counsel are in agreement that the case will take four to five days to present, making it unrealistic to include the matter on the regular hearing docket. Accordingly, it is requested that the matter be set for a special hearing before the next regularly scheduled Commission docket on April 22nd.

The parties and the Commission fully understand the significance of this case and the need for resolution sooner rather than later. To date, Pendragon has made every effort to move with dispatch in the conduct of its discovery and the preparation of its case for hearing. Whiting and Maralex, on the other hand, have failed to act with the same diligence. They should not be heard to complain later that they have not had adequate

time to prepare. Nothing prevents Whiting and Maralex from obtaining their own documents subpoenas other than their own inaction.

THE MOTION TO QUASH SUBPOENAS

At the outset, we note that Whiting and Maralex appeared to be operating under the misapprehension that the subpoena duces tecum served on the Schlumberger/Holditch witness sought more than the expert's underlying facts, data or materials. The subpoena does not seek interpretations, analysis or other materials constituting the expert's work product, and accordingly, we do not seek any materials that the Division and Commission traditionally do not require to be produced of experts.

We conferred with counsel in an effort to reconcile this particular discovery dispute and, subject to counsel's further discussion with the expert witness, it is believed that this particular objection has been resolved. It is understood, however, that this agreement between counsel is subject to Whiting's larger objection to the conduct of discovery pending a ruling on the Motion for Stay of Proceedings. Should this situation change, the Commission will be advised.

With respect to the remaining subpoenas, Whiting and Maralex make no substantive, technical or procedural objection. Their motion for an order quashing those subpoenas is based wholly on their larger request for the Commission to stay this administrative proceeding. Accordingly, the points and authorities set forth in the first section of this Response are applicable and no further comment is necessary.

Respectfully submitted,

MILLER, STRATVERT & TORGERSON, P.A.

By: _____

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Attorneys for Pendragon Energy Partners, Inc., Pendragon Resources, L.P. and Edwards Energy Corporation

CERTIFICATE OF SERVICE

I hereby certify that I have caused a true and correct copy of the foregoing to be mailed on this 11th day of March, 1999 to the following:

Lori Wrotenbery, Chairman
New Mexico Oil Conservation Commission
2040 South Pacheco
Santa Fe, New Mexico 87505

Commissioner Jami Bailey
New Mexico State Land Office
310 Old Santa Fe Trail
Santa Fe, New Mexico 87501

J.E. Gallegos, Esq. and
Michael Condon, Esq.
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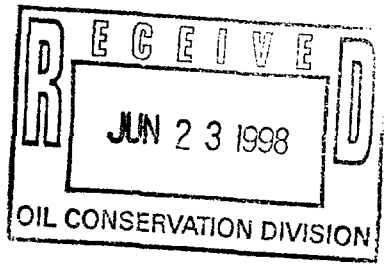
STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES
DEPARTMENT
OIL CONSERVATION DIVISION



IN THE MATTER OF:

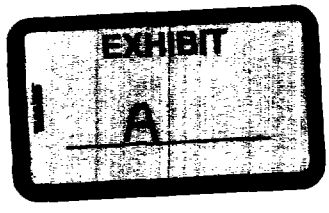
APPLICATION OF PENDRAGON ENERGY PARTNERS, INC. and J.K. EDWARDS ASSOCIATES, INC. TO CONFIRM PRODUCTION FROM THE APPROPRIATE COMMON SOURCE OF SUPPLY, SAN JUAN COUNTY, NEW MEXICO. **CASE NO. 11996**

RESPONSE TO MOTION TO DISMISS APPLICATION FOR LACK OF JURISDICTION

Pendragon Energy Partners, Inc. ("Pendragon") and J. K. Edwards Associates, Inc. ("J. K. Edwards"), for their response to the motion submitted on behalf of Whiting Petroleum Corporation and Maralex Resources, Inc. to dismiss this matter for lack of jurisdiction state:

BACKGROUND FACTS

Whiting and Maralex first invoked the Division's jurisdiction well over two (2) years ago when it first sought the agency's expertise in resolving a perceived problem of communication between the Pictured Cliffs formation in the WAW Fruitland-Pictured Cliffs Pool and the Basin-Fruitland Coal formation. (See Whiting/Maralex Motion to Partially Quash Subpoena Duces Tecum; Case No. 11921.) Although their approach to



the problem was suspect and their analytical methods flawed, Whiting and Maralex represented to the Aztec District Office of the NMOCD that drilling and fracture restimulation operations in the Pictured Cliffs interval by Pendragon caused that formation to become communicated with the Basin-Fruitland Coal formation and that Pendragon's Pictured Cliffs completions were producing coal bed methane.[1] If indeed the operations in the Pictured Cliffs formation are causing interference with production from the Fruitland formation as Whiting/Maralex say, then ostensible violations of a number of the statutes, rules and orders administered by the Division are implicated.

In addition to their multiple contacts and on-going consultation with the NMOCD Aztec District Office, Whiting and Maralex compiled what they have called a "detailed engineering study" which its styled "Fruitland/PC WAW Study-Gallegos Canyon Project" dated December 1, 1997. This study was prepared for and presented to the NMOCD. Soon thereafter, at the request of Whiting and Maralex, the NMOCD Aztec District Office convened a number of public meetings between January and April of 1998. These meetings were attended by, among others, representatives from Whiting, Maralex, Pendragon, J. K. Edwards and the BIA/BLM. At the initial meeting, the Division and the parties agreed that the scope and purpose of the meetings would be as follows:

1. To determine if the Pictured Cliffs completions were interfering with production from the Fruitland Coal.

2. To identify the affected wells.

3. To identify regulatory solutions to bring wells into compliance with NMOCD Rules and Regulations.

[1] The Pendragon wells are completed in and producing from the Pictured Cliffs formation below the base of the Fruitland formation. None of the Pendragon wells are completed in the sandstone interval of the Fruitland formation.

Contemporaneous with the first meeting before the Division, Whiting and Maralex filed their Application in NMOCD Case No. 11921. (Exhibit A, attached.) In their initial Application, Whiting and Maralex generally alleged, as before, that the drilling and fracture restimulation operations in the Pictured Cliffs formation had caused that formation to become communicated with the Basin-Fruitland Coal formation. Whiting and Maralex also claimed that Pendragon's Pictured Cliffs wells were draining reserves owned by Whiting and the other interest owners in its wells and that their correlative rights were being impaired. Whiting and Maralex specifically invoked the Division's jurisdiction under N. M. Stat. Ann. § 70-2-12. B. (2), (7) and 10, NMOCD Rule 104.D (3), and Order No. R-8768, Special Pool Rules 2 and 3, seeking regulatory relief, including the issuance of an order requiring Pendragon's Pictured Cliffs wells to be shut-in.

Subsequently, on February 10, 1998, Whiting and Maralex, at the request of the Division, filed their Amended Application seeking additional administrative relief, including down-hole commingling in accordance with Rule 12 of the Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool as promulgated by the Division in Order No. R-8768-A. (Exhibit B, attached.)

In the interim, the parties continued to participate in the public meetings before the Division and Whiting and Maralex persisted in seeking regulatory redress for the claimed numerous violations by Pendragon of the New Mexico Oil and Gas Act and the Division's Regulations. The parties expended significant time, effort and cost in preparing for the Division hearing on the Whiting/Maralex Application and the matter was set to proceed to hearing on June 11, 1998. Suddenly, at the eleventh hour, Whiting

and Maralex lost faith in their case and the administrative process. On May 26, 1998 Whiting and Maralex attempted to withdraw from the administrative proceeding which they, themselves, initiated and instead began their forum-hopping adventure in avoidance of the Division's jurisdiction. That same day, Whiting and Maralex filed their District Court lawsuit. While their District Court actions seeks judicial relief under novel and unique common law theories, the underlying factual allegations are the same as those raised in their administrative applications and are based upon numerous claimed violations of the New Mexico Oil and Gas Act and the Division's Rules, Regulations and Orders. Indeed, both proceedings seek the drastic relief of an order requiring Pendragon to shut-in its Pictured Cliffs wells.

THE APPLICABILITY OF DIVISION JURISDICTION

Whiting and Maralex originally invoked the Division's jurisdiction and discretion under the New Mexico Oil and Gas Act, the Division's Rules, and Order No. R-8768-A in particular. Now, however, Whiting and Maralex improperly seek to circumvent this agency's legitimate exercise of its regulatory authority over oil and gas operations. To justify their forum-hopping, Whiting and Maralex set forth a lengthy discourse on the nature of their common law claims and property ownership issues. These matters are wholly inapposite to the issues brought before the Division by the Pendragon/J. K. Edwards Application and the original claims that Whiting and Maralex had pursued before the Division for well over two (2) years.

The Whiting and Maralex assertions, if true, involve serious violations of The Oil and Gas Act, the Division's Rules its and Orders. Among others, the claims implicate

violations of the following statutes and regulations administered exclusively by the Division:

§ 70-2-12 B(2):	Segregation requirement.
§ 70-2-10:	Filing false reports; NMOCD filing forms implicated by the Whiting/Maralex allegations are Form C-101 Application For Permit To Drill, Deepen Or Plug Back; Form C-103 Sundry Notices And Reports On Wells; Form C-105 Well Completion Or Recompletion Report And Log; Form C-107 Application For Multiple Completion (Commingling).
§ 70-2-28:	Sets forth the obligation of the Division to bring suit for violations of any provision of the Oil and Gas Act or any rule, regulation or order of the Division.
§ 70-2-29:	Provides that it is the primary responsibility for the Division to bring an action for enjoining violations of the act.
§ 70-2-31:	Penalties for violations of the Oil and Gas Act.
Rule 303.A:	Segregation requirement.
Rule 104.D.3:	Simultaneous dedication.
Rule 112.A:	Unapproved multiple completions.
Rule 303.C.1.B:	Down-hole commingling.
Rule 304:	Segregation required for different common sources of supply.
§ 70-2-12.B(12):	The OCD has the power to "to determine limits of any pool producing.....natural gas....and from time to time redetermine the limits." (Both vertical and horizontal limits.)
§ 70-2.6 and 70-2-11:	General authority for the Division to enforce the provisions of the Oil and Gas Act (including the issuance of shut-in orders.)
Order R-8768:	Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool.

No other body, judicial, administrative or otherwise has been charged with the specific statutory mandate to exercise jurisdiction, authority and control over oil and gas

operations in this state. See § 70-2-6-A NMSA 1978 (1935); See also Continental Oil Company v. Oil Conservation Commission, 70 N.M. 310, 323, 373 P.2d. 809, 817 (1962). The Division's powers broadly encompass the prevention of underground waste, defined as the "prevention of inefficient, excessive or improper, use or dissipation of reservoir energy" and "the locating, spacing, drilling, equipping, operating or producing, of any well or wells in a manner to reduce or tend to reduce the total quantity of ....natural gas ultimately recovered from any pool....". § 70-2-3-A NMSA 1978 (1935). Moreover, no other body in the State possesses the technical expertise in petroleum geology and petroleum engineering necessary to effect a solution to these particular issues should one be required. Only the Division can resolve the factual questions presented to it in both the Pendragon/J.K. Edwards Application in Case No. 11996 and the Whiting/Maralex application in Case No. 11921. See Far East Conference v. The United States, 342 U.S. 570 (1952). This view has been acknowledged by the New Mexico Supreme Court when it affirmed that NMOCD decisions are accorded special weight and credence in light of the Division's technical competence and specialized knowledge. See Grace v. Oil Conservation Commission, 87 N. M. 203, 531 P.2d 939 (1975).

The fact that Whiting and Maralex are attempting to bring a separate suit in district court does not mean that the Division is somehow required to abstain from or defer action on this Application. Indeed the opposite is true.

New Mexico courts, both federal and state, have long-recognized the doctrine of primary jurisdiction. The doctrine often comes into play where issues requiring a regulatory body's technical expertise are involved. In such cases, the doctrine recognizes

that the administrative process should be allowed to proceed whenever dispute requires the resolution of issues which, under a regulatory scheme, have been placed within the special competence of an administrative body. See State ex rel. Norvell v. Arizona Public Service Co., 85 N.M. 165, 510 P.2d 98 (1973).

This case is a perfect example of the applicability of the primary jurisdiction doctrine. Contrary to the assertions of Whiting and Maralex, Pendragon and Edwards do not seek to have the Division declare the "entitlement" of one party to produce coalbed methane through their Pictured Cliffs completions, or vice versa. Neither does the Application ask the Division to declare the Fruitland coal formation and the Pictured Cliffs formation are a "common source of supply." More correctly, the application requests the Division (1) to determine the parties' wells are completed and producing in accordance with the Division's rules and orders. If not, then the Division is fully authorized to bring the wells into compliance with the regulations by a variety of means. The exercise of authority in such manner is fully in accord with the Division's mandate to prevent waste and maintain the segregation between different common sources of supply. (§70-2-2; §70-2-12 B[2].)

THE DIVISION EXPRESSLY RETAINED JURISDICTION OVER THE SUBJECT MATTER OF THIS APPLICATION BY VIRTUE OF ORDER NO. R-8768.

As the Division has consistently done, Order No. R-8768 establishing the Basin-Fruitland Coal Gas Pool provided that "Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary." (Decretal Paragraph 9, Order R-8768, as amended, Exhibit D, attached.) The argument that the Division has now somehow lost jurisdiction over matters arising under the terms of Order R-8768 is baseless. In this regard, a recent case raises interesting parallels:

In **Case No. 11792, Application of Doyle Hartman To Give Full Force And Effect To Commission Order R-6447,** Hartman, a non-operator in the Myers Langlie-Mattix Unit, filed his application with the Division at the same time he pursued separate common-law claims against the unit operator in district court.

In addition to invoking the Division's jurisdiction to address the matter of the claimed escape of water out-of-zone from unit operations, the applicant (Hartman) also sought the Division's declaration and enforcement of the terms of its prior order approving of the unit. There, Hartman cited the Division's expertise and the agency's statutory mandate giving rise to its "primary jurisdiction" over the dispute. Hartman also argued that the Division's retained jurisdiction over the matter under the express terms of the orders approving of the unit. (See excerpts from Hartman's Response To Oxy's Motion To Dismiss, Case No. 11792, Exhibit C, attached.) Hartman argued:

> "[C]hanges in circumstance and factual developments often occur after the date of entry of an Order which require subsequent action by an administrative agency after entry of an order. That is the very purpose for

including the retained jurisdiction provision in the orders." Id., at page 33.[2]

It is a point well taken and one that is particularly applicable here.

Just like Order No. R-6447 approving of the Myers Langlie-Mattix Unit, Order No. R-8768 for the Basin-Fruitland Coal Gas Pool also provides that the Division retains jurisdiction. (Order No. R-8768, decretal paragraph 9, Exhibit D.) It is also significant that Order No. R-6778, in both establishing operating rules and the designating the vertical limits for the Basin-Fruitland Coal Gas Pool, made special provisions for the Division to monitor operations in and production from the coal formation and the nearby sandstone formations. Although each formation is its own separate "common source of supply", the Division anticipated the possibility of problems, either real or perceived, with simultaneous operations in separate zones laying in close proximity to each other and with foresight, wisely provided a means for the Division to address the very matters that are raised by the Pendragon/J.K. Edwards Application. (See Rules 2 and 3, Special Rules and Regulations For The Basin-Fruitland Coal Gas Pool.)

The pool rules for the Basin-Fruitland Coal Gas Pool also provided various remedies for operational problems that might arise, including exceptions to the acreage dedication requirements (Special Rule 4) and commingling (Special Rule 12). Of course, if neither of these solutions is appropriate, Order No. R-8768 also provides for the entry of such further orders "...as the Division may deem necessary." (Order R-8768, decretal paragraph 9.) It is unquestionable, then, that the Division's jurisdiction here is both appropriate and ongoing.

---

[2] Significantly, the Division retained jurisdiction in Case No. 11792

CONCLUSION

The Division should not be misled by the Whiting/Maralex motion. This proceeding does not involve any dispute arising under a contract among the parties; neither is the Division being requested to determine the ownership of mineral rights under an assignment containing depth restrictions. Such arguments are merely in furtherance of Whiting's and Maralex's efforts to avoid the Division's legitimate exercise of its authority under the Oil and Gas Act and under the express provisions of Order R-8768, as amended. Whiting and Maralex have contended that fracture stimulation in and production from the Pictured Cliffs has resulted in interference with production and operations in the Fruitland coal. These are matters that are exclusively within the Division's province. Whiting and Maralex, having once invoked the jurisdiction of the Division on the very subject matter that is the subject of the Pendragon/J.K. Edwards application cannot now argue that the Division is without jurisdiction. The Whiting/Maralex motion should be denied accordingly.

Respectfully submitted,

MILLER, STRATVERT & TORGERSON, P.A.

By J. Scott Hall

J. Scott Hall, Esq.
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Post Office Box 1986
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(505) 989-9614

Certificate of Mailing

I hereby certify that a true and correct copy of the foregoing was mailed to counsel of record on the 22nd day of June, 1998, as follows:

James Bruce, Esq.
P.O. Box 1056
Santa Fe, New Mexico 87504

J. E. Gallegos, Esq.
Gallegos Law Firm, P. C.
460 St. Michaels Dr., #300
Santa Fe, New Mexico 87505-7602

By J. Scott Hall

J. Scott Hall, Esq.

:11996.2DISMISSAPP.DOC

Field File

BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION

APPLICATION OF WHITING PETROLEUM CORPORATION AND MARALEX RESOURCES, INC. FOR AN ORDER SHUTTING-IN CERTAIN WELLS, SAN JUAN COUNTY, NEW MEXICO.

Case No.

APPLICATION

Whiting Petroleum Corporation ("Whiting") and Maralex Resources, Inc. ("Maralex") hereby apply for an order requiring certain wells located in San Juan County, New Mexico to be shut-in, and in support thereof, state:

1. Whiting operates the following wells:

Well Name	Well Unit
(1) Gallegos Fed. 26-12-6 No. 2	W½ §6-26N-12W
(2) Gallegos Fed. 26-12-7 No. 1	W½ §7-26N-12W
(3) Gallegos Fed. 26-13-1 No. 1	E½ §1-26N-13W
(4) Gallegos Fed. 26-13-1 No. 2	W½ §1-26N-13W
(5) Gallegos Fed. 26-13-12 No. 1	N½ §12-26N-13W

The above wells were drilled before the end of 1992, and are completed in and producing from the Basin-Fruitland Coal Gas Pool, as defined in Division Order No. R-8768, as amended. Spacing for each well is 320 acres. Maralex is an interest owner in the wells.

2. Thompson Engineering & Production Corp. ("Thompson") operates the following wells:

Well Name	Well Unit
Stacey No. 1	SE¼ §6-26N-12W
Leslie No. 1	NE¼ §7-26N-12W[1]

[1]This well is at an orthodox location for a Fruitland Coal well, and thus Whiting and Maralex do not seek to have it shut-in. However, applicants believe that it is producing from the Basin-Fruitland Coal Gas Pool, should be recognized as such, and its well spacing unit adjusted accordingly.

EXHIBIT A

Pendragon Energy Partners, Inc. ("Pendragon") operates the following wells:

Well Name	Well Unit
Chaco No. 1	NW¼ §18-26N-12W
Chaco No. 2R	SW¼ §7-26N-12W
Chaco No. 4	NW¼ §7-26N-12W
Chaco No. 5	SE¼ §1-26N-13W
Chaco Ltd. No. 1J	SW¼ §1-26N-13W
Chaco Ltd. No. 2J	NE¼ §1-26N-13W

The Edwards and Pendragon wells are designated as being completed in the WAW Fruitland Sand-Pictured Cliffs Pool, as defined in Division Order No. R-8769, as amended. Spacing for wells completed in the WAW Fruitland Sand-Pictured Cliffs Pool is 160 acres.

3. Ownership in the Basin-Fruitland Coal Pool, in the above sections, differs from ownership in the WAW Fruitland Sand-Pictured Cliffs Pool. Moreover, because of the difference in well spacing, 4 wells may be drilled per section in the WAW Fruitland-Pictured Cliffs Pool, as opposed to 2 wells per section in the Basin-Fruitland Coal Gas Pool.

4. As of 1995-96, each of the above-described Thompson and Pendragon wells was shut-in, was a marginal producer, or had not been drilled. In 1995 and 1996, Thompson and Pendragon drilled or "restimulated" their wells, resulting in the following:

(a) Production from their wells increased, in some cases substantially;

(b) Production from the offsetting Whiting wells has declined or decreased;

(c) The BTU content of the gas decreased so that it is

similar or identical to the BTU content of the Whiting wells;

(d) Water production increased substantially; and

(e) The limited available pressure data shows that pressures increased to levels similar to those found in the Basin-Fruitland Coal Gas Pool in this area.

5. Based on the foregoing, the Thompson and Pendragon wells are communicated with and are producing from the Basin-Fruitland Coal Gas Pool. As a result, the Thompson and Pendragon wells are draining reserves owned by Whiting and its interest owners, and are impairing their correlative rights.

6. In addition, (a) the Stacey Well No. 1, Chaco Well No. 1, Chaco Well No. 4, and Chaco Well No. 5 are at unapproved unorthodox gas well locations in the Basin-Fruitland Coal Gas Pool, (b) all of the Thompson and Pendragon wells, except the Leslie Well No. 1, do not have Division approval for simultaneous dedication in the Basin-Fruitland Coal Gas Pool as required by Division Rule 104.D.(3), or Division Memoranda dated July 27, 1988 and August 3, 1990, and (c) none of the Thompson and Pendragon wells have 320 acres dedicated to them.

7. The Division has the authority and the duty to:

(a) Prevent natural gas from escaping from strata in which it is found into other strata;

(b) require wells to be drilled, operated, and produced in such manner as to prevent injury to neighboring leases or properties; and

(c) to fix the spacing of wells.

NMSA §70-2-12.B.(2), (7), (10) (1995 Repl. Pamp.). Moreover, the Division has the authority to require an operator to submit data to

demonstrate that a well is producing from the appropriate common source of supply. **Order No. R-8768, Special Rules 2, 3.** Therefore, the relief requested herein is proper.

WHEREFORE, Whiting and Maralex request that, after notice and hearing, the Division enter its order:

A. Determining that the Thompson and Pendragon wells, described above, are producing from the Basin-Fruitland Coal Gas Pool;

B. Determining that the Stacey Well No. 1, Chaco Well No. 1, Chaco Well No. 4, Chaco Well No. 5 are at unapproved unorthodox gas well locations in the Basin-Fruitland Coal Gas Pool, and that all wells except the Leslie Well No. 1 do not have approval for simultaneous dedication in the Basin-Fruitland Coal Gas Pool;

C. Ordering the Thompson Stacey Well No. 1 and all of the Pendragon wells to be permanently shut-in; and

D. Granting such further relief as the Division deems proper.

Respectfully submitted,

James Bruce
P.O. Box 1056
Santa Fe, New Mexico 87504
(505) 982-2043

Attorney for Whiting Petroleum Corporation and Maralex Resources, Inc.

BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION

APPLICATION OF WHITING PETROLEUM CORPORATION AND MARALEX RESOURCES, INC. FOR AN ORDER SHUTTING-IN, LIMITING PRODUCTION FROM, OR APPROVING DOWNHOLE COMMINGLING IN, CERTAIN WELLS, SAN JUAN COUNTY, NEW MEXICO.

Case No. 11,921

AMENDED APPLICATION

Whiting Petroleum Corporation ("Whiting") and Maralex Resources, Inc. ("Maralex") hereby apply for an order requiring that certain wells located in San Juan County, New Mexico be shut-in or have their producing rates limited, or in the alternative approving downhole commingling of production and fixing allocation percentages. In support of their application, Whiting and Maralex state:

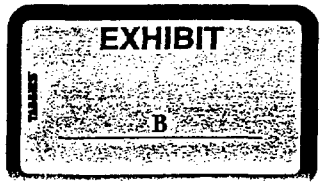
1. Whiting operates the following wells:

Well Name	Well Unit
Gallegos Fed. 26-12-6 No. 2	W½ §6-26N-12W
Gallegos Fed. 26-12-7 No. 1	W½ §7-26N-12W
Gallegos Fed. 26-13-1 No. 1	E½ §1-26N-13W
Gallegos Fed. 26-13-1 No. 2	W½ §1-26N-13W
Gallegos Fed. 26-13-12 No. 1	N½ §12-26N-13W

The above wells were drilled before the end of 1992, and are completed in and producing from the Basin-Fruitland Coal Gas Pool, as defined in Division Order No. R-8768, as amended. Spacing for each well is 320 acres. Maralex is an interest owner in the Whiting-operated wells.

2. Thompson Engineering & Production Corp. ("Thompson") operates the following wells:

Well Name	Well Unit
Stacey No. 1	SE¼ §6-26N-12W



Leslie No. 1 NE¼ §7-26N-12W[1]

Pendragon Energy Partners, Inc. ("Pendragon") operates the following wells:

Well Name	Well Unit
Chaco No. 1	NW¼ §18-26N-12W
Chaco No. 2R	SW¼ §7-26N-12W
Chaco No. 4	NW¼ §7-26N-12W
Chaco No. 5	SE¼ §1-26N-13W
Chaco Ltd. No. 1J	SW¼ §1-26N-13W
Chaco Ltd. No. 2J	NE¼ §1-26N-13W

The Thompson and Pendragon wells are designated as being completed in the WAW Fruitland Sand-Pictured Cliffs Pool, as defined in Division Order No. R-8769, as amended. Spacing for wells completed in the WAW Fruitland Sand-Pictured Cliffs Pool is 160 acres.

3. Ownership in the Basin-Fruitland Coal Gas Pool, in the sections in which the Whiting wells are located, differs from ownership in the WAW Fruitland Sand-Pictured Cliffs Pool. Moreover, because of the difference in well spacing, 4 wells may be drilled per section in the WAW Fruitland-Pictured Cliffs Pool, as opposed to 2 wells per section in the Basin-Fruitland Coal Gas Pool.

4. As of 1995-96, each of the above-described Thompson and Pendragon wells was shut-in, was a marginal producer, or had not been drilled. In 1995 and 1996, Thompson and Pendragon drilled or "restimulated" their wells, resulting in the following:

---

[1]This well is at an orthodox location for a Fruitland Coal well, and thus Whiting and Maralex do not seek to have it shut-in, *etc.* However, applicants believe that the well is producing from the Basin-Fruitland Coal Gas Pool, should be recognized as such, and its spacing and proration unit adjusted accordingly.

(a) Production from the Thompson and Pendragon wells increased, in some cases substantially;

(b) Production from the Whiting-operated wells offsetting the Thompson and Pendragon wells has declined or decreased;

(c) The BTU content of the gas produced from the Thompson and Pendragon wells has decreased so that it is similar or identical to the BTU content of the Whiting wells;

(d) Water production from the Thompson and Pendragon wells has increased substantially; and

(e) The available pressure data shows that pressures in the Thompson and Pendragon wells has increased to levels similar to those found in wells completed in the Basin-Fruitland Coal Gas Pool in this area.

5. Based on the foregoing, the Thompson and Pendragon wells are communicated with and are producing from the Basin-Fruitland Coal Gas Pool. As a result, the Thompson and Pendragon wells are draining reserves owned by Whiting and the other interest owners in its wells, and are impairing their correlative rights.

6. In addition, (a) the Stacey Well No. 1, Chaco Well No. 1, Chaco Well No. 4, and Chaco Well No. 5 are at unapproved unorthodox gas well locations in the Basin-Fruitland Coal Gas Pool, (b) all of the Thompson and Pendragon wells, except the Leslie Well No. 1, do not have Division approval for simultaneous dedication in the Basin-Fruitland Coal Gas Pool as required by Division Rule 104.D.(3) or Division Memoranda dated July 27, 1988 and August 3, 1990, and (c) none of the Thompson and Pendragon wells have 320

acres dedicated to them.

7. The Division has the authority and the duty to:

(a) Prevent natural gas from escaping from strata in which it is found into other strata;

(b) require wells to be drilled, operated, and produced in such manner as to prevent injury to neighboring leases or properties; and

(c) to fix the spacing of wells.

NMSA 1978 §70-2-12.B.(2), (7), (10) (1995 Repl. Pamp.). Moreover, the Division has the authority to require an operator to submit data to demonstrate that a well is producing from the appropriate common source of supply, and to order the downhole commingling of Fruitland Coal and Pictured Cliffs production. **Order No. R-8768, Special Rules 2, 3, 12**. Therefore, the relief requested herein is proper.

WHEREFORE, Whiting and Maralex request that, after notice and hearing, the Division enter its order:

A. Determining that the Thompson and Pendragon wells, described above, are producing from the Basin-Fruitland Coal Gas Pool;

B. Determining that the Stacey Well No. 1, Chaco Well No. 1, Chaco Well No. 4, and Chaco Well No. 5 are at unapproved unorthodox gas well locations in the Basin-Fruitland Coal Gas Pool, and that all wells except the Leslie Well No. 1 do not have approval for simultaneous dedication in the Basin-Fruitland Coal Gas Pool;

C. Ordering the Thompson Stacey Well No. 1, and all of the Pendragon wells, to be permanently shut-in or have their production restricted, or in the alternative approve downhole commingling of Fruitland Coal and Pictured Cliffs/Fruitland Sand production from the Thompson and Pendragon wells and allocating production from each pool; and

D. Granting such further relief as the Division deems proper.

Respectfully submitted,

James Bruce
P.O. Box 1056
Santa Fe, New Mexico 87504
(505) 982-2043

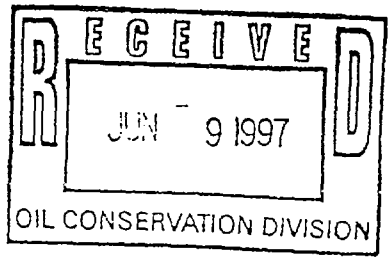
Attorney for Whiting Petroleum Corporation and Maralex Resources, Inc.

CERTIFICATE OF SERVICE

I hereby certify that a copy of the foregoing Amended Application was mailed this 10th day of February, 1998 to J. Scott Hall, Miller, Stratvert & Torgerson, P.A., P.O. Box 1986, Santa Fe, New Mexico 87504.

James Bruce

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION



IN THE MATTER OF THE HEARING
CALLED BY THE OIL CONSERVATION
DIVISION FOR THE PURPOSE OF
CONSIDERING:

CASE NO. 6987
CASE NO. 11792

AMENDED APPLICATION OF DOYLE HARTMAN
TO GIVE FULL FORCE AND EFFECT TO
COMMISSION ORDER R-6447, TO REVOKE
OR MODIFY ORDER 4-4680-A, TO
ALTERNATIVELY TERMINATE THE
MYERS LANGLIE-MATTIX UNIT,
LEA COUNTY, NEW MEXICO

HARTMAN'S RESPONSE IN OPPOSITION TO OXY'S MOTION TO DISMISS

Applicant Doyle Hartman, Oil Operator ("Hartman") hereby files this Response in Opposition to the Motion to Dismiss filed by Oxy USA, Inc. ("Oxy"). As Hartman will demonstrate, there is no factual or legal basis for Oxy's Motion.

I.

INTRODUCTION

Hartman filed an Application in this matter on April 28, 1997. An Amended Application was subsequently filed May 8, 1997. By this proceeding, Hartman seeks entry of an Order (a) enforcing the New Mexico Oil Conservation Commission ("NMOCC") Order R-6447,[1] (b) recognizing that the operation of the Myers

[1] The misrepresentations in Oxy's Motion to Dismiss begin with a gross mischaracterization of Hartman's position. Hartman does not "complain about Order R-6447." Motion to Dismiss, p. 1. Instead, Hartman seeks enforcement of the Order and all of its terms against Oxy.

whom would not. Aside from the fact that this theory circumvents mandatory statutory provisions, it makes absolutely no sense in the administrative practice of the unit.

POINT TWO

OXY'S LAWSUIT IS A COLLATERAL ATTACK ON ORDER R-6447

NMOCC Order No. R-6447 is entitled to preclusive effect. Amoco Production Company v. Heimann, 904 F.2d 1405 (10th Cir. 1990), cert. denied, 498 U.S. 942 (1990). Unitization orders made by the NMOCC must remain inviolate to collateral attack. Id. Oxy has filed suit against Hartman to recover joint interest billings associated with the 1994 Redevelopment Program to which Hartman timely objected and voiced his desire to go non-consent.

The NMOCC expressly retained jurisdiction in Order R-6447 for the entry of such further orders as the NMOCC may deem necessary. The New Mexico Legislature has expressly vested the NMOCD and NMOCC with jurisdiction, power and authority to make and enforce such orders and to do such things as may be necessary or proper to carry out and effectuate the purposes of the Statutory Unitization Act. NMSA 1978, § 70-7-3.

Questions about the operation of the MLMU subject to the Statutory Unitization Act are within the primary jurisdiction of the NMOCC and the NMOCD, who have not just the authority, but a statutory mandate to insure the legal operation of units subject to the Act. Here, the undisputed evidence demonstrates that Oxy has violated Order R-6447 by its ongoing refusal to recognize the right of MLMU working interest owners to go non-consent with respect to unit operations. This body has every right to

view the facts presented by this Application and enter an order confirming for the benefit of Oxy and all working interest owners in the MLMU the nature, effect, and meaning of the express terms of its Order. Amarex v. Baker, 655 P.2d 1040 (Okla. 1973) (petition to Corporation Commission to interpret or construe its own order is not a collateral attack).

POINT THREE

THIS APPLICATION IS PROPER UNDER NMOCC'S AND NMOCD'S CONTINUING JURISDICTION

In Order R-6447 and Order R-4680-A, the NMOCC and NMOCD both retained jurisdiction for the entry of such further orders as may be necessary. As this case demonstrates, changes in circumstance and factual developments often occur after the date of entry of an Order which require subsequent action by an administrative agency after entry of an order. That is the very purpose for including the retained jurisdiction provision in the orders. Oxy's Motion to Dismiss seeks to deprive the NMOCC and the NMOCD of its continuing jurisdiction.

Under the jurisdiction vested by Section 70-7-3 and given the express retention of jurisdiction by Orders R-6447 and R-4680-A, the NMOCC and NMOCD are entitled to consider all matters presented by this Application. Those questions include whether Oxy's operation of the MLMU is inconsistent with the Statutory Unitization Act, whether Oxy has violated Order R-6447 and the Act in its operation of the MLMU, whether changed circumstances in the form of the failed 1994 Redevelopment Program justify termination or substantial modification of the operation of the MLMU, and whether Oxy's operation of the MLMU has caused a water out of zone problem. These

ıes involve changed circumstances developed or discovered since the entry of the orders. Changed conditions are sufficient to justify review of a previously issued order, and such review does not constitute a collateral attack on the order. Wood Oil Company v. Corporation Commission, 205 Okla. 534, 239 P.2d 1021 (1950); Railroad Commission of Texas v. Aluminum Co. of America, 380 S.W.2d 599 (1964).

Oxy is the unilateral cause of the problems and conflicts at issue in this Application. In filing its Application in Case No. 11168, Oxy failed to apprise the NMOCD of the existence and effect of Order R-6447. Consequently, the NMOCD considered and granted Oxy's application as if the provisions of the Statutory Unitization Act did not apply, and on the assumption that Oxy did not need to make the necessary showing in support of the application which sought an amendment to the ı of unit operations. NMSA 1978 § 70-7-9. Having unilaterally caused the problem at issue by its failure to recognize the existence of Order R-6447, Oxy cannot be heard to complain that the NMOCC and the NMOCD are without jurisdiction to remedy the problem.

Oxy's complaint about the timing of Hartman's application and his objections to Oxy's conduct is particularly inappropriate. Hartman elected to go non-consent with respect to unit operations in August, 1994, but Oxy has denied that Hartman has that right. Hartman has not paid his share of joint interest billings since that time, and has maintained all revenues from his share of crude oil from the MLMU in a segregated account because Oxy has refused to recognize his right to go non-consent and has refused to take his share of proceeds as provided by Order R-6447. Oxy did not, however, institute its lawsuit against Hartman in violation of Order R-6447

March, 1997, almost three (3) years after Hartman elected to go non-consent and stopped paying MLMU invoices submitted by Oxy. Under the circumstances, there was no reason for Hartman to file this Application until Oxy demonstrated its intent to collaterally attack Order R-6447 by filing suit against Hartman. Once Oxy determined to undertake such a course of action, Hartman immediately and in a timely manner sought relief in the form of this Application regarding all issues arising from Oxy's failure to recognize and give full force and effect to the terms of Order R-6447, as well as issues relating to whether Oxy's operation of the MLMU has caused waste and failed to protect the correlative rights of working interest owners in the MLMU.

Obviously, Hartman did not have evidence supporting his contention that the 1994 Redevelopment Program was a financial failure until the program was given a ...nt opportunity to play out to demonstrate its ineffectiveness. The facts supporting Hartman's contention will be presented at hearing, at which time Oxy will have *ample opportunity to present any evidence it can muster to support the financial* integrity of the program. These matters involve changed circumstances since the entry of Order R-4680-A, and which could not have been presented in 1994.

The NMOCD and the NMOCC clearly have continuing jurisdiction to monitor surface injection pressure authorizations for the MLMU. Hartman did not discover evidence demonstrating water out of zone as a result of MLMU operations until November, 1996, when he attempted to rework the Myers "B" Federal No. 30 ("Myers") well in Section 5, T-24-S, R-37-E, which lies within the exterior surface boundaries of the MLMU. During the re-entry of the Myers well, Hartman encountered large quantities of water in the gas productive Yates Formation, where water is <u>not</u> naturally occurring in

th rea. This evidence strongly suggests that the operation of the MLMU, including excessive surface injection pressures, has caused a water out of zone problem, which the NMOCD and the NMOCC have the power and duty to investigate.

POINT FOUR

THE NMOCD AND NMOCC HAVE AUTHORITY TO REVIEW AN ORDER IMPROPERLY ENTERED

Hartman's Application and Amended Application have documented numerous procedural and due process problems which attended the entry of Order R-4680-A. Oxy largely ignores these problems, except to argue that Hartman had notice with respect to the 1,800 psi surface injection pressure authorization request that was buried in documents attached to a C-108 form. Oxy does not explain why the request was not set out in the application itself, why no evidence was introduced at the hearing to support the authorization, or how the 1,800 psi surface injection pressure authorization came to be embodied in Order R-4680-A.

Again, Oxy seeks to preclude review by the NMOCC and the NMOCD of the numerous procedural defects that attended the entry of Order R-4680-A. However, Oxy is the cause of the problem. Had Oxy notified the NMOCD and working interest owners in its Application in Case No. 11168 of the existence of Order R-6447, had it provided sufficient notice to the working interest owners of its request for an excessive surface injection pressure, and had it complied with the provisions of Section 70-7-9 in its request for amend unit operations by its 1994 Application, all affected parties would have had sufficient notice of the issues posed by Oxy's Application. Oxy failed to do so. Under the circumstances, Order R-4680-A should be vacated and held to be void

idable. Uhden v. New Mexico Oil Conservation Commission, 112 N.M. 528, 817 P.2d 721 (1991).

IV.

CONCLUSION

Based upon the foregoing facts and authorities, Hartman respectfully requests that Oxy's Motion to Dismiss be denied in its entirety, and that Oxy's Application and Amended Application be scheduled for hearing before the full NMOCC at the presently scheduled special hearing set for June 30 - July 2, 1997. Because Oxy's Motion to Stay Discovery is based solely on its Motion to Dismiss, which has been shown to be meritless, that Motion should also be denied.

Respectfully submitted,

GALLEGOS LAW FIRM, P.C.

By _____
J.E. GALLEGOS
MICHAEL J. CONDON
460 St. Michael's Drive, Bldg. 300
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(505) 983-6686

CERTIFICATE OF SERVICE

I hereby certify that I have caused a true and correct copy of Hartman's Response in Opposition to Oxy's Motion to Dismiss to be hand-delivered on this 9th day of June, 1997 to the following counsel of record:

William F. Carr
Campbell, Carr, Berge & Sheridan
110 N. Guadalupe, Suite 1
Santa Fe, New Mexico 87501

(CEDAR HILL-FRUITLAND BASAL COAL GAS (VERTICAL LIMITS EXTENSIONS) POOL - Cont'd.)

further defined and described as having vertical limits consistent within the vertical extension of the Cedar Hill-Fruitland Basal Coal Pool.

(3) Rule 1 of said Division Order No. R-7588, as amended is hereby suspended and shall be replaced with the following:

RULE 1. (A) Each well completed or recompleted in the Cedar Hill-Fruitland Basal Coal Pool shall be spaced, drilled, operated and prorated in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 1. (B) A Cedar Hill-Fruitland Basal Coal Pool well will be defined as one which meets a preponderance of the generally characterized coalbed methane criteria as derived from:

(a) Wireline log data:
(b) Drilling time;
(c) Drill cutting;
(d) Mud logs;
(e) Completion data;
(f) Gas analysis;
(g) Water analysis;
(h) Reservoir performance;
(i) Any other evidence that indicates the production is predominantly coal methane.

No one characteristic of lithology, performance or sampling will either qualify or disqualify a well from being classified as a coal gas well. Absent any finding to the contrary, any well completed in accordance with these rules that has met a preponderance of the criteria for determining a coal well is therefrom presumed to be completed in and producing from the Cedar Hill-Fruitland Basal Coal Pool. The District Supervisor may, at his discretion, require that an operator document said determination of the appropriate pool or require an order under the provisions of General Rule 303(c) authorizing the commingling of pools in the event a coal well fails to meet the criteria for a coal well as set forth in this rule.

IT IS FURTHER ORDERED THAT:

(4) Any well drilling to or completed in a coal member of the Fruitland formation within this vertical extension of the Cedar Hill-Fruitland Basal Coal Pool on or before November 1, 1988 that will not comply with the well location requirements of Rule 4 is hereby granted an exception to the requirements of said rule. The operator of any such well shall notify the Aztec District Office of the Division, in writing, of the name and location of any such well on or before January 1, 1989.

(5) Applicant's request to authorize downhole commingling of Fruitland Sandstone Gas and Fruitland Coal Gas at the District Office level of the Division is hereby denied.

(6) This case shall be reopened at an examiner hearing in October, 1990, at which time the operators in the subject pool may appear and show cause why the vertical extension of the Cedar Hill-Fruitland Basal Coal Pool should not be rescinded and Division Order No. R-7588, as amended, should not be reinstituted as they existed prior to the issuance of this order.

(7) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

BASIN-FRUITLAND COAL GAS POOL
San Juan, Rio Arriba, McKinley and Sandoval Counties, New Mexico

Order No. 8768, Creating and Adopting Temporary Operating Rules for the Basin-Fruitland Coal Pool, San Juan, Rio Arriba, McKinley and Sandoval Counties, New Mexico, November 1, 1988, as Amended by Order No. R-8768-A, July 16, 1991.

In the Matter of the Hearing called by the Oil Conservation Division (OCD) on its own Motion for Pool Creation and Special Pool Rules, San Juan, Rio Arriba, McKinley and Sandoval Counties, New Mexico.

CASE NO. 9420
Order No. R-8768

ORDER OF THE DIVISION

BY THE DIVISION: This Cause came on for hearing at 8:30 a.m. on July 6, 1988, at Farmington, New Mexico, before Examiner David R. Catanach.

NOW, on this 17th day of October, 1988, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

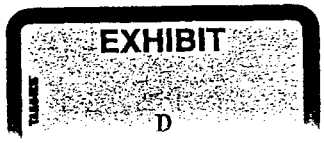
(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) Division Case Nos. 9420 and 9421 were consolidated at the time of the hearing for the purpose of testimony.

(3) The Oil Conservation Division, hereinafter referred to as the "Division", on the recommendations of the Fruitland Coalbed Methane Committee, hereinafter referred to as the "Committee", seeks the creation of a new pool for the production of gas from coal seams within the Fruitland formation underlying the following described area in San Juan, Rio Arriba, McKinley, and Sandoval Counties, New Mexico:

Township 19 North, Ranges 1 West through 6 West;
Township 20 North, Ranges 1 West through 8 West;
Township 21 North, Ranges 1 West through 9 West;
Township 22 North, Ranges 1 West through 11 West;
Township 23 North, Ranges 1 West through 14 West;
Township 24 North, Ranges 1 East through 16 West;
Township 25 North, Ranges 1 East through 16 West;
Township 26 North, Ranges 1 East through 16 West;
Township 27 North, Ranges 1 West through 16 West;
Township 28 North, Ranges 1 West through 16 West;
Township 29 North, Ranges 1 West through 15 West;
Township 30 North, Ranges 1 West through 15 West;
Township 31 North, Ranges 1 West through 15 West;
Township 32 North, Ranges 1 West through 13 West;

(4) The Division further seeks, also upon the recommendations of the Committee, the promulgation of special pool rules, regulations, and operating procedures for said pool including, but not limited to, provisions for 320-acre spacing and proration units, designated well locations, well density, horizontal wellbore and deviated drilling procedures, venting and flaring rules, downhole commingling, and gas well testing requirements.



N-FRUITLAND COAL GAS POOL - Cont'd.)

(5) In companion Case No. 9421, the Division seeks to contract the vertical limits of twenty-six existing Fruitland and/or Fruitland-Pictured Cliffs Gas Pools to include only the Pictured Cliffs sandstone and/or Fruitland sandstone intervals.

(6) The Committee, which included representatives of the oil and gas industry, New Mexico Oil Conservation Division, Colorado Oil and Gas Conservation Commission, Bureau of Land Management, and Southern Ute Indian Tribe, was originally formed in 1986 for the purpose of studying and making recommendations to the Division as to the most orderly and efficient methods of developing coal seam gas within the Fruitland formation.

(7) Geologic evidence presented by the Committee indicates that the Fruitland formation, which is found within the geographic area described above, is composed of alternating layers of shales, sandstones, and coal seams.

(8) The evidence at this time further indicates that the coal seams within the Fruitland formation are potentially productive of natural gas in substantial quantities.

(9) The gas originating from the coal seams within the Fruitland formation is composed predominantly of methane and carbon dioxide and varies significantly from the composition of the gas currently being produced from the sandstone intervals, and as such, represents a separate common source of supply.

(10) A new pool for gas production from coal seams within the Fruitland formation should be created and designated the Basin-Fruitland Coal Gas Pool with vertical limits comprising all coal seams within the equivalent of the stratigraphic interval from a depth of approximately 2450 feet to 2880 feet as shown on the Gamma Ray/Bulk Density log from Amoco Production Company's Schneider Gas Com "B" Well No. 1 located 1110 feet from the South line and 1185 feet from the West line of Section 7, Township 32 North, Range 10 West, NMPM, San Juan County, New Mexico.

(11) The proposed horizontal pool boundary, which represents the geographic area encompassed by the Fruitland formation, contains within it, an area previously defined as the Cedar Hill-Fruitland Basal Coal Gas Pool (created by Division Order No. R-7588 effective February 1, 1984); said area currently comprises Sections 3 through 6 of Township 31 North, Range 10 West, and Sections 19 through 22 and 27 through 34 of Township 32 North, Range 10 West, NMPM, San Juan County, New Mexico.

(12) The proposed horizontal boundary of the Basin-Fruitland Coal Gas Pool should be amended to exclude that acreage currently defined as the Cedar Hill-Fruitland Coal Gas Pool described in Finding No. (11) above.

(13) The Committee has recommended the promulgation of special rules and regulations for the Basin-Fruitland Coal Gas Pool including a provision for 320-acre spacing and proration units, and in support thereof presented pressure interference data obtained from producing and pressure observation wells located within the Cedar Hill-Fruitland Coal Gas Pool, which indicates definite pressure communication between wells located 2,180 feet apart (radius of drainage of a 320-acre proration unit = 2,106 feet).

(14) Further testimony and evidence indicates that due to the unique producing characteristics of coal seams (i.e. initial inclining production rates), engineering methods such as decline curve analysis and volumetric calculations traditionally used to aid in the determination of proper well spacing, cannot be utilized.

(15) The Committee further recommended the adoption of a provision in the proposed pool rules allowing for the drilling of a second well on a standard 320-acre proration unit in order to an operator flexibility when addressing regional geological s.

(16) Dugan Production Corporation, Merrion Oil and Gas Corporation, Hixon Development Company, Robert L. Bayless, and Jerome P. McHugh and Associates, hereinafter referred to as the "Dugan Group", appeared at the hearing and presented geologic and engineering evidence and testimony in support of a proposal which includes the following:

1. Establishment of an area within the Southern portion of the Basin-Fruitland Coal Gas Pool to be developed on 160-acre spacing and proration units.

2. Creation of a demarcation line and buffer zone separating the 320-acre spacing portion of the pool and the proposed 160-acre spacing portion of the pool.

(17) The Dugan Group owns oil and gas leasehold operating rights in the Fruitland formation in various areas of the San Juan Basin, and currently operates numerous wells producing from coal seams and sandstone intervals within the Fruitland formation.

(18) The Dugan Group has defined the location of the proposed demarcation line and 160-acre spacing area by utilizing a preponderance of geologic factors such as coal rank, depth of burial, thermal maturation, thickness of coal, and amount of gas in place.

(19) In support of the proposed 160-acre spacing area for the subject pool, the Dugan Group presented production data obtained from four producing wells, the Nassau Well Nos. 5, 6, 7 and 8 located in Section 36, Township 27 North, Range 12 West, NMPM, San Juan County, New Mexico, which indicates that the production rate from said Nassau Well No. 5 was unaffected by initiation of 160-acre offset production in said Nassau Well Nos. 6, 7, and 8.

(20) The evidence presented by the Dugan Group further indicates however, that the Nassau Well Nos. 5, 6, 7, and 8 are producing from commingled coal seam and sandstone intervals within the Fruitland formation, and as such, do not conclusively demonstrate 160-acre non-interference exclusively within the coal seams.

(21) Insufficient evidence exists at the current time to justify the creation of a 160-acre spacing area and demarcation line within the Basin-Fruitland Coal Gas Pool.

(22) The best technical evidence available at this time indicates that 320-acre well spacing is the optimum spacing for the entire Basin-Fruitland Coal Gas Pool.

(23) In order to prevent the economic loss caused by the drilling of unnecessary wells, avoid the augmentation of risk arising from the drilling of an excessive number of wells, prevent reduced recovery which might result from the drilling of too few wells, and to otherwise protect correlative rights, special rules and regulations providing for 320-acre spacing units should be promulgated for the Basin-Fruitland Coal Gas Pool.

(24) The special rules and regulations should also provide for restrictive well locations in order to assure orderly development of the subject pool and protect correlative rights.

(25) Due to the relatively large area encompassed by the Basin-Fruitland Coal Gas Pool, and the relatively small amount of reservoir data currently available, the special rules and regulations should be promulgated for a temporary period of two years in order to allow the operators in the subject pool the opportunity to gather additional reservoir data relative to the determination of permanent spacing rules for the subject pool and/or specific areas within the pool.

(26) The evidence and testimony presented at the hearing is insufficient to approve at the present time, the proposed provision allowing for the drilling of a second well on a standard 320-acre proration unit.

BASIN-FRUITLAND COAL GAS POOL - Cont'd.)

(27) The Committee further recommended the adoption of a provision in the Special Rules and Regulations allowing the venting or flaring of gas from a Basin-Fruitland Coal Gas well during initial testing in an amount not to exceed a cumulative volume of 50 MMCF or a period not to exceed 30 days.

(28) The evidence presented does not justify the establishment of a specific permissible volume of gas to be vented or flared from Basin-Fruitland Coal Gas Wells at this time, however, the supervisor of the Aztec district office of the Division should have the authority to allow such venting or flaring of gas from a well upon a demonstration such flaring or venting is justified and upon written application from the operator.

(29) Evidence and testimony presented at the hearing indicates that the gas well testing requirements as contained in Division Order No. R-333-I may cause damage to a Basin Fruitland Coal Gas Well, and that special testing procedures should be established.

(30) The special rules and regulations promulgated herein should include operating procedures for determination and classification of Basin-Fruitland Coal Gas Wells, horizontal wellbore and deviated drilling procedures, and procedures and guidelines for downhole commingling.

(31) This case should be reopened at an examiner hearing in October, 1990, at which time the operators in the subject pool should be prepared to appear and present evidence and testimony relative to the determination of permanent rules and regulations for the Basin-Fruitland Coal Gas Pool.

IT IS THEREFORE ORDERED THAT:

(1) Effective November 1, 1988, a new pool in all or parts of San Juan, Rio Arriba, McKinley and Sandoval Counties, New Mexico, classified as a gas pool for production from Fruitland coal seams, is hereby created and designated the Basin-Fruitland Coal Gas Pool, with vertical limits comprising all coal seams within the equivalent of the stratigraphic interval from a depth of approximately 2450 feet to 2880 feet as shown on the Gamma Ray/Bulk Density log from Amoco Production Company's Schneider Gas Com "B" Well No. 1 located 1110 feet from the South line and 1185 feet from the West line of Section 28, Township 32 North, Range 10 West, NMPM, San Juan County, New Mexico.

(2) The horizontal limits of the Basin-Fruitland Coal Gas Pool shall comprise the following described area in all or portions of San Juan, Rio Arriba, McKinley and Sandoval Counties, New Mexico, with the exception of Section 3 through 6 of Township 31 North, Range 10 West, and Section 19 through 22, and 27 through 34 of Township 32 North, Range 10 West, San Juan County, New Mexico, which said acreage currently comprises the Cedar Hill-Fruitland Basal Coal Gas Pool:

Township 19 North, Ranges 1 West through 6 West;
Township 20 North, Ranges 1 West through 8 West;
Township 21 North, Ranges 1 West through 9 West;
Township 22 North, Ranges 1 West through 11 West;
Township 23 North, Ranges 1 West through 14 West;
Township 24 North, Ranges 1 East through 16 West;
Township 25 North, Ranges 1 East through 16 West;
Township 26 North, Ranges 1 East through 16 West;
Township 27 North, Ranges 1 West through 16 West;
Township 28 North, Ranges 1 West through 16 West;
Township 29 North, Ranges 1 West through 15 West;
Township 30 North, Ranges 1 West through 15 West;
Township 31 North, Ranges 1 West through 15 West;
Township 32 North, Ranges 1 West through 13 West;

(3) Temporary Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool are hereby promulgated as follows:

SPECIAL RULES AND REGULATIONS FOR THE BASIN-FRUITLAND COAL GAS POOL

RULE 1. Each well completed or recompleted in the Basin-Fruitland Coal Gas Pool shall be spaced, drilled, operated, and produced in accordance with the Special Rules and Regulations hereinafter set forth.

RULE 2. A gas well within the Basin-Fruitland Coal Gas Pool shall be defined by the Division Director as a well that is producing from the Fruitland coal seams as demonstrated by a preponderance of data which could include the following:

a. Electric Log Data
b. Drilling Time
c. Drill Cuttings of Log Cores
d. Mud Logs
e. Completion Data
f. Gas Analysis
g. Water Analysis
h. Reservoir Performance
i. Other evidence which may be utilized in making such determination.

RULE 3. (As Amended by Order No. R-8768-A, July 16, 1991) The Division Director may require the operator of a proposed or existing Basin-Fruitland Coal Gas well, Fruitland Sandstone well, or Pictured Cliffs Sandstone well, to submit certain data as described in Rule (2) above, which would not otherwise be required by Division Rules and Regulations, in order to demonstrate to the satisfaction of the Division that said well will be or is currently producing from the appropriate common source of supply. The confirmation that a well is producing exclusively from the Basin-Fruitland Coal Gas Pool shall consist of approval of Division Form C-104, provided however that such approval shall be for Division purposes only, and shall not preclude any other governmental jurisdictional agency from making its own determination of production origination utilizing its own criteria.

RULE 4. (As Amended by Order No. R-8768-A, July 16, 1991) Each well completed or recompleted in the Basin-Fruitland Coal Gas Pool shall be located on a standard unit containing 320 acres, more or less, comprising any two contiguous quarter sections of a single governmental section, being a legal subdivision of the United States Public Lands Survey.

Individual operators may apply to the Division for an exception to the requirements of Rule No. (4) to allow the drilling of a second well on standard 320-acre units or on approved non-standard units in specifically defined areas of the pool provided that:

(a) Any such application shall be set for hearing before a Division Examiner;

(b) Actual notice of such application shall be given to operators of Basin-Fruitland Coal Gas Pool wells, working interest owners of undrilled leases, and unleased mineral owners within the boundaries of the area for which the infill provision is requested, and to all operators of Basin-Fruitland Coal Gas Pool wells within one mile of such area, provided however any operator in the pool or other interested party may appear and participate in such hearing.

Such notice shall be sent certified or registered mail or by overnight express with certificate of delivery and shall be given at least 20 days prior to the date of the hearing.

RULE 5. (As Amended by Order No. R-8768-A, July 16, 1991) The Supervisor of the Aztec district office of the Division shall have the authority to approve a non-standard gas proration unit within the Basin-Fruitland Coal Gas Pool without notice and hearing when the unorthodox size or shape is necessitated by a variation in the legal subdivision of the United States Public Lands Survey and/or consists of an entire governmental section and the non-standard unit in not less than 70% nor more than 130% of a standard gas proration unit. Such approval shall consist of acceptance of Division Form C-102 showing the proposed non-standard unit and the acreage contained therein.

IN-FRUITLAND COAL GAS POOL - Cont'd.)

RULE 6. (As Amended by Order No. R-8768-A, July 16, 1991) The Division Director may grant an exception to the requirements of Rule (4) when the unorthodox size or shape of the gas proration unit is necessitated by a variation in the legal subdivision of the United States Public Lands Survey and the non-standard gas proration unit is less than 70% or more than 130% of a standard gas proration unit, or where the following facts exist and the following provisions are complied with:

(a) the non-standard unit consists of quarter-quarter sections or lots that are contiguous by a common bordering side.

(b) The non-standard unit lies wholly within a governmental half section, except as provided in paragraph (c) following.

(c) The non-standard unit conforms to a previously approved Blanco-Mesaverde or Basin-Dakota Gas Pool non-standard unit as evidenced by applicant's reference to the Division's order number creating said unit.

(d) The applicant presents written consent in the form of waivers from all offset operators or owners of undrilled tracts and from all operators owning interests in the half section in which the non-standard unit is situated and which acreage is not included in said non-standard unit.

(e) In lieu of paragraph (d) of this rule, the applicant may furnish proof of the fact that all of the aforesaid parties were notified by certified or registered mail or overnight express mail with certificate of delivery of his intent to form such non-standard unit. The Division Director may approve the application if no such party has entered an objection to the formation of such non-standard unit within 30 days after the Division Director has received the application.

(f) The Division Director, at his discretion, may set any application under Rule (6) for public hearing.

RULE 7. The first well drilled or recompleted on every standard or non-standard unit in the Basin-Fruitland Coal Gas Pool shall be located in the NE/4 or SW/4 of a single governmental section and shall be located no closer than 790 feet to any outer boundary of the proration unit nor closer than 130 feet to any quarter section line nor closer than 10 feet to any quarter-quarter section line or subdivision inner boundary.

RULE 8. The Division Director may grant an exception to the requirements of Rule (7) without hearing when an application has been filed for an unorthodox location necessitated by topographical conditions, the recompletion of a well previously drilled to a deeper horizon, provided said well was drilled at an orthodox or approved unorthodox location for such original horizon, or the drilling of an intentionally deviated horizontal wellbore. All operators or owners of undrilled tracts offsetting the proposed location shall be notified of the application by registered or certified mail, and the applicant shall state that such notice has been furnished. The Director may approve the application upon receipt of written waivers from all parties described above or if no objections to the unorthodox location has been entered within 20 days after the Director has received the application.

RULE 9(A). The Division Director shall have the authority to administratively approve an intentionally deviated well in the Basin-Fruitland Coal Gas Pool for the purpose of penetrating the coalbed seams by means of a wellbore drilled horizontally, provided the following conditions are complied with:

(1) the surface location of the proposed well is a standard location or the applicant has obtained approval of an unorthodox surface location as provided for in Rule (8) above.

(2) The bore hole shall not enter or exit the coalbed seams outside of a drilling window which is in accordance with the setback requirements of Rule (7), provided however, that the 10 foot setback distance requirement from the quarter-quarter section line or subdivision inner boundary shall not apply to horizontally drilled wells.

(B) To obtain administrative approval to drill an intentionally deviated horizontal wellbore, the applicant shall file such application with the Santa Fe and Aztec offices of the Division and shall further provide a copy of such application to all operators or owners of undrilled tracts offsetting the proposed gas proration unit for said well by registered or certified mail, and the application shall state that such notice has been furnished. The application shall further include the following information:

(1) A copy of Division Form C-102 identifying the proposed proration unit to be dedicated to the well.

(2) Schematic drawings of the proposed well which fully describe the casing, tubing, perforated or open hole interval, kick-off point, and proposed trajectory of the drainhole section.

The Director may approve the application upon receipt of written waivers from all parties described above or if no objection to the intentionally deviated horizontal wellbore has been entered within 20 days after the Director has received the application. If any objection to the proposed intentionally deviated horizontal well is received within the prescribed time limit as described above, the Director shall, at the applicant's request, set said application for public hearing.

(C) During or upon completion of drilling operations the operator shall further be required to conduct a directional survey on the vertical and lateral portions of the wellbore and shall submit a copy of said survey to the Santa Fe and Aztec Offices of the Division.

(D) The Division Director, at his discretion, may set any application for intentionally deviated horizontal wellbores for public hearing.

RULE 10. Notwithstanding the provisions of Division Rule No. 404, the Supervisor of the Aztec district office of the Division shall have the authority to approve the venting or flaring of gas from a Basin-Fruitland Coal Gas Well upon a determination that said venting or flaring is necessary during completion operations, to obtain necessary well test information, or to maintain the producibility of said well. Application to flare or vent gas shall be made in writing to the Aztec district office of the Division.

RULE 11. Testing requirements for a Basin-Fruitland Coal Gas well hereinafter set forth may be used in lieu of the testing requirements contained in Division Order No. R-333-I. The test shall consist of a minimum twenty-four hour shut-in period, and a three hour production test. The Division Director shall have the authority to modify the testing requirements contained herein upon a showing of need for such modification. The following information from this initial production test must be reported:

1. The surface shut-in tubing and/or casing pressure and date these pressures were recorded.

2. The length of the shut-in period.

3. The final flowing casing and flowing tubing pressures and the duration and date of the flow period.

4. The individual fluid flow rate of gas, water, and oil which must be determined by the use of a separator and measurement facilities approved by the Supervisor of the Aztec district office of the Division; and

(BASIN-FRUITLAND COAL GAS POOL - Cont'd.)

5. The method of production, e.g. flowing, pumping, etc. and disposition of gas.

RULE 12. The Division Director shall have the authority to approve the commingling within the wellbore of gas produced from coal seams and sandstone intervals within the Fruitland and/or Pictured Cliffs formations where a finding has been made that a well is not producing entirely from either coal seams or sandstone intervals as determined by the Division. All such applications shall be submitted to the Santa Fe office of the Division and shall contain all the necessary information as described in General Rule 303 (C) of the Division Rules and Regulations, and shall meet the prerequisites described in 303 (C) (1) (b). In addition, the Division Director may require the submittal of additional well data as may be required to process such application.

RULE 13. The Division Director may approve the commingling within the wellbore of gas produced from coal seams and sandstone intervals within the Fruitland and/or Pictured Cliffs formations where a well does not meet the prerequisites as described in General Rule 303 (C) (1) (b) provided that such commingling had been accomplished prior to July 1, 1988, and provided further that the application is filed as described in Rule (12).

IT IS FURTHER ORDERED THAT:

(4) The locations of all wells presently drilling to, completed in, commingled in, or having an approved APD for the Basin-Fruitland Coal Gas Pool are hereby approved; the operator of any well having an unorthodox location shall notify the Aztec district office of the Division in writing of the name and location of the well within 30 days from the date of this order.

(5) Pursuant to Paragraph A. of Section 70-2-18, N.M.S.A. 1978, Comp., contained in Laws of 1969, Chapter 271, existing gas wells in the Basin-Fruitland Coal Gas Pool shall have dedicated thereto 320 acres in accordance with the foregoing pool rules; or pursuant to Paragraph C. of said Section 70-2-18, existing wells may have non-standard spacing and proration units established by the Division and dedicated thereto.

(6) In accordance with (5) above, the operator shall file a new Form C-102 dedicating 320 acres to the well or shall obtain a non-standard unit approved by the Division. The operator shall also file a new C-104 with the Aztec district office of the Division.

(7) Failure to comply with Paragraphs (5) and (6) above within 60 days of the date of this order shall subject the well to a shut-in order until such requirements have been met.

(8) This case shall be reopened at an examiner hearing in October, 1990 at which time the operators in the subject pool may appear and present evidence and testimony relative to the determination of permanent rules and regulations for the Basin-Fruitland Coal Gas Pool.

(9) Jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

VADA-DEVONIAN POOL
Lea County, New Mexico

Order No. R-8770, Adopting Temporary Operating Rules for the Vada-Devonian Pool, Lea County, New Mexico, October 26, 1988.

Order No. R-8770-A, May 30, 1990, rescinds the temporary operating rules adopted in Order No. R-8770, October 26, 1988.

Application of Union Pacific Resources Company for Pool Extension and Special Pool Rules, Lea County, New Mexico.

CASE NO. 9439
Order No. R-8770

ORDER OF THE DIVISION

BY THE DIVISION: This cause came on for hearing at 8:15 a.m. on August 17, 1988, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 26th day of October, 1988, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS THAT:

(1) Due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.

(2) Division Case Nos. 9439 and 9440 were consolidated at the time of the hearing for the purpose of testimony.

(3) By Order No. R-8667 dated June 10, 1988, the Division created and defined the Vada-Devonian Pool with horizontal limits consisting of the SW/4 of Section 26, Township 10 South, Range 33 East, NMPM, Lea County, New Mexico.

(4) The applicant, Union Pacific Resources Company, seeks to extend the horizontal limits of the Vada-Devonian Pool to include the NW/4 of Section 35, Township 10 South, Range 33 East, NMPM, Lea County, New Mexico, and further seeks the promulation of temporary special rules and regulations for said pool, including a provision for 80-acre spacing and proration units, designated well locations, and a poolwide exception to Division Rule No. 111 allowing for directional drilling or well deviations of more than five degrees in any 500-foot interval.

(5) The applicant is the owner and operator of the discovery well for said pool, the State "26" Well No. 1 located 330 feet from the South line and 2310 feet from the West line of said Section 26.

(6) The applicant is also the owner and operator of the State "26" Well No. 2 located 1910 feet from the South line and 1980 feet from the East line (Unit J) of said Section 26, which was spudded on April 21, 1988, was drilled to a depth of 12,953 feet and is currently being sidetracked to an unorthodox subsurface location within a 150-foot radius of a point 1910 feet from the South line and 2580 feet from the East line (Unit J) of said Section 26, (being the subject of companion Case No. 9440).

ENDORSED

JUL 06 1998

FIRST JUDICIAL DISTRICT COURT
SANTA FE, RIO ARRIBA & LOS ALAMOS COUNTIES
P. O. Box 2268
Santa Fe, New Mexico 87504-2268
JoAna Vigil Quintana
Court Administrator/District Court Clerk

FIRST JUDICIAL DISTRICT COURT
COUNTY OF SANTA FE
STATE OF NEW MEXICO

WHITING PETROLEUM CORPORTION, a corporation, and MARALEX RESOURCES, INC., a corporation,

Plaintiffs,

vs.

No. D-0101-CV-98-01295

PENDRAGON ENERGY PARTNERS, INC., a corporation, and J.K. EDWARDS ASSOCIATES, INC., a corporation,

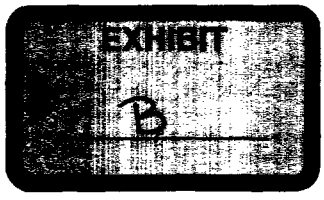
Defendants.

ORDER REGARDING MOTION TO DISMISS FOR LACK OF JURISDICTION

THIS MATTER having come before the court on June 29, 1998 on Defendants' Motion to Dismiss For Lack of Subject Matter Jurisdiction Or, In the Alternative, For Failure to State A Claim Upon Which Relief Can Be Granted, the parties having appeared by counsel and the Court having reviewed the pleadings and having heard argument of counsel for the parties, concludes as follows:

1. This Court has jurisdiction over the subject matter of this case and the claims alleged by Plaintiffs, and the Defendants' motion to dismiss for lack of subject matter jurisdiction is denied in part and granted in part.

2. Defendants have requested that the Court refer this matter to the New Mexico Oil Conservation Division under the doctrine of primary jurisdiction. This Court has determined to defer to the jurisdiction of the New Mexico oil Conservation Division in view of the greater expertise of the New Mexico Oil Conservation Division in this particular field and to promote more uniform decision making.



3. Those issues raised by the lawsuit which relate to the parties' relative rights in the land and are subject to meaningful relief through the New Mexico Oil Conservation Division should be recognized as within the jurisdiction of the New Mexico Oil Conservation Division. What the Court retains are those claims, regardless of how they are denominated that are not susceptible of relief through the New Mexico Conservation Division.

IT IS THEREFORE ORDERED that Defendants' Motion to Dismiss For Lack Of Subject Matter Jurisdiction Or, In The Alternative, For Failure To State A Claim Upon Which Relief Can Be Granted be and hereby is denied in part and granted in part and as a matter of comity, the Court defers to the New Mexico Oil Conservation Division as above stated.

The Honorable Art Encinias
District Judge 7/6/18

FIRST JUDICIAL DISTRICT COURT
STATE OF NEW MEXICO
COUNTY OF SANTA FE

NO. **D-0101-CV-98-1295**

WHITING PETROLEUM CORPORATION, et al.
Plaintiffs

vs

PENDRAGON ENERGY PARTNERS, et al.
Defendants

and

PENDRAGON ENERGY PARTNERS, et al.
Counterclaimants

vs

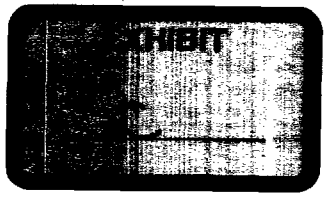
WHITING PETROLEUM CORPORATION, et al.
Counterclaim-Defendants

MEMORANDUM DECISION

THIS MATTER came before the court upon the Defendants Pendragon for a Stay of Discovery. The Plaintiffs timely filed a Response in Opposition thereto and, thereafter, the Defendants filed a Reply. Because the Motion, Response and Reply are clear and comprehensive, the court finds no necessity for hearing in order to resolve the matter.

Mindful that the central issues in this case are before the New Mexico Oil Conservation Division [NMOCD] for determination in a presently pending administrative proceeding and that there is provision for discovery by the parties in this context, the court finds that a Stay of discovery in the present civil litigation would reduce costs to the parties, avoid duplication of effort in decision-making and promote judicial economy.

The Defendants' Motion, insofar as it seeks to stay discovery in this case until the merits of the administrative dispute are resolved by the NMOCD, should be granted. While no provision is made at this time for stay of discovery beyond resolution by NMOCD, there is no bar to the Defendants' request to extend the stay in the event of appeal of that resolution to the New Mexico Oil Conservation Commission, provided that good cause is shown therefor.



JEG
MJC

Directions to Counsel

Mr. Hall, please prepare a form of Order of Stay of Discovery in accord with the court's Decision, circulate the form of Order to opposing counsel for approval as to form and submit the approved form to the court for signature and entry no later than November 13, 1998 at 9:00 a.m.

In the event, there are objections to the form of the Order, please present your proposed form to the Court on November 13, 1998 at 9:00 a.m. Objections, if any, shall be in writing and filed with the Clerk of the Court -- with courtesy copies to the Judge -- no later than three (3) working days before the date set for presentment.

ORIGINAL SIGNED BY
ART ENCINIAS

ART ENCINIAS, District Judge

Michael J. Condon, Esq.
Gallegos Law Firm
460 St. Michael's Drive, Bldg 300
Santa Fe, NM 87505

J. Scott Hall
Miller, Stratvert, Torgerson & Schlenker
150 Washington Avenue
Santa Fe, NM 87501

FIRST JUDICIAL DISTRICT COURT
COUNTY OF SANTA FE
STATE OF NEW MEXICO

WHITING PETROLEUM CORPORATION, a corporation, and MARALEX RESOURCES, INC., a corporation and T. H. McELVAIN OIL AND GAS, a Limited Partnership,

Plaintiffs,

vs.

PENDRAGON ENERGY PARTNERS, INC., a corporation, PENDRAGON RESOURCES, L.P. and J.K. EDWARDS ASSOCIATES, INC., a corporation

Defendants,

and **No. CV-98-01295**

PENDRAGON ENERGY PARTNERS, INC., a corporation, PENDRAGON RESOURCES, L.P. and J.K. EDWARDS ASSOCIATES, INC., a corporation

Counterclaimants,

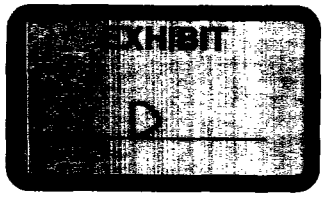
vs.

WHITING PETROLEUM CORPORATION, a corporation, and MARALEX RESOURCES, INC., a corporation and T. H. McELVAIN OIL AND GAS, a limited Partnership,

Counterclaim-Defendants.

ORDER OF STAY OF DISCOVERY

THIS MATTER, having come before the Court pursuant to the Defendants' Motion to Stay Discovery, and the Court being duly advised;



IT IS ORDERED that discovery in this case is stayed pending resolution of the merits of the administrative proceeding by the New Mexico Oil Conservation Division in NMOCD Case No. 11996, or until further order of the Court.

ORIGINAL SIGNED BY
ART ENCINIAS

The Honorable Art Encinias
District Judge

Submitted by:

MILLER, STRATVERT & TORGERSON

By: J. Scott Hall

J. Scott Hall
Post Office Box 1986
Santa Fe, N.M. 87504
(505) 989-9614

Approved as to form:

GALLEGOS LAW FIRM, P.C.

By: Telephonically Approved 11/9/98

J.E. Gallegos, Esq.
Michael Condon, Esq.
460 St. Michael Drive, Suite 300
Santa Fe, N.M. 87505
(505) 983-6686

STATE OF NEW MEXICO
ENERGY MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION COMMISSION

APPLICATION OF PENDRAGON ENERGY PARTNERS, INC., PENDRAGON RESOURCES, L.P., AND J.K EDWARDS ASSOCIATES, INC. TO CONFIRM PRODUCTION FROM THE APPROPRIATE COMMON SOURCE OF SUPPLY, SAN JUAN COUNTY, NEW MEXICO

OCD CASE NO. 11996

MOTION FOR STAY OF PROCEEDINGS AND TO QUASH SUBPOENAS DUCES TECUM

Whiting Petroleum Corporation ("Whiting") and Maralex Resources, Inc. ("Maralex") (collectively "Whiting"), hereby request that the Oil Conservation Division ("OCD") and the Oil Conservation Commission ("OCC") enter their Order staying all further proceedings in this case and quashing subpoenas duces tecum served by applicants (collectively "Pendragon"). A stay of proceedings is justified in order to foster administrative economy and lessen the burden and expense on Whiting and Pendragon. An exhaustive and thorough decision was issued in this matter on February 5, 1999 by the OCD. Pendragon has already demonstrated an intent to unnecessarily complicate these proceedings and increase the administrative burden by filing its misnamed Motion for Partial Stay of Order R-11133. Pendragon's latest Motion, which seeks relief not requested in the OCD proceeding, and relief which is unauthorized by statute or rule, would require a separate evidentiary hearing if the OCC decides to hear that Motion.

All issues that would be tried to the OCC in a de novo appeal will necessarily be determined in the pending litigation in Santa Fe District Court styled

Whiting, et al. v. Pendragon, et al. Cause No. D-0101-CV-980129S. Granting this Motion will assure both parties' right to a full and complete adjudication of their claims without duplication of effort and cost.

As grounds for this Motion, Whiting states as follows:

FACTUAL BACKGROUND

1. Whiting filed its Complaint for Tortious Conduct, and for Damages and Equitable Relief on May 26, 1998. Whiting simultaneously filed a Verified Application for Preliminary Injunction seeking to have defendants' Chaco gas wells, located in the San Juan Basin, San Juan County, New Mexico, shut-in. Whiting owns interests in the Basin-Fruitland Coal Gas pool, (a/k/a the Fruitland Formation) which overlies the Pictured Cliffs Formation in which Pendragon owns interests and from which the Chaco gas wells are authorized to produce.

2. Whiting contends that Pendragon caused communication with the Fruitland formation by restimulation work performed on the Chaco gas wells in 1995, and that Pendragon has produced Whiting's coal seam gas from the Chaco gas wells since 1995. Following hearing on June 29, 1998, the Court entered a Preliminary Injunction based on a finding that Pendragon was, and had been since 1995, converting Whiting's gas. A copy of the Preliminary Injunction is attached as Exhibit A.

3. Pendragon, on May 26, 1998, filed its Application to Confirm Production from the appropriate Common Source of Supply in OCD Case No. 11996. Pendragon's Application concerns the same Chaco wells shut-in by the Court's Preliminary Injunction Order. Pendragon sought an Order finding that there was no communication between the Fruitland and Pictured Cliffs formation, and holding that

Whiting and Pendragon were producing only from the respective formation in which each owned its interest.

4. On July 6, 1998, the Court entered its Order denying Pendragon's Motion to Dismiss for Lack of Subject Matter Jurisdiction. Pendragon had argued that the Court lacked jurisdiction over the dispute based on Pendragon's Application. The Court denied Pendragon's Motion, specifically retaining jurisdiction of all claims that were not susceptible of relief through the OCD. The Court, as a matter of comity, deferred to the OCD on matters within the jurisdiction of the OCD. A copy of the Court's July 6, 1998 Order is attached as Exhibit B.

5. The OCD held an exhaustive three-day fact-finding hearing in this matter on July 28-30, 1998. Pendragon contended at that hearing, and in proposed findings submitted to the OCD, that its restimulation work could not have caused communication with the Fruitland Formation based on Pendragon's theory that the physical characteristics of the Fruitland Formation would prevent communication between the formations. Both parties incurred significant expense, and the OCD was significantly burdened, by the time, effort and cost associated with the hearing.

6. On August 21, 1998, within days of submitting its proposed Findings to the OCD, Pendragon filed its Answer and Counterclaim in the District Court proceeding, in which it alleges that there is communication between the Fruitland Formation and the Pictured Cliffs Formation. These allegations are inconsistent with the position taken by Pendragon before the OCD.

7. On September 29, 1998, the District Court entered its Order Extending the Preliminary Injunction until further order of the Court pending the decision from the OCD. A copy of that Order is attached as Exhibit C.

8. On November 10, 1998, on Pendragon's Motion to Stay Discovery, the District Court entered an Order of Stay of Discovery "pending resolution of the merits of the administrative proceeding by the New Mexico Oil Conservation Division in NMOCD Case No. 11996, or until further order of the Court." A copy of that Order is attached as Exhibit D. Whiting has moved the Court for its Order lifting the stay on discovery. Pendragon has refused to agree to that Motion.

9. On February 5, 1999, the OCD issued its Order of the Division in this matter. The Division found that Pendragon, in stimulating its Pictured Cliffs wells, had caused communication with the Fruitland coal zone in which plaintiffs exclusively owned interests; that Pendragon had been producing gas belonging to Whiting since 1995 from those wells, and that Pendragon's actions had violated the correlative rights of Whiting. The OCD ordered that the wells be shut-in pending further Order of the Division, and invited Pendragon to attempt to work out an allocation formula with Whiting, or appear before the OCD in order to present evidence to the OCD of a proper allocation.

10. Pendragon has made no effort to develop an allocation formula. Pendragon filed its Application for Hearing De Novo on February 18, 1999. Whiting, in order to preserve its right to appeal in the case, filed an Application for Hearing de Novo as to Limited Issues on February 23, 1999.

11. Pendragon has had subpoenas issued by the OCD directed to Whiting, Maralex, and Whiting's expert witnesses who appeared and testified at the OCD hearing in July, 1998, S.A. Holditch and Associates, Inc., College Station, Texas ("Holditch").[1] Copies of those subpoenas are attached as Exhibits E-G.

12. On March 1, 1999, Pendragon filed a Motion for Partial Stay of Order R-11133. It is certainly understandable that Pendragon is unhappy with portions of that Order. However, in ordering that Pendragon's Chaco wells be shut-in, the OCD reached the same conclusion as the Honorable Art Encinias in the district court proceeding. Following the exhaustive evidentiary hearing before the OCD, the OCD found that the Pictured Cliffs Formation was in a state of depletion prior to Pendragon's restimulation work in 1995, that the Pendragon restimulation efforts were not solely attributable to overcoming skin damage in the wells, that production from the Whiting coal seam gas wells had been affected by production from the Chaco wells, that the fracture stimulations performed on the Chaco wells resulted in fracturing of the Fruitland coal formation, that Pendragon failed to present sufficient evidence to establish that the fracture stimulations on the Whiting coal seam gas wells resulted in the fracturing of the Pictured Cliffs formation, that the Pendragon restimulation procedures in 1995 caused communication between the Pictured Cliffs formation and the Fruitland formation, and that the communication caused by Pendragon's restimulation procedures "has resulted in the violation of Whiting's correlative rights." The OCD expressly noted that "Pendragon presented no proposed resolution in the event the Division determines that

[1] The subpoena was addressed to and served upon Schlumberger Technology Corp., which purchased Holditch in 1998.

communication between the Basin-Fruitland coal and WAW Fruitland Sand – Pictured Cliffs Gas Pools has been established within its Chaco wells."

13. Apparently, Pendragon is not satisfied that it stole Whiting's gas for three years before both the District Court and the OCD ordered Pendragon to stop. In the ultimate act of chutzpah, Pendragon now has filed its Motion for Partial Stay, which does not really seek a stay of that Order, but rather asks the OCD and/or OCC to overturn Order R-11133, award relief contrary to that requested by Pendragon before the OCD, save Pendragon from its own failure to introduce evidence to justify its Application to the OCD, overturn the Division's Findings prior to a hearing on the de novo appeal, and order the Whiting coal seam gas wells shut-in on a theory which has already been rejected by the OCD.[2] There is no authority in either the Oil and Gas Act or the applicable rules and regulations for Pendragon's latest procedural maneuvering.

14. Counsel for Pendragon has indicated that he anticipates that a hearing before the OCC will take even longer than the three long days of testimony before the Examiner, and counsel for Whiting concur in that projection.

LEGAL ARGUMENT AND AUTHORITY

I. THE OCC SHOULD STAY PROCEEDINGS ON THE DE NOVO APPEAL

15. NMSA 1978 Section 70-2-13 (1995 Repl.) provides that any party of record adversely affected by a decision of the OCD shall have the right to have the matter heard do novo before the OCC upon application filed with the Division. No specific procedure for the conduct of such de novo appeals is contained in the statute. OCD Rule 1220 provides that the matter or proceeding be set for hearing before the

[2] Whiting will file a separate, substantive response to Pendragon's Motion.

OCC at the first available hearing date following the expiration of fifteen (15) days from the date such application is filed with the OCD.

16. This case is unique in several ways. First, it is clear that the parties are unable to agree on anything except that each vigorously disputes the position of the other. Second, unlike most administrative cases, there is a pending lawsuit between these same parties where all the same issues that would be heard by the OCC will necessarily be tried by the district court, regardless of any decision ultimately issued by the OCC. The district court can and will entertain issues that the OCC cannot. The OCC has no power to award either compensatory or punitive damages. While the OCC can shut-in wells, it cannot grant broad injunctive relief nor decide issues of ownership. As Pendragon's actions since the entry of the OCD Order in this matter indicate, one or both parties will appeal any decision by the OCC to the First Judicial District Court, where the lawsuit previously filed by Whiting is already pending.

17. This dispute is also unique in the time, effort, cost and expense which will be required if the OCC sets this matter for hearing on the de novo appeals. The hearing days before the OCD Examiner started at 8:30 a.m. and went until after 6:00 p.m., and after 7:00 the final day. Numerous witnesses were called. All of the experts were from out-of-state. Significant administrative time and expense, as well as the time and expense of the parties was incurred in presenting the matter for evidentiary hearing before the OCD. A huge block of administrative time was consumed in preparing the Order of the Division, as reflected by the detail, depth and precision of that Order. Any de novo hearing before the OCC promises to be more involved, time-consuming and expensive than that before the OCD.

18. Pendragon's Motion for Partial Stay of Order R-11133 presages an effort by Pendragon in this administrative proceeding to substantially increase the administrative burden in the hopes that the OCD or OCC will grant Pendragon relief to which it is not entitled, regarding which it has submitted no substantive supporting evidence, and which is inconsistent with the findings of the Division in Order R-11133. Pendragon's Motion for Partial Stay is specious, and seeks to turn what will otherwise be a complicated and involved hearing on the de novo appeal into a series of mini-trials on preliminary motions. The best and most effective way to deal with the promised onslaught of pleadings which the parties and the administrative agency can expect from Pendragon is to stay all proceedings in this matter in order to allow the district court to schedule evidentiary hearings on motions, set the case for trial, and resolve the dispute between the parties.

19. An administrative agency has the inherent authority to regulate its docket, and to take such action as it believes is necessary in the interest of administrative economy, in order to preserve administrative resources, and lessen the cost, burden and expense of private parties in the resolution of disputes. A stay of proceedings before the OCC in order to allow the parties to litigate their claims in the district court will benefit administrative economy, and lessen the burden and cost on the parties necessary to secure an ultimate resolution of their dispute. A stay of proceedings before the OCC will not deprive any party of their right to fully litigate any issue, nor will it deprive any party of their right to a full day in court. In fact, since both the district court and the OCD have confirmed that Pendragon has been converting Whiting's gas and violating Whiting's correlative rights, Pendragon's request for the

OCC de novo hearing only serves to delay the day Whiting can obtain a damages judgment for Pendragon's wrongs.

II. ALTERNATIVELY -- ANY HEARING BEFORE THE OCC SHOULD OCCUR ONLY AFTER DISCOVERY

20. **If** the OCC is to hear this de novo appeal, the OCC should, at a minimum, authorize both parties to conduct discovery in the form of requests for production and depositions of witnesses each intends to call at the hearing. The record of any proceeding before the OCC will constitute the administrative evidentiary record regarding this dispute. Any appeal from an OCC decision is limited to a review of the record of the hearing held before the OCC. NMSA 1978, §§ 70-2-25B and 26 (1995 Repl.).

21. Administrative proceedings must conform to the fundamental principles of justice and due process requirements. This requires that the administrative process authorize pre-trial discovery under appropriate circumstances such as exist here. In re Miller, 88 N.M. 492, 542 P.2d 1182 (Ct. App.), cert. denied, 89 N.M. 5, 546 P.2d 70 (1975). Discovery procedures are expressly authorized under NMSA 1978, § 70-2-8 (1995 Repl.).

22. Whiting was hampered in the proceeding before the OCD in this case by Pendragon's attempt to stonewall production of documents prior to the hearing. Some documents were produced by Pendragon, but only upon order of the OCD, one (1) day prior to the hearing. Whiting anticipates that Pendragon will similarly attempt to resist a fair and full exchange of evidence, expert opinions, and facts related to the matters raised by Pendragon's application, if in fact Pendragon still stands on its original Application before the OCC.

23. **If** the OCC is to hear this de novo appeal, it should set this matter for hearing in August or September, 1999, establish a schedule for mutual production of documents between the parties, an exchange of witness lists, setting a timetable for discovery in the form of depositions of the parties' representatives and experts who will testify at any OCC hearing, and require that the parties provide the OCC with a Pre-Hearing Report which sets out, to the extent possible, stipulated facts which the parties can identify following discovery.

III. THE SUBPOENAS SERVED BY PENDRAGON SHOULD BE QUASHED

24. Pendragon has served a subpoena in this matter on Schlumberger, in order to secure documents from Holditch, Whiting's expert witness in the administrative proceeding. Holditch is not a party, and has its offices in College Station, Texas. The subpoena seeks all documents in the possession of Holditch related to this dispute, including documents that would constitute work product.

25. The service of the subpoena on Holditch is invalid under Rule 1-045B(3), NMRA 1999. The subpoena was issued by the OCD from Santa Fe, New Mexico, and served on CT Corporation. The OCD's subpoena power is set by Statute (§ 70-2-8) and rule, and is no greater than the power authorized by Rule 1-045 NMRA 1999. The subpoena power of an administrative agency is limited. A court or administrative agency can require a subpoenaed party to appear within a geographic area within one hundred (100) miles of where the person resides, is employed or transact business. Rule 1-045. College Station, Texas, where the Holditch documents are maintained, is more than one hundred (100) miles from Santa Fe.

26. Rule 1-026B(5) NMRA 1999 sets limits on discovery from expert witnesses without an order from the Court. Pendragon has not sought permission from the OCD or the OCC for the expanded discovery it seeks from Holditch. Unless the parties agree otherwise, any discovery from experts should be limited to that provided under Rule 1-026B(5) NMRA 1999, which authorizes a party to serve interrogatories seeking disclosure of the subject matter of testimony, the opinions, and a summary of the grounds for each opinion. In no event is Pendragon entitled to discovery of the Holditch work product.

27. To the extent Pendragon seeks raw data, that raw data is prepared and maintained by Whiting. Any raw data in the possession of Holditch is duplicative of raw data which has or will be produced by Whiting in the context of this proceeding. To the extent that Pendragon's request for production is not limited to raw data, but includes a request for interpretations, analysis and other materials comprising the work product of Holditch, Whiting objects to the request. The policy of the OCD and OCC requires the turnover of raw data, but not interpretations thereof made or prepared by the parties subpoenaed. See Commission ruling dated February 15, 1991 in Case No. 10211 (application of Santa Fe Energy Operating Partners, L.P. for compulsory pooling). The subpoena served on Schlumberger should be quashed.

28. Pendragon has also served subpoenas on Whiting and Maralex. On the grounds previously stated, any discovery in this proceeding should be stayed in order to allow the parties to litigate all pending issues in the district court proceeding. **If** the OCC intends to hear this matter, any discovery should be stayed pending a Pre-Hearing Conference at which time a schedule for any further administrative

proceedings, including discovery, may be established and the parties' rights and obligations regarding discovery identified and clarified.

29. There is presently no hearing on the de novo appeal scheduled before the OCC. A preliminary conference is scheduled for March 30, 1999. If the OCC grants the Motion for Stay of Proceedings, production of documents pursuant to the subpoenas is unnecessary. If the OCC denies such motion, Whiting requests that it have sufficient time after a discovery schedule is agreed upon to produce documents reflecting raw data.

WHEREFORE, Whiting respectfully requests that the OCC stay all proceedings in this matter and defer to the district court of Santa Fe County for resolution of all issues between the parties. Alternatively, if the OCC determines that it will hear this matter on the de novo appeal, it should quash the subpoena issued and improperly served on Holditch, and quash the subpoenas issued and served on Whiting and Maralex until such time as the Pre-Hearing Conference is held and a orderly discovery and hearing schedule is established.

Respectfully submitted,

GALLEGOS LAW FIRM, P.C.

By _____

J.E. GALLEGOS
MICHAEL J. CONDON
460 St. Michael's Drive, Bldg. 300
Santa Fe, New Mexico 87505
(505) 983-6686

Attorneys for Whiting Petroleum Corp.
and Maralex Resources, Inc.

CERTIFICATE OF SERVICE

I hereby certify that I have caused a true and correct copy of the foregoing Motion for Stay of Proceedings and to Quash Subpoenas Duces Tecum to be mailed on this 3rd day of March, 1999 to the following:

J. Scott Hall, Esq.
Miller, Stratvert & Torgerson, P.A.
P.O. Box 1986
Santa Fe, NM 87501-1986

Rand Carroll, Esq.
New Mexico Oil Conservation Division
2040 South Pacheco Street
Santa Fe, NM 87505

Marilyn S. Hebert, Esq.
New Mexico Oil Conservation Commission
2040 South Pacheco
Santa Fe, New Mexico 87505

MICHAEL J. CONDON

ENDORSED

JUL 0 7 1998

FIRST JUDICIAL DISTRICT COURT
SANTA FE, RIO ARRIBA & LOS ALAMOS COUNTIES
P. O. Box 2268
Santa Fe, New Mexico 87504-2268
JoAnn Vigil Quintana
Court Administrator/District Court Clerk

FIRST JUDICIAL DISTRICT COURT
COUNTY OF SANTA FE
STATE OF NEW MEXICO

WHITING PETROLEUM CORPORATION, a corporation, and MARALEX RESOURCES, INC., a corporation,

Plaintiffs,

vs.

No. SF-CV-98-01295

PENDRAGON ENERGY PARTNERS, INC., a corporation, and J.K. EDWARDS ASSOCIATES, INC., a corporation

Defendants.

PRELIMINARY INJUNCTION

THIS MATTER came before the Court on June 29, 1998 on Plaintiffs' Verified Application for Preliminary Injunction with the parties appearing by their corporate representatives and counsel. The Court having received evidence and arguments of counsel for all parties, FINDS that good grounds have been established in behalf of the plaintiffs' Application and it should be granted.

Upon the evidence presented and application of the law concerning issuance of preliminary injunctions the Court CONCLUDES AS FOLLOWS:

1. The Court has jurisdiction of the parties and of the subject matter.

2. Plaintiffs have established a substantial likelihood that they will prevail on the merits of their claim that defendants have trespassed into plaintiffs' Fruitland formation and that defendants are converting the plaintiffs' gas.

3. Issuance of an injunction may cause harm to defendants but the continuing harm to plaintiffs should the injunction not issue greatly outweighs the harm

Served 7-7-98 By: ___ Docketed ___ CC: ___ Vol: ___ Tab: 13

to the defendants.

4. Issuance of an injunction against defendants' continued taking of plaintiffs' gas will not be adverse to the public interest.

5. The Court has weighed the factors to be considered under New Mexico law in determining whether to issue a preliminary injunction and having done so concludes that the Application for Preliminary Injunction in behalf of plaintiffs is well taken and should be granted.

IT IS THEREFORE ORDERED AS FOLLOWS:

1. The defendants upon entry of this Preliminary Injunction shall immediately shut-in Chaco wells 1, 2R, 4 and 5 and cease and desist all gas production therefrom.

2. This Preliminary Injunction is to remain in force for a period of ninety (90) days from entry, or until further order of the Court, to permit review by the Court and consideration by the New Mexico Oil Conservation Division or New Mexico Oil Conservation Commission on certain issues within their administrative jurisdiction.

3. The Court will review this matter prior to the expiration of ninety (90) days from entry to consider the disposition of an administrative proceeding, if any, and to make any further orders as may be deemed appropriate or necessary.

4. No bond shall be required of plaintiffs, however, defendants are encouraged to track production loss in the event they become entitled to claim they have been wronged by the issuance of this Preliminary Injunction.

ORIGINAL SIGNED BY
ART ENCINIAS

The Honorable Art Encinias
District Judge

ORIGINAL SIGNED BY
ART ENCINIAS

Submitted on Notice of Presentment:

GALLEGOS LAW FIRM, P.C.

By _____
J.E. Gallegos
Michael J. Condon
460 St. Michael's Drive, Bldg. 300
Santa Fe, New Mexico 87505

Attorneys for Plaintiffs

ENDORSED

JUL 0 6 1998

FIRST JUDICIAL DISTRICT COURT
SANTA FE, RIO ARRIBA & LOS ALAMOS COUNTIES
P. O. Box 2268
Santa Fe, New Mexico 87504-2268
Judge Virgil Quintana
Court Administrator/District Court Clerk

FIRST JUDICIAL DISTRICT COURT
COUNTY OF SANTA FE
STATE OF NEW MEXICO

WHITING PETROLEUM CORPORTION, a corporation, and MARALEX RESOURCES, INC., a corporation,

Plaintiffs,

vs.

No. D-0101-CV-98-01295

PENDRAGON ENERGY PARTNERS, INC., a corporation, and J.K. EDWARDS ASSOCIATES, INC., a corporation,

Defendants.

ORDER REGARDING MOTION TO DISMISS FOR LACK OF JURISDICTION

THIS MATTER having come before the court on June 29, 1998 on Defendants' Motion to Dismiss For Lack of Subject Matter Jurisdiction Or, In the Alternative, For Failure to State A Claim Upon Which Relief Can Be Granted, the parties having appeared by counsel and the Court having reviewed the pleadings and having heard argument of counsel for the parties, concludes as follows:

1. This Court has jurisdiction over the subject matter of this case and the claims alleged by Plaintiffs, and the Defendants' motion to dismiss for lack of subject matter jurisdiction is denied in part and granted in part.

2. Defendants have requested that the Court refer this matter to the New Mexico Oil Conservation Division under the doctrine of primary jurisdiction. This Court has determined to defer to the jurisdiction of the New Mexico oil Conservation Division in view of the greater expertise of the New Mexico Oil Conservation Division in this particular field and to promote more uniform decision making.

Served: 7-6-98
Docketed: _____ By: _____
CC: _____
Vol: 5 Tab: 11

EXHIBIT B

3. Those issues raised by the lawsuit which relate to the parties' relative rights in the land and are subject to meaningful relief through the New Mexico Oil Conservation Division should be recognized as within the jurisdiction of the New Mexico Oil Conservation Division. What the Court retains are those claims, regardless of how they are denominated that are not susceptible of relief through the New Mexico Conservation Division.

IT IS THEREFORE ORDERED that Defendants' Motion to Dismiss For Lack Of Subject Matter Jurisdiction Or, In The Alternative, For Failure To State A Claim Upon Which Relief Can Be Granted be and hereby is denied in part and granted in part and as a matter of comity, the Court defers to the New Mexico Oil Conservation Division as above stated.

The Honorable Art Encinias
District Judge 7/6/18

ENDORSED

SEP 2 9 1998

FIRST JUDICIAL DISTRICT COURT
SANTA FE, RIO ARRIBA & LOS ALAMOS COUNTIES
P. O. Box 2268
Santa Fe, New Mexico 87504-2268
JoAnn Vigil Quintana
Court Administrator/District Court Clerk

FIRST JUDICIAL DISTRICT COURT
COUNTY OF SANTA FE
STATE OF NEW MEXICO

WHITING PETROLEUM CORPORATION, a corporation, MARALEX RESOURCES, INC., a corporation, and T.H. McELVAIN OIL & GAS, Limited Partnership,

Plaintiffs,

vs. **No. SF-CV-98-01295**

PENDRAGON ENERGY PARTNERS, INC., a corporation, PENDRAGON RESOURCES, L.P., and J.K. EDWARDS ASSOCIATES, INC., a corporation,

Defendants.

ORDER EXTENDING PRELIMINARY INJUNCTION

THIS MATTER having come before the Court on September 25, 1998 upon Plaintiffs' Motion to Extend Preliminary Injunction, the parties having appeared by their attorneys and the Court having reviewed the Preliminary Injunction previously entered, and having considered the Motion and being advised in the premises, FINDS that the Motion is well taken and should be granted.

IT IS THEREFORE ORDERED that the Preliminary Injunction entered by this Court on July 7, 1998, will remain in full force and effect until further order of the Court.

ORIGINAL SIGNED BY
ART ENCINIAS

The Honorable Art Encinias
District Judge

Submitted:
GALLEGOS LAW FIRM, P.C.

By J.E. Gallegos
J.E. Gallegos
Michael J. Condon
460 St. Michael's Drive, Bldg. 300
Santa Fe, New Mexico 87505

EXHIBIT C

Served: 9-29-98
Docketed: _____ By: _____
CC: _____
Vol: 5 Tab: 20

Attorneys for Plaintiffs

Approved as to form:

MILLER, STRATVERT, TORGERSON
& SCHLENKER, P.A.

By_____
J. Scott Hall
150 Washington Avenue
Santa Fe, New Mexico 87501

Attorneys for Defendants

ENDORSED

NOV 19 1998

FIRST JUDICIAL DISTRICT COURT
SANTA FE & LOS ALAMOS COUNTIES
P. O. Box 2268
Santa Fe, New Mexico 87504-2268
Court Administrator/District Court Clerk

FIRST JUDICIAL DISTRICT COURT
COUNTY OF SANTA FE
STATE OF NEW MEXICO

WHITING PETROLEUM CORPORATION, a corporation, and MARALEX RESOURCES, INC., a corporation and T. H. McELVAIN OIL AND GAS, a Limited Partnership,

Plaintiffs,

vs.

PENDRAGON ENERGY PARTNERS, INC., a corporation, PENDRAGON RESOURCES, L.P. and J.K. EDWARDS ASSOCIATES, INC., a corporation

Defendants,

and **No. CV-98-01295**

PENDRAGON ENERGY PARTNERS, INC., a corporation, PENDRAGON RESOURCES, L.P. and J.K. EDWARDS ASSOCIATES, INC., a corporation

Counterclaimants,

vs.

WHITING PETROLEUM CORPORATION, a corporation, and MARALEX RESOURCES, INC., a corporation and T. H. McELVAIN OIL AND GAS, a limited Partnership,

Counterclaim-Defendants.

ORDER OF STAY OF DISCOVERY

THIS MATTER, having come before the Court pursuant to the Defendants' Motion to Stay Discovery, and the Court being duly advised;

Served 11-10-98
Docketed _____ By _____
CC: _____
Vol: I Tab: 42 (D)

EXHIBIT D

IT IS ORDERED that discovery in this case is stayed pending resolution of the merits of the administrative proceeding by the New Mexico Oil Conservation Division in NMOCD Case No. 11996, or until further order of the Court.

ORIGINAL SIGNED BY
ART ENCINIAS

The Honorable Art Encinias
District Judge

Submitted by:

MILLER, STRATVERT & TORGERSON

By: J. Scott Hall

J. Scott Hall
Post Office Box 1986
Santa Fe, N.M. 87504
(505) 989-9614

Approved as to form:

GALLEGOS LAW FIRM, P.C.

By: Telephonically Approved 11/9/98

J.E. Gallegos, Esq.
Michael Condon, Esq.
460 St. Michael Drive, Suite 300
Santa Fe, N.M. 87505
(505) 983-6686

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION

IN THE MATTER OF:

APPLICATION OF PENDRAGON ENERGY PARTNERS, INC., PENDRAGON RESOURCES, L.P., And J.K. EDWARDS ASSOCIATES, INC TO CONFIRM PRODUCTION FROM THE APPROPRIATE COMMON SOURCE OF SUPPLY, SAN JUAN COUNTY, NEW MEXICO

CASE NO. 11996
ORDER NO. R-11133

SUBPOENA DUCES TECUM

99 FEB 17 PM 4:03
OIL CONSERVATION DIV.

TO: Schlumberger Technology Corporation
f/k/a Brazos Resources Development Corporation
f/k/a S.A. Holditch and Associates, Inc.
Bradley Robinson
c/o J.E. Gallegos
460 St. Michaels Drive, #300
Santa Fe, New Mexico 87505

Pursuant to Section 70-2-8, NMSA (1978), and Rule 1211 of the New Mexico Oil Conservation Division's Rules of Procedure, you are hereby ORDERED to appear at 9:00 a.m., on Monday, March 8, 1999, at the offices of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505 and to produce the documents and items specified in attached Exhibit A and to make available to Pendragon Energy Partners, Inc. and its attorney, J. Scott Hall, Esq., for copying, all of said documents.

This subpoena is issued on behalf of Pendragon Energy Partners, Inc. through its attorneys Miller, Stratvert & Torgerson, P.A., Post Office Box 1986, Santa Fe, New Mexico 87504. (505) 989-9614

Dated this _____ day of February, 1999.

EXHIBIT E

Exhibit A

This Subpoena Duces Tecum seeks the production and inspection of all documents and other materials in the possession of Schlumberger Technology Corporation, f/k/a and as successor to Brazos Resources Development Corporation, f/k/a and as successor to S.A. Holditch and Associates, Inc. and its agent, Bradley Robinson, P.E., relating to the following:

1. All the underlying facts, data and other materials used by you in connection with testimony given by Bradley Robinson and exhibits introduced through Bradley Robinson on July 28-30, 1998 in New Mexico Oil Conservation Division Case No. 11996 (Application of Pendragon Energy Partners, Inc., et al., To Confirm Production From Appropriate Common Source of Supply, San Juan County, New Mexico.)

2. All notes, computations, print-outs, log analyses and other similar materials relating in any way to your evaluation of the Pictured Cliffs formation wells or Fruitland Coal formation wells in the area of the subject Application, or otherwise relating to Bradley Robinson's testimony in the proceeding referenced in Paragraph 1, above.

3. All underlying data, assumptions and other materials actually utilized, or considered but not utilized, in connection with the Frac-Pro hydraulic fracturing computer simulations performed by S.A. Holditch and Associates in this case.

4. All underlying data, assumptions and other materials actually utilized, or considered but not utilized, in connection with the Pro-Mat production data analysis or reservoir volumetric analysis performed by S.A. Holditch and Associates on the Pictured Cliffs formation and/or the Fruitland Coal formation in connection with this case.

BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION

IN THE MATTER OF:

APPLICATION OF PENDRAGON ENERGY PARTNERS, INC., PENDRAGON RESOURCES, L.P., And J.K. EDWARDS ASSOCIATES, INC TO CONFIRM PRODUCTION FROM THE APPROPRIATE COMMON SOURCE OF SUPPLY, SAN JUAN COUNTY, NEW MEXICO

CASE NO. 11996

SUBPOENA DUCES TECUM

TO: Whiting Petroleum Corporation
c/o Michael J. Condon, Esq.
Gallegos Law Firm, P.C.
460 St. Michael's Drive, Suite 300
Santa Fe, New Mexico 87501

Pursuant to Section 70-2-8, NMSA (1978), and Rule 1211 of the New Mexico Oil Conservation Division's Rules of Procedure, you are hereby ORDERED to appear at 9:00 a.m., on Thursday, March 17, 1999, at the offices of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505 and to produce the documents and items specified in attached Exhibit A and to make available to Pendragon Energy Partners, Inc. and its attorney, J. Scott Hall, Esq., for copying, all of said documents.

This subpoena is issued on behalf of Pendragon Energy Partners, Inc. through its attorneys Miller, Stratvert & Torgerson, P.A., Post Office Box 1986, Santa Fe, New Mexico 87504. (505) 989-9614

Dated this 25th day of February, 1999.

NEW MEXICO OIL CONSERVATION DIVISION

By: _____
Lori Wrotenbery, Director

EXHIBIT F

EXHIBIT 'A'

1. Any supplemental documents or materials responsive to the subpoena dated February 4, 1998 and June 9, 1998 not previously produced.

2. All pressure data from the subject subject Gallegos Fruitland Coal wells from June 1998 to the present, including any data recorded, but not reported, along with any data collected on week-ends and holidays.

3. All gas, oil, and water production data from the subject Gallegos Fruitland Coal wells from the completion of the well through the present not previously provided.

4. All analyses of water and gas produced from the subject Chaco Pictured Cliffs wells and the subject Gallegos Fruitland Coal wells, including any BTU analyses, not previously provided.

5. All documents relating to all water produced and disposed of from the subject Gallegos Fruitland Coal wells, including proration reports, gauged tank volumes, disposal volumes, water disposal records, water hauling invoices, reports, reporting forms C-115's, C-133's, C-134's, etc.

BEFORE THE NEW MEXICO OIL CONSERVATION DIVISION

IN THE MATTER OF:

APPLICATION OF PENDRAGON ENERGY PARTNERS, INC., PENDRAGON RESOURCES, L.P., And J.K. EDWARDS ASSOCIATES, INC TO CONFIRM PRODUCTION FROM THE APPROPRIATE COMMON SOURCE OF SUPPLY, SAN JUAN COUNTY, NEW MEXICO

CASE NO. 11996

SUBPOENA DUCES TECUM

TO: Maralex Resources, Inc.
c/o Michael J. Condon, Esq.
Gallegos Law Firm, P.C.
460 St. Michael's Drive, Suite 300
Santa Fe, New Mexico 87501

Pursuant to Section 70-2-8, NMSA (1978), and Rule 1211 of the New Mexico Oil Conservation Division's Rules of Procedure, you are hereby ORDERED to appear at 9:00 a.m., on Wednesday, March 17, 1999, at the offices of the Oil Conservation Division, 2040 South Pacheco, Santa Fe, New Mexico 87505 and to produce the documents and items specified in attached Exhibit A and to make available to Pendragon Energy Partners, Inc. and its attorney, J. Scott Hall, Esq., for copying, all of said documents.

This subpoena is issued on behalf of Pendragon Energy Partners, Inc. through its attorneys Miller, Stratvert & Torgerson, P.A., Post Office Box 1986, Santa Fe, New Mexico 87504. (505) 989-9614

Dated this 25th day of February, 1999.

NEW MEXICO OIL CONSERVATION DIVISION

By: _____
Lori Wrotenbery, Director

EXHIBIT G

EXHIBIT 'A'

1. Any supplemental documents or materials responsive to the subpoena dated February 4, 1998 and June 9, 1998 not previously produced.

2. All pressure data from the subject subject Gallegos Fruitland Coal wells from June 1998 to the present, including any data recorded, but not reported, along with any data collected on week-ends and holidays.

3. All gas, oil, and water production data from the subject Gallegos Fruitland Coal wells from the completion of the well through the present not previously provided.

4. All analyses of water and gas produced from the subject Chaco Pictured Cliffs wells and the subject Gallegos Fruitland Coal wells, including any BTU analyses, not previously provided.

5. All documents relating to all water produced and disposed of from the subject Gallegos Fruitland Coal wells, including proration reports, gauged tank volumes, disposal volumes, water disposal records, water hauling invoices, reports, reporting forms C-115's, C-133's, C-134's, etc.

MILLER, STRATVERT & TORGERSON, P. A.

LAW OFFICES

RANNE B. MILLER
ALAN C. TORGERSON
ALICE TOMLINSON LORENZ
GREGORY W. CHASE
ALAN KONRAD
LYMAN G. SANDY
STEPHEN M. WILLIAMS
STEPHAN M. VIDMAR
ROBERT C. GUTIERREZ
SETH V. BINGHAM
JAMES B. COLLINS
TIMOTHY R. BRIGGS
RUDOLPH LUCERO
DEBORAH A. SOLOVE
GARY L. GORDON
LAWRENCE R. WHITE
SHARON P. GROSS
VIRGINIA ANDERMAN
MARTE D. LIGHTSTONE
J. SCOTT HALL
THOMAS R. MACK
TERRI L. SAUER

JOEL T. NEWTON
THOMAS M. DOMME
RUTH O. PREGENZER
JEFFREY E. JONES
MANUEL I. ARRIETA
ROBIN A. GOBLE
JAMES R. WOOD
DANA M. KYLE
KIRK R. ALLEN
RUTH M. FUESS
KYLE M. FINCH
H. BROOK LASKEY
KATHERINE W. HALL
FRED SCHILLER
MICHAEL I. GARCIA
LARA L. WHITE
PAULA G. MAYNES
DEAN B. CROSS
MICHAEL C. ROSS

WILLIAM K. STRATVERT, COUNSEL
PAUL W. ROBINSON, COUNSEL
RALPH WM. RICHARDS, COUNSEL
ROSS B. PERKAL, COUNSEL
JAMES J. WIDLAND, COUNSEL

ALBUQUERQUE
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LAS CRUCES
500 S. MAIN ST., SUITE 800
POST OFFICE BOX 1209
LAS CRUCES, NM 88004-1209
TELEPHONE: (505) 523-2481
FACSIMILE: (505) 526-2215

FARMINGTON
300 WEST ARRINGTON
POST OFFICE BOX 869
FARMINGTON, NM 87499-0869
TELEPHONE: (505) 326-4521
FACSIMILE: (505) 325-5474

SANTA FE
150 WASHINGTON AVE., SUITE 300
POST OFFICE BOX 1986
SANTA FE, NM 87504-1986
TELEPHONE: (505) 989-9614
FACSIMILE: (505) 989-9857

PLEASE REPLY TO SANTA FE

March 1, 1999

HAND DELIVERED

Lori Wrotenbery, Chairman
New Mexico Oil Conservation Commission
2040 South Pacheco
Santa Fe, New Mexico 87505

Re: NMOCD Case No. 11996; Application of Pendragon Energy Partners, Inc. to Confirm Production from Appropriate Common Source of Supply, San Juan County, New Mexico (Order No. R-11133)

Dear Ms. Wrotenbery:

Attached is an original and one copy of the Motion for Partial Stay of Order R-11133 filed on behalf of the Applicants in the above referenced **de novo** proceeding. Also enclosed is a draft Order for Partial Stay for your consideration.

Very Truly Yours,

J. Scott Hall

JSH:cw
Enclosure:

cc: Comm. William J. LeMay
Comm. Jami Bailey
Ms. Marilyn Hebert
Mr. David Catanach
Mr. Rand Carroll
Mr. Michael Condon

DRAFT

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

IN THE MATTER OF:

APPLICATION OF PENDRAGON ENERGY PARTNERS, INC., PENDRAGON RESOURCES, L.P., And J.K. EDWARDS ASSOCIATES, INC TO CONFIRM PRODUCTION FROM THE APPROPRIATE COMMON SOURCE OF SUPPLY, SAN JUAN COUNTY, NEW MEXICO

CASE NO. 11996
ORDER NO. R-11133

ORDER OF PARTIAL STAY

THIS MATTER, having come before the Division pursuant to the Motion For Partial Stay Of Order R-11133 filed by the Applicant, Pendragon Energy Partners, Inc., et al., and the Division, being duly advised,

FINDS THAT:

(1) Pressure and production data obtained since the examiner hearing in July, 1998, as well as decline curve analyses, clearly establish that the Gallegos Fed. 26-12-6 No. 2 and the Gallegos Fed. 26-13-12 No. 1 are draining Pictured Cliffs gas reserves.

(2) Order No. R-11133 found the existence of communication between the Basin-Fruitland Coal Gas Pool and the WAW Fruitland Sand Pictured Cliffs Gas Pool. However, Order No. R-11133 did not conclusively determine either (1) the areal extent of such communication and any resulting drainage, or (2) the cause of such communication.

(3) The provisions of Order No. R-11133 requiring the shut-in of the subject Pictured Cliffs wells, while not requiring the simultaneous shut-in of the subject Fruitland Coal wells, results in waste and gross negative consequences to the owners of the Pictured Cliffs gas reserves.

(4) The subject Fruitland Coal wells should be shut-in pending the hearing **de novo** in this matter, or as otherwise ordered by the Division or the Commission.

(5) Correlative rights are not at issue in this proceeding. Correspondingly, the finding at paragraph 51 of Order No. R-11133 is an incorrect basis for administrative action in this case and is otherwise unnecessary.

(6) The findings at paragraph 54 and 55 and decretal paragraph 3 of Order No. R-11133 suggest that further proceedings before the Division on any proposed methods of future production from the subject Pictured Cliffs wells are subject to the approval of Whiting Petroleum Corporation. To the extent these provisions of the Order do so, they should be stayed.

IT IS THEREFORE ORDERED THAT:

(1) The following Basin-Fruitland Coal Gas Pool producing wells shall be immediately shut-in:

Gallegos Federal 26-12-6 No. 2	W ½, Section 6, T26N, R12W
Gallegos Federal 26-12-7 No. 1	W ½, Section 7, T26N, R12W
Gallegos Federal 26-13-1 No. 1	E ½, Section 1, T26N, R13W
Gallegos Federal 26-13-1 No. 2	W ½, Section 1, T26N, R13W
Gallegos Federal 26-13-12 No. 1	N ½, Section 12, T26N, R13W

(2) Finding paragraph 51 of Order No. R-11133 is stayed.

(3) To the extent finding paragraphs 54 and 55, and decretal paragraph 3 of Order No. R-11133 may be construed to make the Division's acceptance of a proposed method for the continued production from the WAW Fruitland Sand-Pictured Cliffs Gas Pool producing wells subject to the approval of Whiting Petroleum Corporation, those provisions are stayed.

DONE at Santa Fe, New Mexico, on the day and year herein designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

_____

Lori Wrotenbery, Director
Oil Conservation Division, and Chairman,
Oil Conservation Commission

DRAFT

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

IN THE MATTER OF:

APPLICATION OF PENDRAGON ENERGY PARTNERS, INC., PENDRAGON RESOURCES, L.P., And J.K. EDWARDS ASSOCIATES, INC TO CONFIRM PRODUCTION FROM THE APPROPRIATE COMMON SOURCE OF SUPPLY, SAN JUAN COUNTY, NEW MEXICO

CASE NO. 11996
ORDER NO. R-11133

ORDER OF PARTIAL STAY

THIS MATTER, having come before the Division pursuant to the Motion For Partial Stay Of Order R-11133 filed by the Applicant, Pendragon Energy Partners, Inc., et al., and the Division, being duly advised,

FINDS THAT:

(1) Pressure and production data obtained since the examiner hearing in July, 1998, as well as decline curve analyses, clearly establish that the Gallegos Fed. 26-12-6 No. 2 and the Gallegos Fed. 26-13-12 No. 1 are draining Pictured Cliffs gas reserves.

(2) Order No. R-11133 found the existence of communication between the Basin-Fruitland Coal Gas Pool and the WAW Fruitland Sand Pictured Cliffs Gas Pool. However, Order No. R-11133 did not conclusively determine either (1) the areal extent of such communication and any resulting drainage, or (2) the cause of such communication.

(3) The provisions of Order No. R-11133 requiring the shut-in of the subject Pictured Cliffs wells, while not requiring the simultaneous shut-in of the subject Fruitland Coal wells, results in waste and gross negative consequences to the owners of the Pictured Cliffs gas reserves.

(4) The subject Fruitland Coal wells should be shut-in pending the hearing **de novo** in this matter, or as otherwise ordered by the Division or the Commission.

(5) Correlative rights are not at issue in this proceeding. Correspondingly, the finding at paragraph 51 of Order No. R-11133 is an incorrect basis for administrative action in this case and is otherwise unnecessary.

(6) The findings at paragraph 54 and 55 and decretal paragraph 3 of Order No. R-11133 suggest that further proceedings before the Division on any proposed methods of future production from the subject Pictured Cliffs wells are subject to the approval of Whiting Petroleum Corporation. To the extent these provisions of the Order do so, they should be stayed.

IT IS THEREFORE ORDERED THAT:

(1) The following Basin-Fruitland Coal Gas Pool producing wells shall be immediately shut-in:

Gallegos Federal 26-12-6 No. 2	W ½, Section 6, T26N, R12W
Gallegos Federal 26-12-7 No. 1	W ½, Section 7, T26N, R12W
Gallegos Federal 26-13-1 No. 1	E ½, Section 1, T26N, R13W
Gallegos Federal 26-13-1 No. 2	W ½, Section 1, T26N, R13W
Gallegos Federal 26-13-12 No. 1	N ½, Section 12, T26N, R13W

(2) Finding paragraph 51 of Order No. R-11133 is stayed.

(3) To the extent finding paragraphs 54 and 55, and decretal paragraph 3 of Order No. R-11133 may be construed to make the Division's acceptance of a proposed method for the continued production from the WAW Fruitland Sand-Pictured Cliffs Gas Pool producing wells subject to the approval of Whiting Petroleum Corporation, those provisions are stayed.

DONE at Santa Fe, New Mexico, on the day and year herein designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

_____

Lori Wrotenbery, Director
Oil Conservation Division, and Chairman,
Oil Conservation Commission

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION

IN THE MATTER OF:

APPLICATION OF PENDRAGON ENERGY PARTNERS, INC., PENDRAGON RESOURCES, L.P., And J.K. EDWARDS ASSOCIATES, INC TO CONFIRM PRODUCTION FROM THE APPROPRIATE COMMON SOURCE OF SUPPLY, SAN JUAN COUNTY, NEW MEXICO

CASE NO. 11996
ORDER NO. R-11133

MOTION FOR PARTIAL STAY OF ORDER R-11133

Pendragon Energy Partners, Inc., Pendragon Resources, L.P. and Edwards Energy Corporation[1], (together, "Pendragon"), by and through their undersigned counsel and in conformance with Division Memorandum 3-85, move that the Division and/or Commission enter its order staying certain provisions of Order R-11133 entered on February 5, 1999 to the extent that it requires the shut-in of all of the Applicant's Pictured Cliffs wells without requiring the simultaneous shut-in of all of the affected Fruitland Coal wells. Alternatively, the immediate shut-in of at least two of the coal wells, the Whiting Petroleum Corporation Gallegos Fed. 26-12-6 No. 2[2] and the Gallegos Fed. 26-13-12 No. 1[3] should be ordered. The shut-in under either alternative should take effect immediately pending further proceedings by the Division and the hearing **de novo** by the Commission. Pendragon also submits that additional provisions of Order R-11133 constitute an incorrect basis for regulatory action and operate as an improper delegation

[1] Formerly J.K. Edwards and Associates, Inc.
[2] 886' FSL & 1475' FWL, Unit N, Section 6, T-26-N, R-12-W

of the Division's authority. All of these provisions of the Order must be stayed for the following reasons:

(1) Pressure and production data obtained since the July, 1998 examiner hearing in this case clearly establish the ongoing drainage of gas from the Pictured Cliffs formation by two or more of the referenced Fruitland Coal wells. Consequently, the immediate shut-in of the Fruitland coal wells is mandated. (2) The correlative rights finding at paragraph 51 in Order R-11133 is an incorrect basis for administrative action in this case. (3) Certain provisions of Order R-11133 constitute an unlawful delegation of the Division's authority to a private party.

A partial stay is necessary to, among other reasons, prevent waste and gross negative consequences. Because of the specific circumstances here, action on the stay should not be deferred pending the hearing **de novo** in this case.

BACKGROUND FACTS

In 1992, Maralex Resources, Inc. acquired the operating rights to the Fruitland Coal Gas formation in the general area of the WAW field in San Juan County. Maralex acquired it's Fruitland Coal formation rights from its predecessor in interest, Merrion and Bayless Oil and Gas Corporation. Shortly after acquiring it's interests, Maralex drilled and completed its wells in a number of coal stringers in the Fruitland formation and performed a series of rather heavy and aggressive fracture stimulation treatments on it's wells. The frac jobs performed on the coal seams consisted of fracture fluid volumes on the average of 41,030 gallons at proppant weights averaging 72,656 pounds, injected at treating weights ranging between 45-60 BPM.[4]

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[3] 1919' FNL & 1021' FEL, Unit H, Section 12, T-26-N, R-13-W

[4] In the case of the Gallegos Federal 26-12-6 No. 2, the Maralex frac job consisted of a fracture fluid volume of 81,025 gallons with a 121,700 pound proppant weight injected at treating rates of between 45-60 BPM.

In 1994, after Maralex had applied it's heavy and aggressive frac jobs on its coal wells, Merrion and Bayless assigned its remaining rights below the base of the Fruitland Coal formation to the base of the Pictured Cliffs formation to J.K. Edwards and Associates, Inc. The assignment of the Pictured Cliffs rights covered acreage that is in close proximity to, and in most cases is overlain by the Fruitland coal rights owned by Maralex. (See Exhibit 1.) Edwards subsequently assigned a majority of its interests to Pendragon, and Pendragon subsequently became operator of these Pictured Cliffs properties.

Years before assigning its Pictured Cliffs rights, Merrion and Bayless had drilled and completed a number of wells in that formation. In some cases, Merrion had performed acid jobs or fracture stimulation treatments on its Pictured Cliffs wells. When Edwards/Pendragon acquired the wells, it performed additional stimulation treatments. Two of the wells received acid treatments and frac jobs were applied to four of the wells. Compared to the heavy and uncontrolled frac jobs Maralex had applied to the coal stringers, the Edwards/Pendragon frac jobs were substantially lighter and much more precise.[5]

Approximately two years ago, Whiting and Maralex involved Pendragon in discussions before the Division to address a perceived problem of communication between the Pictured Cliffs formation in the WAW Fruitland Pictured Cliffs pool and the Basin-Fruitland coal formation. At the same time, Whiting and Maralex filed a formal Application[6] with the Division alleging, generally that the drilling and fracture stimulation operations in the Pictured Cliffs formation had caused that formation to become communicated with the Basin Fruitland coal

[5] The foam fracs specifically designed for the Pictured Cliffs wells were applied at fluid volumes averaging 31,248 gallons at proppant weights averaging 38,421 pounds injected at treating rates ranging from between 22 to 34 BPM.

[6] NMOCD Case No. 11921; Application of Whiting Petroleum Corporation and Maralex Resources, Inc. For An Order Shutting In, Limiting Production From, or Approving Downhole Commingling In Certain Wells, San Juan County, New Mexico.

formation and that Pendragon's Pictured Cliffs wells were draining reserves owned by Whiting and the other interest owners in it's wells. However, on May 26, 1998, Whiting and Maralex suddenly attempted to avoid the Division's jurisdiction over the dispute and instead filed suit in District Court under the same basic allegations. Pendragon simultaneously filed its application with the Division in this case. In the meantime, before the Division could convene a hearing in this matter, Whiting and Maralex obtained a preliminary injunction from the District Court, shutting in four of Pendragon's Pictured Cliffs wells.[7] However, pursuant to separate motions, the Court entered a ruling deferring to the Division's jurisdiction and expertise over the central issues in dispute and there has been little or no activity in the court proceeding since.

Pendragon's application proceeded to hearing before the Division's examiner on July 28, 1998. More than six months later, on February 5, 1999, the Division issued Order No. R-11133 in this case. (Exhibit 2) Among other things, the Order found that the there was indeed communication between the two formations affecting some, but not all the Fruitland formation wells. However, all of the Pictured Cliffs wells were ordered shut-in. The Order further determined that the Pictured Cliffs had been depleted, but invited Pendragon to propose a method for the future production of its Pictured Cliffs reserves exclusively from that formation. The Order did not, however, provide for the simultaneous shut-in of the Fruitland Coal wells. Both parties have filed applications for a hearing de novo.

POINT I: DRAINAGE

THE FRUITLAND COAL WELLS ARE DRAINING PICTURED CLIFFS GAS

The production of Pictured Cliffs formation gas reserves by at least two of the Fruitland Coal formation wells is occurring now. The Division must take action to maintain the status quo

[7] The preliminary injunction Order was based solely on evidence produced by Whiting and Maralex. Time constraints prevented Pendragon from presenting any evidence at the preliminary injunction hearing.

and to prevent the further drainage of gas from the WAW Fruitland Sand-Pictured Cliffs pool by ordering the immediate shut-in of the coal wells. This matter should not be deferred pending the **de novo** hearing in this case.

Post shut-in production and pressure data obtained following the examiner hearing last July definitively establish that there is ongoing drainage of Pictured Cliffs gas reserves by the Whiting Gallegos Fed. 26-12-6 No. 2 and the Fed. 26-13-12 No. 1. Too, a number of inconsistent and uncertain findings in the Order give rise to the possibility that drainage may be occurring over an even wider area. As a consequence, the provisions of Order R-11133 allowing continued production from the Fruitland coal wells in the face of demonstrable drainage from the shut-in pictured Cliffs wells violates a number of the Division's rules and regulations, results in waste, and constitutes gross negative consequences for the interest owners in the Pictured Cliffs formation.

The data obtained since the July, 1998 hearing establishes the following:

Compelling evidence of the ongoing drainage of Pictured Cliffs reserves by the coal wells is demonstrated by Exhibit 3 showing shut in pressures from the Chaco No. 5[8]. Offsetting this Pictured Cliffs well on the east and south are the Gallegos Fed. 26-1-6 No. 2[9] and the Gallegos Fed. 26-13-12 No. 1[10]. These two coal wells are virtually equidistant from the Chaco No. 5. Pressures from all three wells were taken since July 1, 1998.

Consistent with the findings in Order R-11133, where two zones are presumed to be in communication, the shut-in pressures at the surface should reflect the pressures of the formation with the lowest pressure; the Pictured Cliffs formation in this case. Conversely, absent communication with another zone, pressures would be expected to remain constant. Since the

[8] 790' FSL & 790 FEL, Unit P, Section 1, T-26-N, R013-W
[9] 886' FSL & 1475' FWL, Unit N, Section 6, T-26-N, R-12W

Chaco No. 5 was shut-in on June 30, 1998, pressures in the Pictured Cliffs have shown a steady decline while the offsetting Gallegos coal wells have continued to produce. To date, as plotted on Exhibit 3, rather than remaining constant, the pressures in the Pictured Cliffs have decreased approximately 9 psi.

As this evidence irrefutably demonstrates, there can be only one explanation for this pressure decline: the two coal wells have been draining Pictured Cliffs gas reserves and they continue to do so.

In effect, then, Order R-11133 operates to allow the improper production of Pictured Cliffs gas reserves by the operator of non-Pictured Cliffs wells in direct violation of the "strict" prohibitions of Rule 303.A of the Divisions Rules.[11]

The disparate and unfair operation of the Order is further complicated by additional inconsistencies:

As reflected in the findings contained in Order R-11133, the Division relied primarily on pressure data evidence and production and gas reserves data to determine, generally, the existence of communication between the Pictured Cliffs and Fruitland Coal formations.[12] However, Order R-11133 contains a number of findings that are at odds with one another and reflects that the Division has not made a definitive determination of the cause of the communication.

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10 1919' FNL & 1021' FEL, Unit H, Section 12, T-26-N, R-12-W

[11] 19 NMAC 15.N.303.A: SEGREGATION REQUIRED. (1) Each pool shall be produced as a single common source of supply ...and the production therefrom shall at all times be actually segregated, and the commingling or confusion of such production...with the production from any other pool or pools is strictly prohibited. (emphasis added)

Paragraph 45 of the Order found:

> There is sufficient evidence to establish that the fracture stimulations performed on the Chaco Wells No. 1, 4 and 5 resulted in the fracturing of the Fruitland Coal formation within the Basin-Fruitland Coal Gas Pool.

On the other hand, at Paragraph 47, the Division found:

> There is not sufficient evidence to establish that the fracture stimulations performed on the Gallegos Federal wells resulted in the fracturing of the Pictured Cliffs formation within the WAW-Fruitland Sand Pictured Cliffs Gas Pool, although, given the close proximity of the Pictured Cliffs formation to the Fruitland Coal formation, and given the parameters utilized by Whiting in the fracture treatment of its wells, it is possible that the fracture stimulations performed on the Gallegos Federal wells did result in the fracturing of the Pictured Cliffs formation. (emphasis added)

The ambivalence of the findings on the issue of the causation of communication is compounded by additional inconsistencies with respect to the extent of the communication:

At paragraph 48, the order noted that the "preponderance" of the evidence demonstrated that the Chaco Wells No. 1, 2R, 4, 5 1-J and 2-J are in communication with the Basin-Fruitland Coal Gas Pool "by virtue of acidization and/or fracture stimulation". However, at paragraph 49, it was determined that the communication "appears not to have affected production from the Chaco Limited Wells No. 1-J and 2-J." Despite these inconsistent findings, all of the Chaco wells were ordered shut-in in any event while production from all the Fruitland coal wells is allowed to continue unabated. (Order R-11133, Decretal paragraph 3).

Additional post-hearing pressure data casts further doubt on the propriety of the operation of the Order: Exhibit 4 is a plot of corrected casing pressures for the Chaco 1-J completed in the Pictured Cliffs and the closest Fruitland Coal well, the Gallegos Fed. 26-14-1-2, located only 570'apart. Shut-in pressures collected since July 1st show absolutely no correlation between the

[12] Much of the data were submitted by Whiting after the examiner hearing. For instance, Finding 30(h)

pressures in the two wells.[13] The notion that these two wells are in communication is refuted by this data. Yet, the Chaco 1-J is ordered shut-in nevertheless.

Similar evidence is repeated in Exhibit 5 plotting post-hearing casing pressures for the Chaco 2-R and the Gallegos Fed. 26-12-7-1. These two wells offset one another by some 700', yet there is clearly no correlation between the pressures in these wells. The significant fluctuations in the pressures for the producing coal well stand in stark contrast to the moderate and steady incline in the pressures in the shut-in Pictured Cliffs well. It is clear the Chaco 2-R is not experiencing interference from the coal well, or vice-versa.[14]

Equally telling evidence of the fact of ongoing drainage from the Pictured Cliffs formation is demonstrated by Fruitland formation well performance and decline curve analyses based on current information. The attached Exhibit 6 tabulates cumulative gas production, estimated remaining reserves,[15] ultimate recovery, and percent of reserves recovered based on updated cumulative production, as well as estimated ultimate recovery. As post-hearing data shows, the offending Fruitland coal wells have already recovered more gas than is available from their 320 acre spacing units in the coal formation. In the course of these proceedings, Whiting and Maralex have maintained that their estimates of gas-in-place for the coal formation are based on an initial gas content of 110 scf/ton. Accordingly, for the four coal wells analyzed,[16] the average gas-in-place for each 320 acre unit was determined to be 1,243,775 MCF.[17] Based on these volumetrics, the Fruitland coal wells have already produced an average of 81.7% of their

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relied on water/gas ratio data calculated several weeks later.

[13] The Chaco 1-J pressures is additional proof that the Pictured Cliffs sandstone is not pressure depleted, contrary to findings 30(a) and 33.

[14] This pressure increase in the shut-in PC well supports the conclusion that the formation is being recharged from a source other than the Fruitland Coal formation.

[15] Revised to account for additional data.

[16] The Gallegos Fed. 226-13-1 No. 2 was not included due to its distance and its completion in the upper coals.

[17] These estimates are in line with those of Whiting/Maralex.

reserves, and at the current production rates, (Exhibit 7), will ultimately recover more than 144.9% of calculated reserves. Hence, the Fruitland coal wells have produced more gas than would be expected from their respective 320 acre units and, based on forecasted recoveries, will produce significantly more gas than is available in just the Fruitland coal formation. It is obvious the Fruitland coal wells are producing from a separate source of supply: the Pictured Cliffs formation.

The fact of demonstrable, ongoing drainage, the various ambivalent findings and the lack of clear resolution on the issue of the cause of the communication seriously undermines the Order's decretal portions requiring the temporary shut-in of production from only one of the two affected formations. Compliance with the Order by one operator, but not the other, results in the ongoing violation of Section 70-2-12 B(2) and Division Rule 303.A. It is only by requiring the simultaneous shut-in of the Fruitland coal wells that the Division can maintain the status quo, prevent gross negative consequences and otherwise fulfill its duties under Sections 70-2-6 and 70-2-11 of the Oil and Gas Act.

POINT II: THE CORRELATIVE RIGHTS FINDING

At paragraph 51 of the Order, the Division found that communication between the two separate pools has resulted in a violation of correlative rights. Correlative rights have not been at issue in this particular proceeding and the inclusion of this new subject matter in the findings of Order R-11133 appears to be in error. The Application in this case did not invoke the Division's jurisdiction over correlative rights; Neither does the record testimony make a single reference to correlative rights.[18] Rather, the Application specifically sought the exercise of Division authority under 19 NMAC 15.N.203.A and Rule 3 of the Special Rules and Regulation for the Basin-

Fruitland Coal Gas Pool. If the finding is not stayed or clarified, then the introduction of the correlative rights issue will have a significant bearing on future proceedings in these matters.

The issue of the respective ownership of the parties is not in dispute. The parties agree that Pendragon owns no interests in the Fruitland Coal formation and Whiting/Maralex likewise own no Pictured Cliffs rights underlying the subject lands. (Finding paragraphs 9 and 10). Their ownership conforms to the Division's classification of these formations as completely separate pools and consequently, the concept of correlative rights is not implicated. Moreover, the finding at paragraph 51, if allowed to stand, would be inconsistent with the Division's earlier orders establishing the Basin-Fruitland Coal Gas Pool (Order No. R-8768) and the WAW Fruitland Sand-Pictured Cliffs Gas Pool (Orders No. R-4260 and R-8769). Further, the legal effect of the finding is tantamount to a restatement of the pool rules for the affected pools, a matter more suited for a pool-rules rulemaking proceeding.

More precisely, the Division's authority to exercise jurisdiction in this particular matter is derived from the agency's statutory mandate to prevent waste and maintain the segregation between different common sources of supply (Sections 70-2-2 and 70-2-12 B[2]) as well as in the administrative application thereof under Rule 19 NMAC 15.N.303.A of the Division's rules and under Rules 2, 3 and 12 of the Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool (Order No. R-8768-A). There is a separate and adequate basis for the exercise of agency jurisdiction in this case and consequently the invocation of the correlative rights issue should be avoided. Otherwise, the unnecessary misapplication of the correlative rights doctrine holds the potential to adversely affect other vested property rights.

[18] Section 70-2-13 provides, in part, that "[t]he director of the Division shall base the decision rendered in any matter or proceeding heard by an examiner upon the transcript of testimony and record made by or under the supervision of the examiner..."

In view of the above, it appears the inclusion of the correlative rights finding was inadvertent. If not, then the introduction of this new issue will have a significant bearing on the scope of the hearing de novo in this case. Clarification is requested so that the parties can plan and prepare for this hearing and other proceedings that may be brought before the Division or the Commission on these matters. As correlative rights are not at issue, then this particular finding should be stayed.

POINT III: THE IMPROPER DELEGATION OF AUTHORITY

Portions of Order R-11133 operate as an improper delegation of the Division's statutory responsibility and authority. The Order contemplates further Division-level proceedings in this case whereby Pendragon may propose a method for the continued production exclusively from the WAW Fruitland Sand-Pictured Cliffs Gas Pool. (Paragraphs 54 and 55). However, the order expressly makes the production method proposal subject to the acceptance and approval of the Division and Whiting.

While Whiting's participation in any further proceedings before the Division on the future production of Pictured Cliffs reserves is certainly appropriate, providing a private party with the power to either approve or disapprove another operator's method of production is an inappropriate delegation of the Division's statutory authority under the New Mexico Oil and Gas Act.

The Order is unlawful in three respects. First, it delegates decision-making authority to a private entity. This is impermissible under generally accepted standards controlling agency action. Second, the Order delegates agency authority to an entity which is both biased against Pendragon, and, as a competitor of Pendragon's, has interests which directly conflict with those of Pendragon's. Third, the delegation of authority contained in the Order is beyond the scope of

the statutory authority granted to the Division by the Oil and Gas Act. Nowhere in the Act is in mentioned, or indeed even contemplated that a private, competing entity would be able to wield regulatory power over another party.

Administrative bodies and officers cannot delegate power, authority and functions which under the law may be exercised only by them, which are quasi-judicial in character, or which requires the exercise of judgment. Kerr-McGee Corp. v. New Mexico Environmental Improvement Board, 97 N.M. 88, 97, 637 P.2d 38, 47 (Ct.App. 1981); see also Voth v. Fisher, 407 P.2d 848, 850 (Ore. 1965) (once authority has been delegated to an administrative agency, that authority cannot be redelgated by agency to other entity). Moreover, generally, an agency cannot delegate authority to private parties, "particularly to entities whose objectivity may be questioned on grounds of conflict of interest." Pastachio Group of Association of Food Industries, Inc. v. United States, 671 F. Supp. 31, 35 (U.S. C.I.T. 1987) citing Sierra Club v. Sigler, 695 F.2d 597, 963 n.3 (5th Cir. 1983); 2 Am.Jur.2d § 73 at 96.

Whiting is obviously a biased and interested entity in that it is a competitor of Pendragon's. To place decision-making authority in its hands is to do precisely what the New Mexico courts have clearly prohibited, that is, it constitutes decision making by an entity which cannot possibly be "impartial and unconcerned in the result." Pendragon's Constitutional guarantee of due process would be violated as a result.

The practical effect of allowing Whiting to approve or disapprove of an operating practice is an impermissible delegation of the Division's statutory responsibility. Accordingly, to the extent the provisions of Order R-11133 purport to do so,[19] they must be stayed.

[19] Finding paragraphs 54 and 55, and decretal paragraph 3.

CONCLUSION

For the above reasons, the Division should enter its order immediately staying those provisions of Order R-11133 requiring the shut-in of the Chaco wells without simultaneously ordering the shut-in all of the referenced Fruitland coal wells, or, alternatively, shutting-in at least the Gallegos Fed. 26-12-6 No. 2 and the Gallegos Fed. 26-13-12 No. 1. In addition, the Division should stay those provisions of Order R-11133 with respect to (1) the finding on correlative rights, and (2) the delegation of the Division's statutory authority to a private party.

Respectfully submitted,

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By: _____

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CERTIFICATE OF SERVICE

I hereby certify that I have caused a true and correct copy of the foregoing to be mailed on this 1 day of March, 1999 to the following:

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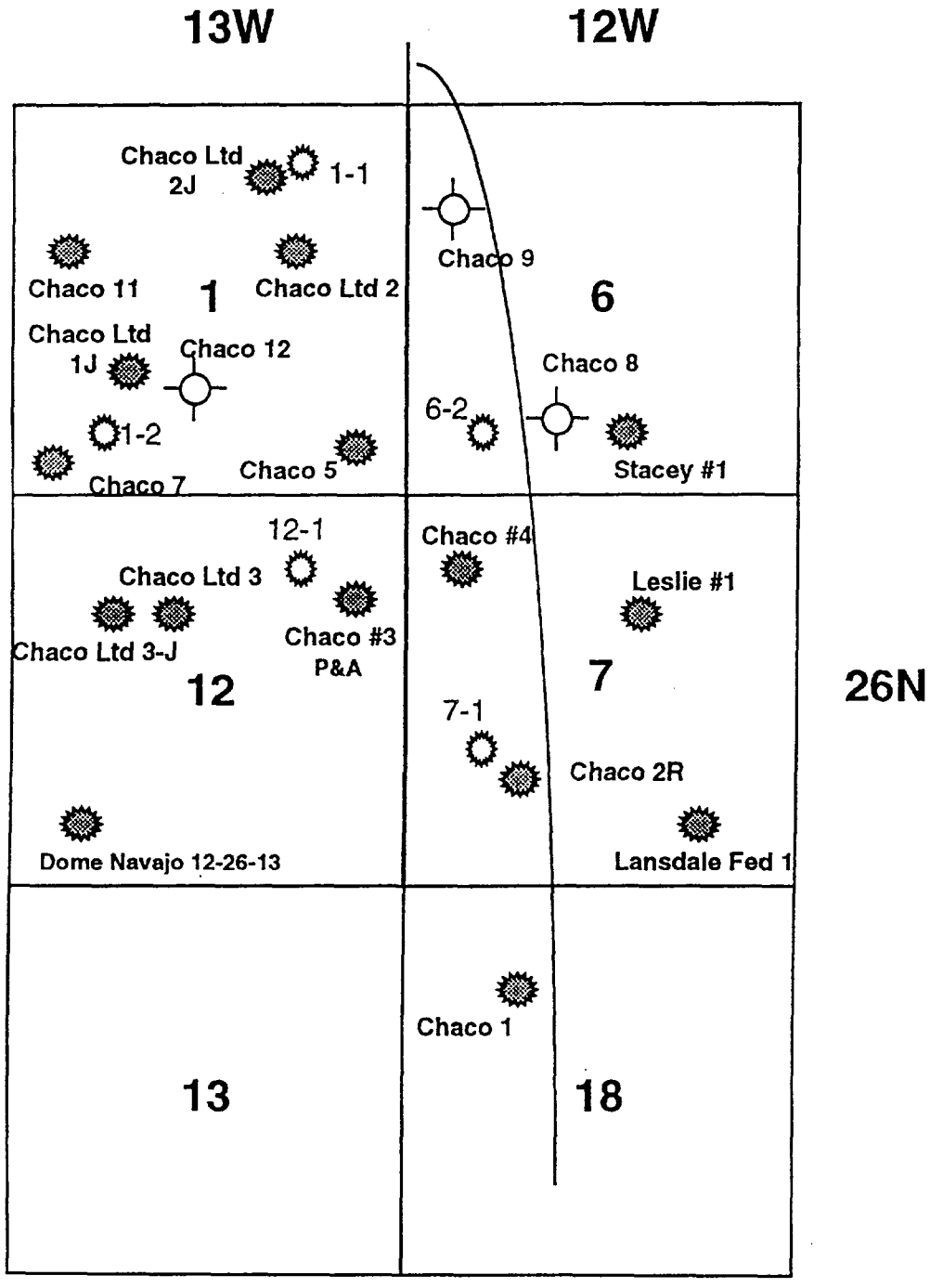


Fruitland Coals

Pictured Cliffs

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 11996
Order No. R-11133

APPLICATION OF PENDRAGON ENERGY PARTNERS, INC. AND J. K. EDWARDS ASSOCIATES, INC. TO CONFIRM PRODUCTION FROM THE APPROPRIATE COMMON SOURCE OF SUPPLY, SAN JUAN COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on July 28-30, 1998, at Santa Fe, New Mexico, before Examiner David R. Catanach.

NOW, on this 5th day of February, 1999, the Division Director, having considered the testimony, the record and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given and the Division has jurisdiction of this case and its subject matter.

(2) The applicants, Pendragon Energy Partners, Inc., and J. K. Edwards Associates, Inc., (collectively "Pendragon"), pursuant to Rule (3) of the Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool set forth in Division Order No. R-8768, as amended, seek an order confirming that the following described wells, completed within the vertical limits of the WAW Fruitland Sand-Pictured Cliffs Gas Pool or the Basin-Fruitland Coal Gas Pool, are producing from the appropriate common source of supply and providing further relief as the Division deems necessary:

wells") previously drilled to and completed in the Pictured Cliffs formation at the locations described below (the "Subject Lands") on the following respective dates:

Well Name	Location	Date
Chaco No. 1	NW¼, Section 18, T26N, R12W	March, 1977
Chaco No. 2R	SW¼, Section 7, T26N, R12W	January, 1980
Chaco No. 4	NW¼, Section 7, T26N, R12W	May, 1977
Chaco No. 5	SE¼, Section 1, T26N, R13W	May, 1977
Chaco Ltd. No. 1J	SW¼, Section 1, T26N, R13W	April, 1982
Chaco Ltd. No. 2J	NE¼, Section 1, T26N, R13W	May, 1979

(4) By Order No. R-8768 and No. R-8768-A, the Division created a new pool in all or parts of San Juan, Rio Arriba, McKinley and Sandoval Counties New Mexico classified as a gas pool for the production from the Fruitland Coal seams and designated the pool as the Basin-Fruitland Coal Gas Pool. The wells and the lands that are the subject of this proceeding are located within the horizontal limits of the Basin-Fruitland Coal Gas Pool as defined by Order R-8768 in R-8768-A. The Order also established the vertical limits of the pool by reference to the Amoco Schnieder Gas Com "E" well No. 1 located in Section 28, T-32-N, R-10-W.

(5) By Order No. R-8769 entered by the New Mexico Oil Conservation Division on October 17, 1988 in Case No. 9421 and subsequently amended by Order No. R-8768-A, nunc pro tunc, the Division defined the vertical limits of the WAW Fruitland-Pictured Cliffs Pool as follows:

> The vertical limits of the WAW Fruitland-Pictured Cliffs Pool in San Juan County, New Mexico are hereby contracted to include only the Pictured Cliffs formation and the sandstone interval of the Fruitland formation and said pool is hereby redesignated as the WAW Fruitland Sand-Pictured Cliffs Pool.

(6) At the hearing in this matter, Pendragon Resources, L.P entered its appearance in support of the Application. Whiting Petroleum Corporation and Maralex Resources, Inc. also entered their appearance and presented evidence in opposition to the application.

(7) Whiting Petroleum Corporation and Maralex Resources Inc. both own working interests dedicated to the following Fruitland Coal Wells (the "Subject Coal Wells") operated by Maralex and drilled in 1992 and which were frac'd by Maralex in 1993:

Well Name	Location
Gallegos Federal 26-12-6 No. 2	W½, Section 6, T26N, R12W
Gallegos Federal 26-12-7 No. 1	W½, Section 7, T26N, R12W
Gallegos Federal 26-13-1 No. 1	E½, Section 1, T26N, R13W
Gallegos Federal 26-13-1 No. 2	W½, Section 1, T26N, R13W

(API No. 30-045-28903) Section 12, T-26N, R-13W

(3) Whiting Petroleum Corporation and Maralex Resources, Inc., (collectively "Whiting"), interest owners within the Gallegos Federal 26-12-6 No. 2, 26-12-7 No. 1, 26-13-1 No. 1, 26-13-1 No. 2 and 26-13-12 No. 1, appeared at the hearing in opposition to the application and to present evidence and testimony to support their position that the Pendragon Chaco wells, described in Finding No. (2) above, are producing:

a) from a sandstone interval located within the Fruitland formation; and

b) coal gas from the Basin-Fruitland Coal Gas Pool due to the establishment of communication between the Basin-Fruitland Coal and WAW Fruitland Sand-Pictured Cliffs Gas Pools within the Pendragon Chaco wellbores.

(4) Merrion Oil & Gas Corporation, an interested party, appeared and presented a statement at the conclusion of proceedings.

(5) All eleven wells that are the subject of this application are located within an area (hereinafter referred to as the "subject area") that comprises:

TOWNSHIP 26 NORTH, RANGE 12 WEST, NMPM
Section 6: W/2
Section 7: W/2
Section 18: NW/4

TOWNSHIP 26 NORTH, RANGE 13 WEST, NMPM,
Section 1: All
Section 12: N/2

(6) The "subject area" is located within the horizontal boundaries of the Basin-Fruitland Coal Gas Pool created by Division Order No. R-8768 dated October 17, 1988. The vertical limits of this pool, as defined by Ordering Paragraph (1) of Order No. R-8768, are as follows:

> "all **coal seams** within the equivalent of the stratigraphic interval from a depth of approximately 2,450 feet to 2,880 feet as shown on the Gamma Ray/Bulk Density log from Amoco Production Company's Schneider Gas Com "B" Well No. 1 located 1110 feet from the South line and 1185 feet from the West line of Section 28, Township 32 North, Range 10 West, NMPM, San Juan County, New Mexico".

(7) Order No. R-8768 further established Special Rules and Regulations for the Basin-Fruitland Coal Gas Pool including provisions for standard 320-acre gas spacing and proration units with wells to be located no closer than 790 feet from the outer boundary of the proration unit nor closer than 130 feet from any quarter section line nor closer than 10 feet from any quarter-quarter section line or subdivision inner boundary. In addition, wells are to be located in the NE/4 or SW/4 of a single governmental section.

(8) The "subject area" is also located within the horizontal boundaries of the WAW Fruitland Sand-Pictured Cliffs Gas Pool. The vertical limits of this pool comprise all of the Pictured Cliffs formation (Order No. R-4260 dated February 22, 1972) and all the **sandstone** intervals of the Fruitland formation (Order No. R-8769 dated October 17, 1988). The WAW Fruitland Sand-Pictured Cliffs Gas Pool is currently governed by [illegible] which requires standard 160-acre gas spacing and proration units with wells to be located no closer than 790 feet from the outer boundary of the spacing unit nor closer than 130 feet from any quarter-quarter section line or subdivision inner boundary.

(9) The evidence and testimony presented by both parties in this case is generally in agreement that Pendragon and Whiting received assignments of oil and gas leases in all or portions of the "subject area" from common grantors, Robert Bayless (Bayless) and Merrion Oil and Gas Corporation (Merrion), during the period from 1992-94. The assignments of rights to Whiting are as follows:

> "Operating rights from the surface of the earth to the base of the Fruitland (Coal gas) Formation subject to the terms and provisions of that certain Farmout Agreement, dated December 7, 1992 by and between Merrion Oil & Gas et al., Robert L. Bayless, Pitco Production Company, and Maralex Resources, Inc."

(10) The assignment of rights to Pendragon are as follows:

> "Leases and lands from the base of the Fruitland Coal formation to the base of the Pictured Cliffs formation."

(11) A brief history of the Pendragon wells, obtained from Division records, is described as follows:

a) the Chaco Well No. 1 was drilled by Merrion and Bayless in February, 1977 to test the Pictured Cliffs formation. The well was perforated and completed in the Pictured Cliffs formation from a depth of 1,113' to 1,139'. The well initially tested in this interval at a rate of approximately 342 MCFGD, 0 BOPD and 0 BWPD. In January, 1995, J. K. Edwards & Associates, Inc. (Edwards) became operator of the well. In January, 1995, the well was fracture stimulated in the perforated interval. In January, 1996, Pendragon became operator of the well;

b) the Chaco Well No. 2R was drilled by Merrion and Bayless in October, 1979 to test the Pictured Cliffs formation. The well was perforated and completed in the Pictured Cliffs formation from a depth of 1,132' to 1,142'. The well initially tested in this interval at a rate of approximately 150 MCFGD, 0 BOPD and 0 BWPD. In January, 1995, Edwards became operator of the well. In January, 1995, the well was fracture stimulated in the perforated interval. In January, 1996, Pendragon became operator of the well;

c) the Chaco Well No. 4 was drilled by Merrion and Bayless in April, 1977 to test the Pictured Cliffs formation. The well was perforated and completed in the Pictured Cliffs formation from a depth of 1,163' to 1,189'. The well was initially tested in this interval at a rate of approximately 480 MCFGD, 0 BOPD, and 0 BWPD. In January, 1995, Edwards became operator of the well. In January, 1995, the well was acidized with 500 gallons 7 ½ percent HCl. In May, 1995, the well was re-perforated in the interval from 1,163' to 1,189' and fracture stimulated in this interval. In January, 1996, Pendragon became operator of the well;

d) the Chaco Well No. 5 was drilled by Merrion and Bayless in April, 1977 to test the Pictured Cliffs formation. The well was perforated and completed in the Pictured Cliffs formation from a depth of 1,165' to 1,192'. The well initially tested in this interval at a rate of approximately 1029 MCFGD, 0 BOPD and 0 BWPD. In May, 1979 the well was fracture stimulated in this interval. In January, 1995, Edwards became operator of the well. In January, 1995, the well was re-perforated in the interval from 1,165' to 1,192 feet and was fracture stimulated in this interval. In January, 1996, Pendragon became operator of the well;

e) the Chaco Limited Well No. 1J was drilled by Merrion and Bayless in April, 1982 to test the Pictured Cliffs formation. The well was perforated and completed in the Pictured Cliffs formation from a depth of 1,200' to 1,209'. The well initially tested in this interval at a rate of approximately 10 MCFGD, 0 BOPD and a trace of water. In January, 1995, Edwards became operator of the well. In January, 1995, the well was acidized with 500 gallons 7 ½ percent HCl. In January, 1996, Pendragon became operator of the well; and

f) the Chaco Limited Well No. 2J was drilled by Merrion and Bayless in September, 1979 to test the Pictured Cliffs formation. The well was perforated and completed in the Pictured Cliffs formation from a depth of 1,198' to 1,202'. The well initially tested in this interval at a rate of approximately 218 MCFGD, 1 BOPD and 4 BWPD. In October, 1979, the well was fracture stimulated in this interval. In January, 1995, Edwards became operator of the well. In January, 1995, the well was acidized with 500 gallons 7 ½ percent HCl. In January, 1996, Pendragon became operator of the well.

(12) A brief history of the Whiting wells, obtained from Division records, is described as follows:

a) the Gallegos Federal 26-12-6 No. 2 was drilled by Maralex in December, 1992 to test the Basin-Fruitland Coal Gas Pool. The well was perforated and completed in the Fruitland Coal from a depth of 1,138' to 1,157'. The well was subsequently fracture stimulated in this interval. In September, 1995, Whiting became operator of the well;

b) the Gallegos Federal 26-12-7 No. 1 was drilled by Maralex in December, 1992 to test the Basin-Fruitland Coal Gas Pool. The well was perforated and completed in the Fruitland Coal from a depth of 1,131' to 1,150'. The well was subsequently fracture stimulated in this interval. In September, 1995, Whiting became operator of the well;

c) the Gallegos Federal 26-13-1 No. 1 was drilled by Maralex in December, 1992 to test the Basin-Fruitland Coal Gas Pool. The well was perforated and completed in the Fruitland Coal from a depth of 1,158' to 1,177'. The well was subsequently fracture stimulated in this interval. In September, 1995, Whiting became operator of the well;

d) the Gallegos Federal 26-13-1 No. 2 was drilled by Maralex in December, 1992 to test the Basin-Fruitland Coal Gas Pool. The well was perforated and completed in the Fruitland Coal from a depth of 1,047' to 1,208'. The well was subsequently fracture stimulated in this interval. In September, 1995, Whiting became operator of the well; and

e) the Gallegos Federal 26-13-12 No. 1 was drilled by Maralex in December, 1992 to test the Basin-Fruitland Coal Gas Pool. The well was perforated and completed in the Fruitland Coal from a depth of 1,179' to 1,197'. The well was subsequently fracture stimulated in this interval. In September, 1995, Whiting became operator of the well.

Fruitland Sand vs. Pictured Cliffs Sand Geologic Issue

(13) In its Chaco Wells No. 1, 4, 5 and its Chaco Limited Well No. 2J, Pendragon is producing from two separate sandstone intervals, hereinafter referred to as the "Upper Sandstone" and "Lower Sandstone" intervals and in its Chaco Well No. 2R and Chaco Limited Well No. 1J, Pendragon is producing only from the "Lower Sandstone" interval, all described as follows. It is the position of Pendragon that the top of the Pictured Cliffs formation occurs in this area at or above the top of the "Upper Sandstone" interval.

Well Name & Number	"Upper Sandstone" Perforations	"Lower Sandstone" Perforations
Chaco Well No. 1	1,113'-1,119'	1,134'-1,139'
Chaco Well No. 4	1,163-1,166'	1,173'-1,189'
Chaco Well No. 5	1,165'-1,169'	1,174'-1,192'
Chaco Limited Well No. 2J	1,186'-1,188'	1,200'-1,202'
Chaco Well No. 2R	None	1,132'-1,142'
Chaco Limited Well No. 1J	None	1,200'-1,209'

(14) Whiting agrees that the "Lower Sandstone" interval is within the Pictured Cliffs formation; however, it contends that the top of the Pictured Cliffs formation occurs in this area at the top of the "Lower Sandstone" interval.

(15) Pendragon presented the following geologic evidence and testimony to support its pick for the top of the Pictured Cliffs formation:

a) the perforations in its Chaco wells were made by Pendragon's predecessors in interest, Merrion and Bayless, and were reported to the Division and to the Bureau of Land Management (BLM) on the appropriate well completion forms. All forms filed by Merrion and Bayless indicate that all perforations in the Chaco wells are within the Pictured Cliffs formation. Casing collar survey logs performed in May and June, 1998 establish that none of the Chaco wells were perforated in or re-perforated in the Fruitland Coal formation;

b) the discovery well for the WAW Fruitland Sand-Pictured Cliffs Gas Pool was the WAW Well No. 1, located in Unit L of Section 32, Township 27 North, Range 13 West, NMPM, which was completed on June 2[illegible], 1970 by Dugan Production Corporation ("Dugan"). Dugan picked the top of the Pictured Cliffs formation at a depth of [illegible] feet, which is above the "Upper Sandstone" interval;

c) the discovery well for the Nipp-Pictured Cliffs Gas Pool, located directly southeast of the WAW Fruitland Sand-Pictured Cliffs Gas Pool, was the Chaco Plant Well No. 1, located in Unit O of Section 17, Township 26 North, Range 12 West, NMPM, which was completed in April, 1975 by Dugan. Dugan picked the top of the Pictured Cliffs formation at a depth of 1,132 feet, which is above the "Upper Sandstone" interval;

d) the term "stratigraphic equivalent" as used to define the vertical limits of the Basin-Fruitland Coal Gas Pool essentially means "the same kind of rock material." The primary distinguishing characteristic of the Pictured Cliffs sandstone is its creation in a marine depositional environment. Conversely, the Fruitland Coal and the Fruitland Sandstone were deposited in a non-marine depositional environment;

e) Pendragon's isopach map of the "Upper Sandstone" interval shows the occurrence of that sandstone along the shoreline trending from a northwest to southeast direction in a barrier bar marine littoral environment. The "Upper Sandstone" interval appears as a classic shoreline or chenier-type sand grading from 0 to approximately 13 feet thick toward the northeast where it coalesces into the "Lower Sandstone" or main body of the Pictured Cliffs formation as the sand trends from the shoreline environment on the southwest toward the center of the San Juan Basin to the northeast. The "Upper Sandstone" interval is also continuous in character and correlates over a large area covering portions of four townships;

f) the core analysis for the Lansdale Federal Well No. 1, located in Unit P of Section 7, Township 26 North, Range 12 West, NMPM, establishes that the grain size and sorting throughout the "Upper Sandstone" interval are uniform, which is consistent with a marine depositional environment. The core analysis further indicates that the sand appearing in the "Upper Sandstone" and "Lower Sandstone" intervals is grey, fine-grained, with little variation in clay content, consistent with a marine sand that has been laterally transported to the point where the energy available sorts the sand into uniform size. Sand sorting characteristics of this sort are not consistent with a fluvial deposit with graded bedding and poor sorting downward;

g) the Fruitland sands are deposited along a trend from the SW part of the northeast on a channelized basis and those sands thin towards the northeast to the edge of the Pictured Cliffs sandstone body. The Fruitland sands are consistently recognized as non-marine (continental) deposits such as fluvial channel, deltaic-distributary channels and other landward deposits. The Fruitland formation is the non-marine facies consisting of inter-bedded sandstone, mudstone and coal beds deposited landward of the marine facies of the Pictured Cliffs sandstone; and

h) approximately thirty-four (34) wells in this area have been perforated in the "Upper Sandstone" interval in conjunction with other perforated sandstone intervals within the Pictured Cliffs formation. These perforations, which were reported to the Division and to the BLM as being Pictured Cliffs completions, are consistent with the picks for the top of the Pictured Cliffs formation from the WAW Well No. 1 and the Chaco Plant Well No. 1, the discovery wells for the WAW Fruitland Sand-Pictured Cliffs and Nipp-Pictured Cliffs Gas Pools, respectively. This evidence establishes that Pendragon's picks for the top of the Pictured Cliffs formation in its Chaco wells are consistent with those of other operators in this area.

(16) Whiting presented the following geologic evidence and testimony to support its pick for the top of the Pictured Cliffs formation:

a) there are two continuous coal seams within the lower portion of the Fruitland formation in this area. The upper coal seam, characterized by Whiting as the "B" Coal, is approximately 20 feet thick throughout the subject area. The lower coal seam, characterized by Whiting as the "Basal" Coal, varies from 2 to 4 feet thick and overlies the more massive Pictured Cliffs marine sandstone ("Lower Sandstone" interval);

b) the "Upper Sandstone" interval, which is between 2 to 7 feet thick in this area and is located between the "B" Coal and the "Basal" Coal, is a Fruitland sand within the lower portion of the Fruitland formation;

c) Whiting's depositional model, as determined from mapping the various sands in the Fruitland and Pictured Cliffs formations, suggests that the "Upper Sandstone" interval was formed by inland river deposits which filled the area in-between abandoned beach ridges. This type of depositional model suggests that the "Upper Sandstone" interval was deposited in a non-marine environment;

d) a marine environment does not provide the conditions necessary for the development of coal. Coal formation and deposition is representative of an inland environment;

e) due to bioturbation in a lagoonal (marine) depositional environment, the "Upper Sandstone" interval should not exhibit high permeability reservoir type sand; and

f) geologic literature suggests that the top of the Pictured Cliffs formation is usually placed at the top of the massive sandstone below the lower-most coal of the Fruitland formation. Whiting's interpretation of the top of the Pictured Cliffs formation is consistent with such geologic literature.

(17) Upon consideration of the geologic evidence and testimony presented by both parties in this case the ***Division finds that***:

a) the Pictured Cliffs formation was deposited in a marine environment. The Fruitland formation was deposited in a non-marine or inland terrestrial environment (i.e. fluvial channels, deltaic distributary channels, etc.). Both parties are generally in agreement that these criteria should be used in differentiating between the two formations

in this area;

b) mapping of the "Upper Sandstone" interval shows a fairly uniform, fairly continuous "sheet" type sand body that appears to trend along a shoreline in a northwest to southeast direction. In contrast, the Fruitland formation is characterized by northeast to southwest trending fluvial and lower coastal-plain deposits;

c) the only available core analysis data (obtained from the Lansdale Federal Well No. 1) shows a similarity in physical description between the sands within the "Upper Sandstone" and "Lower Sandstone" intervals, and shows uniform grain size and sorting within the "Upper Sandstone" interval [illegible] deposited in a marine environment;

d) the "Upper Sandstone" interval coalesces into the "Lower Sandstone" or main body of the Pictured Cliffs formation as the sand trends from the shoreline environment on the southwest toward the center of the San Juan Basin to the northeast which may be indicative of the same depositional environment;

e) the "Upper Sandstone" interval has been consistently picked by various other operators throughout the developmental history of this area to be contained within the Pictured Cliffs formation. Various regulatory agencies including the Division's Aztec District Office and the BLM have recognized and concurred with these operator's picks;

f) there is sufficient geologic evidence and testimony to adequately explain the development of the small coal seam below the "Upper Sandstone" interval as occurring in a marine depositional environment; and

g) there is insufficient geologic evidence to support Whiting's depositional model which indicates the "Upper Sandstone" interval to be part of the Fruitland formation.

(18) There is sufficient geologic evidence to establish that the "Upper Sandstone" interval is located within the Pictured Cliffs formation, WAW Fruitland Sand-Pictured Cliffs Gas Pool.

(19) Pendragon's Chaco Wells No. 1, 2R, 4, 5 and Chaco Limited Wells No. 1J and 2J are perforated within the appropriate common source of supply, being the WAW Fruitland Sand-Pictured Cliffs Gas Pool.

Issues Concerning Possible Communication Between the Fruitland Coal and Pictured Cliffs Formations within the Chaco Wells

(20) Whiting contends that through the process of acidizing and/or fracture stimulation, Pendragon has established communication between the Basin-Fruitland Coal and WAW Fruitland Sand-Pictured Cliffs Gas Pools within the Chaco Wells No. 1, 2R, 4, 5 and the Chaco Limited Wells No. 1J and 2J. Whiting further contends that as a result of this communication, Pendragon is producing significant amounts of coal gas reserves through its Chaco wells. In support of its position, Whiting presented extensive geologic and engineering data.

(21) Pendragon contends that the acidizing and fracture stimulation conducted on its Chaco wells did not result in communication between the Basin-Fruitland Coal and WAW Fruitland Sand-Pictured Cliffs Gas Pools, and that the gas reserves currently being produced from its Chaco wells originate from the Pictured Cliffs formation.

Pressure and Production Data

(22) The pressure history of the Pendragon Chaco wells is summarized as follows:

Well No.	Pre-Treatment Wellhead Shut-in Pressure/Date	Treatment Date and Type	Post-Treatment Wellhead Shut-in Pressure/Date
Chaco No. 1	137 psi (7/83)	1/95 Frac'd	170 psi (2/95)
Chaco No. 2R	110 psi (7/83)	1/95 Frac'd	104 psi (3/95)
Chaco No. 4	97 psi (7/83)	5/95 Frac'd	153 psi (5/95)
Chaco No. 5	121 psi (6/80)	4/95 Frac'd	151 psi (5/95)
Chaco Ltd. 1J	87 psi (6/84)	1/95 Acidized	158 psi (1/95)
Chaco Ltd. 2J	157 psi (8/80)	1/95 Acidized	188 psi (3/95)

(23) The production history of the Pendragon Chaco wells is summarized as follows:

Well No.	Initial Production (Original Completion)	Pre-Acidization or Fracture Stimulation Production	Post-Acidization or Fracture Stimulation Production	Current Production
Chaco No. 1	80 MCF/D	0 MCF/D	250 MCF/D	165 MCF/D
Chaco No. 2R	70 MCF/D	0-15 MCF/D	90 MCF/D	120 MCF/D
Chaco No. 4	200 MCF/D	0 MCF/D	425 MCF/D	200 MCF/D
Chaco No. 5	190 MCF/D	0 MCF/D	370 MCF/D	210 MCF/D
Chaco Ltd. 1J	11 MCF/D	0-10 MCF/D	0-10 MCF/D	0-10 MCF/D
Chaco Ltd. 2J	30 MCF/D	0-10 MCF/D	0-10 MCF/D	0-10 MCF/D

(24) Cumulative gas production from the Pendragon Chaco wells is summarized as follows:

Well No.	Cumulative Production Drill Date-Pre-Acidization or Fracture Stimulation	Cumulative Production Drill Date-May 31, 1998	Difference (Post-Acidization or Fracture Stim.)
Chaco No. 1	102.8 MMCFG	377.8 MMCFG	275.0 MMCFG
Chaco No. 2R	49.3 MMCFG	99.2 MMCFG	50.0 MMCFG
Chaco No. 4	201.8 MMCFG	591.0 MMCFG	389.2 MMCFG
Chaco No. 5	144.8 MMCFG	507.8 MMCFG	363.0 MMCFG
Chaco Ltd. 1J	13.9 MMCFG	N/A	N/A
Chaco Ltd. 2J	37.8 MMCFG	N/A	N/A

(25) The production history of the Gallegos Federal wells is summarized as follows:

Well No.	Date of Initial Production	Initial Production Rate	Current Production Rate
26-12-6 No. 2	12/93	85 MCF/D	733 MCF/D
26-12-7 No. 1	12/93	124 MCF/D	700 MCF/D
26-13-1 No. 1	12/93	26 MCF/D	383 MCF/D
26-13-1 No. 2	7/93	51 MCF/D	150 MCF/D
26-13-12 No. 1	1/94	195 MCF/D	350 MCF/D

(26) With regards to pressure, production and gas reserve data, Pendragon presented the following engineering and geologic data:

a) in 1977, initial reservoir pressure in the Pictured Cliffs formation ranged between 230-250 psi in the subject area. As production continued into the 1980's, the rate of pressure decline in the Chaco wells, regardless of the volumes of gas produced, was generally the same indicating pressure communication over a large area. As the Chaco wells reached low rates of production during the early to mid 1980's the reservoir pressure was in the range of 90-130 psi. There is very little pressure data available from these wells during the period from 1983 to 1995;

b) in 1995, pressure readings taken from the Chaco Limited Wells No. 1J and 2J (which were not fracture stimulated) and from the Chaco Well No. 4 prior to fracture stimulation indicate that pressures had substantially increased since 1983-84 and ranged from 140 psi to 190 psi. This pressure data indicates that the reservoir pressure in the Pictured Cliffs formation was increasing in its Chaco wells prior to the conductance of fracture stimulations;

c) pressure data for the Chaco Wells No. 4 and 5 reflects that in 1995, these wells were producing at less than 1 percent of their producing rates in 1979 and pressures were equivalent to reservoir pressures in 1979. Such evidence indicates the existence of reservoir or skin damage;

d) there is a lower Pictured Cliffs sandstone interval (identified by the applicant as the "third bench") which is located approximately 14 feet below where the Chaco wells are currently perforated. Although the water saturation in this lower zone is relatively high (67%-78%), this lower zone may be in pressure and production communication and may be acting as a gas recharge source for the main body of the Pictured Cliffs sandstone interval. There is also evidence indicating that a well located in the SW/4 SW/4 of Section 11, Township 26 North, Range 13 West, produced exclusively from the "third bench" of the Pictured Cliffs with cumulative production of approximately 93 MMCF of gas;

e) volumetric reserve estimates of original gas-in-place (OGIP) for the main body and "third bench" of the Pictured Cliffs sandstone interval in the Chaco Wells No. 1, 4, and 5 (based on 160-acre drainage) are summarized as follows:

Well No.	OGIP (MMCF) Perforated Interval	OGIP (MMCF) "Third Bench"	Total (MMCF)
Chaco No. 1	442	236	678
Chaco No. 4	410	380	790
Chaco No. 5	395	228	623

f) remaining gas reserve calculations, based upon decline curve analysis of production subsequent to acizidation and/or fracture stimulation are summarized as follows:

Well No.	Remaining Reserves MMCF) (As of July 1, 1998)	Drainage Area (Perforated Interval)
Chaco No. 1	178.0	236-acres
Chaco No. 2R	94.0	N A
Chaco No. 4	219.0	384-acres
Chaco No. 5	219.0	351-acres
Chaco Ltd. 1J	0.0	N A
Chaco Ltd. 2J	0.0	N A

g [illegible] volumetric and decline curve analysis indicate that sufficient gas reserves exist in the Pictured Cliffs formation [illegible] economically from the Chaco wells.

h the production history of the Chaco wells compared to the pressure data accumulated prior to the acidization and or fracture stimulations on those wells indicate the reservoir in the immediate vicinity of the wellbores had experienced skin damage or other forms of reservoir damage. As a result, production from the Pictured Cliffs had significantly declined prior to the acidization and/or fracture stimulations;

i) a drop in production for the Pendragon and Whiting wells that occurred in August, 1995 corresponds to and was a result of frequent shut-ins of the El Paso Chaco Plant. This month was also preceded and followed by long periods of unusually high line pressure which may have also contributed to a drop in production in Whiting's wells: and

j) production plots for the Whiting wells shows gas and water production typical for a Fruitland Coal well. The gas and water decline curves for the Whiting wells show no inflections indicating any interference from the Pendragon Chaco wells.

(27) With regards to pressure, production and gas reserve data, Whiting presented the following geologic and engineering evidence and testimony:

a) The acidization and/or fracture stimulations performed by Pendragon on the Chaco wells resulted in significant pressure increases in these wells. The significant pressure increases achieved in these wells was markedly higher than the natural pressure increases experienced in the wells prior to the acidization and/or fracture treatments, and demonstrate that communication between the Pictured Cliffs and Fruitland Coal was established as a result of the treatments;

b) Pendragon introduced evidence at the hearing that pressures in the Chaco Well No. 5 had risen prior to any acidization or fracture stimulation on that well. Well file data indicates, however, that a casing leak occurred in that well prior to May, 1995. In February, 1995, black water was also noted flowing in the production. Given the evidence of the casing leak and water behind the pipe, it is clear that communication in the Chaco Well No. 5 had already been established between the Pictured Cliffs sandstone and the Fruitland Coal prior to January, 1995;

c) by the mid 1980's the Chaco wells exhibited signs consistent with production from a depleting Pictured Cliffs sandstone reservoir. Pressures were steadily declining and production had dropped to low levels (0-15 MCFGD/Well). The decline in both volume of gas and pressure is consistent with a depleted sandstone reservoir;

d) after completion, the Gallegos Federal wells exhibited performance typical of coal seam wells. They produced high volumes of water and virtually no (or little) gas in the initial months of production. Gas production inclined as the wells de-watered and by 1995, gas production was at economic levels except for the Gallegos Federal 26-13-1 Wells No. 1 & 2;

e) following acidization and/or fracture stimulation, the Chaco wells experienced large increases in gas production which is not characteristic of Pictured Cliffs re-stimulations. In each case, production levels exceeded production levels experienced when the wells were originally drilled under virgin reservoir conditions. The increases in production obtained are far greater than results that could be expected had Pendragon simply been overcoming skin damage in the wells;

f) Whiting has calculated original gas-in-place reserves for the Chaco wells utilizing a simulation program, "PROMAT." The results of the "PROMAT" Simulator analysis of the Chaco wells are summarized as follows:

Well No.	OGIP (MMCF) (Perforated Interval)	Drainage Area
Chaco No. 1	186.0	107-acres
Chaco No. 2R	84.0	130-acres
Chaco No. 4	268.0	147-acres
Chaco No. 5	[illegible]	[illegible]-acres
Chaco Ltd. 1J	N/A	N/A
Chaco Ltd. 2J	N/A	N/A

g) by the end of June, 1997, Pendragon had already produced, with the exception of the Chaco Well No. 2R, gas volumes far in excess of the calculated original gas-in-place for these wells. The Chaco wells have produced significantly more gas from 1995 to the present than they produced in the entire first 15-17 years of production;

h) the evidence of production volumes and pressure data on the Chaco wells since the acidization and/or fracture stimulation in 1995 is consistent with the conclusion that these wells have been producing significant volumes of coal seam gas;

i) typically, Pictured Cliffs producing wells do not exhibit significant water producing rates. The Chaco wells have produced significant volumes of water since the acidizations and/or fracture stimulations were conducted. Such high water producing rates are consistent with production originating from the Fruitland Coal;

j) Pendragon failed to report water production from the Chaco wells prior to February, 1998. Prior to that time, water production data from the Chaco wells is sparse. Pendragon disposed of produced water from its Chaco wells in unlined earthen pits in an area of sandy soils. The result of such disposal is that significant amounts of produced water were disposed of through evaporation and absorption into the soil, thus making it impossible to precisely quantify the volumes of water produced from the Chaco wells since the water production was not recorded by the pumpers or contract operator;

k) water/gas producing ratios for the Chaco wells are generally higher than those for the Whiting wells during the same periods; and

l) since the Chaco wells were shut-in by Order of the Santa Fe County District Court on June 30, 1998, pressure readings on the Chaco wells have confirmed communication with the Fruitland Coal. The shut-in pressure readings on the Chaco wells have fluctuated, such fluctuations coinciding with periods when the Whiting wells were shut-in due to pipeline and plant restrictions and when the Whiting wells went back on production. If there were no communication between the Pictured Cliffs and Fruitland Coal, the Chaco wells should exhibit a stable pressure once static pressure has been achieved.

(28) Upon consideration of the pressure data presented by both parties in this case the ***Division finds that***:

a) there is no pressure data available for the Chaco Well No. 4 and the Chaco Limited Wells No. 1J and 2J during the period from 1983-84 to January, 1995; consequently, it cannot be demonstrated that the pressure increases experienced in these wells occurred **prior** to their acid stimulations which were performed in January, 1995;

b) subsequent to acidization and/or fracture stimulation, the Chaco Wells No. 1, 4, 5, and the Chaco Limited Well No. 2J experienced increases in shut-in wellhead pressure. These pressure increases appear to have occurred as a **result** of the stimulation;

c) there is no pressure data available for any of the Chaco wells during the period from 1983-84 to 1995. The reservoir pressure in the Pictured Cliffs formation during the early to mid 1980's, at which time the Chaco wells were producing at low marginal rates, was approximately 90-130 psi;

d) there is not sufficient evidence to establish that the Chaco wells experienced "skin damage" resulting in premature production decline in the Pictured Cliffs formation;

e) given the state of depletion within the Pictured Cliffs producing interval (perforated interval), any pressure recharge that occurred within the Chaco wells during or subsequent to acidization and/or fracture stimulation originated from a source outside this interval;

f) during late 1994, the Fruitland Coal pressure within the Gallegos Federal wells ranged from approximately 175 to 225 psi. This data indicates that at the time the Chaco wells were acidized and/or fracture stimulated, there existed sufficient pressure within the Fruitland Coal formation to act as a recharge source for the Chaco wells;

g) Pendragon presented no data with regards to the pressure within the "third bench" of the Pictured Cliffs formation; and

h) on June 30, 1998, the Chaco wells were ordered shut-in by the Santa Fe District Court. Recorded wellhead pressures taken on the Chaco wells during the period from June 30-July 13, 1998 (13-day shut-in) showed the pressures to be stable within these wells. On July 14 for a 2-day period, and again on July 23 for a 2 1/2-day period, the Chaco Gas Plant was shut-in and, as a result, production from the Gallegos Federal wells was severely curtailed during these shut-in periods. The data indicates that each of the Chaco wells generally exhibited an increase in shut-in pressure at the times the Gallegos Federal wells' production was curtailed, and generally exhibited a decrease in shut-in pressure at the times normal production from the Gallegos Federal wells resumed.

(29) The pressure data generally indicate pressure communication between the Pictured Cliffs and Fruitland Coal formations within the Pendragon Chaco wells.

(30) Upon consideration of the production and gas reserve data presented by both parties in this case the ***Division finds that***:

a) Prior to the acidizations and/or fracture stimulations, the Chaco wells produced at rates ranging from 0-15 MCF gas per day. Post stimulation production from the Chaco Wells No. 1, 2R, 4 and 5 ranged from 90-425 MCF gas per day. Post stimulation production from the Chaco Wells No. 1, 4, and 5 significantly exceeded initial production from these wells at virgin reservoir conditions;

b) the Pictured Cliffs reservoir within the Chaco wells, which exhibited pressure and production decline typical of a sandstone reservoir, appears to have been depleted prior to the acidization and/or fracture stimulations which occurred in 1995;

c) stimulation efforts (acidization) performed on the Chaco Limited Wells No. 1J and 2J did not alter these wells' rates of production. These wells continue to produce at low marginal rates;

d) the significant post stimulation increases in producing rates obtained in the Chaco Wells No. 1, 2R, 4 and 5 cannot solely be attributable to overcoming "skin damage" in the wells. In addition, given the state of depletion within the Pictured Cliffs producing interval, the significant gas reserves being produced from the Chaco Wells No. 1, 2R, 4 and 5 do not likely originate from this interval;

e) Pendragon presented no evidence to demonstrate that there is pressure and/or production communication between the Pictured Cliffs producing interval and the "third bench" of the Pictured Cliffs formation;

f) typically, Pictured Cliffs completions produce very small amounts of water. Fruitland Coal completions are characterized by substantial water production until such time as the reservoir is de-watered;

g) although there is very limited water production data for the Chaco wells prior to February, 1998, testimony by Maralex indicates that as early as August, 1996, it witnessed substantial amounts of water contained within earthen pits at the Chaco well locations. There is further evidence indicating that the Chaco Well No. 1 continues to produce significant amounts of water (640 barrels in March, 1998, 640 barrels in April, 1998);

h) during 1998, water/gas ratios in the Chaco Wells No. 1, 2R and 4 were at least as high, and in some cases substantially higher, than those in the closest offsetting Gallegos Federal wells;

i) combined production data for the five Gallegos Federal wells shows that during 1994 the wells exhibited a fairly constant rate of production incline, which is characteristic of Fruitland Coal gas production. An effect on the Gallegos Federal well's production is evident commencing during the 2nd quarter of 1995, at which time the rate of production incline for the wells decreased;

j) cumulative gas production from the Chaco Wells No. 4 and 5 (591 MMCFG and 508 MMCFG, respectively) has exceeded Pendragon's original gas-in-place volumetric reserve estimates (based upon 160-acre drainage) for the Pictured Cliffs producing interval (410 MMCFG and 395 MMCFG, respectively);

k) there is no evidence to demonstrate pressure and production communication between the Pictured Cliffs producing interval and the "third bench" of the Pictured Cliffs formation within the Chaco wells; consequently, gas reserves contained within the "third bench" of the Pictured Cliffs formation should not be included in any production/gas reserve analysis;

l) Pendragon's decline curve and material balance gas reserve calculations are based upon post-stimulation production data from the Chaco wells. This data may not accurately reflect gas reserves in the Pictured Cliffs formation due to the possible establishment of communication with the Fruitland Coal formation during stimulation; and

m) Whiting's original gas-in-place reserve calculations for the Chaco wells were made utilizing "PROMAT," a reservoir simulation program which utilized historic production data from the Chaco wells prior to acidization and/or fracture stimulation.

(31) The producing characteristics of the Chaco wells (i.e. high initial producing rates subsequent to stimulation, water production, water/gas ratios, etc.) are indicative of gas production originating from the Fruitland Coal formation rather than the Pictured Cliffs formation.

(32) The Pictured Cliffs formation was depleted by the Chaco wells prior to the stimulations performed on these wells in 1995.

(33) There is no evidence to support Pendragon's contention that the "third bench" of the Pictured Cliffs formation is the source of production recharge within the Chaco wells.

(34) There is some evidence indicating that production from the Gallegos Federal wells has been affected by production from the Chaco wells.

(35) Whiting's method and resulting gas reserve calculations for the Chaco wells appears to more accurately depict the original gas-in-place reserves within the

Pictured Cliffs formation than those presented by Pendragon.

BTU/Gas Analysis Data

(36) It is Pendragon's position that even though there is a difference in BTU content between Pictured Cliffs and Fruitland Coal gas, BTU content cannot be used as an indicator of communication between the zones for the following reasons:

a) variations in BTU content could be attributable to a number of factors, including variations in reservoir pressure draw-down rates and production over time affecting the production of various gas liquids; and

b) phase change graphs demonstrate that phased transition from gas to liquids in a low permeability reservoir shows significant variations for methane, ethane, propane, butane and pentane. The production of these liquids and the resultant effect on gas BTU content was shown to be affected by a number of factors, including reservoir pressure and rates of production. As a result of these variable, dynamic forces, the various components move through the reservoir at different velocities, affecting the BTU content of the produced gas. As reservoir conditions are historically variable rather than static, the BTU content of the gas is continually affected.

(37) It is the position of Whiting that BTU content of gas can be utilized to demonstrate communication between the Pictured Cliffs and Fruitland Coal. Whiting presented the following engineering evidence and testimony:

a) a sample of 40 wells located within Township 26 North, Ranges 12 and 13 West indicates that the BTU content of Pictured Cliffs gas is generally in the range of 1,050 to 1,150, while the BTU content of Fruitland Coal gas is generally around 1,000;

b) historical data indicates that the BTU content of the Chaco wells prior to acidization and/or fracture stimulation was consistent with Pictured Cliffs produced gas in this area;

c) the gas analysis of the Gallegos Federal wells generally indicates a gas composed of 97-99% methane. The gas analysis of the Chaco wells prior to acidization and/or fracture stimulation generally indicates a gas composed of 90-93% methane; and

d) following the acidization and/or fracture stimulations, the Chaco wells began producing gas with a BTU content and gas analysis consistent with Fruitland Coal seam gas. The evidence presented to the Division demonstrates that the BTU readings on the gas produced in the Gallegos Federal wells and the BTU readings on the gas produced from the Chaco wells has become increasingly similar and consistent overtime, thus indicating that the Chaco wells are producing significant volumes of coal seam gas.

(38) Upon consideration of the BTU content and gas analysis (% methane) data presented by both parties in this case the ***Division finds that***:

a) there is no evidence to support Pendragon's contention that variations in BTU content in its Chaco wells are attributable to factors such as variations in reservoir pressure draw-down rates and production over time affecting the production of various gas liquids;

b) BTU content and gas analysis trends for the Chaco wells prior to acidization and/or fracture stimulation appear to be fairly consistent. In addition, BTU content and gas analysis trends for the Gallegos Federal wells prior to the acidization and/or fracture stimulation of the Chaco wells appears to be fairly consistent;

c) the BTU content decreased and the percentage of methane increased in the Chaco Wells No. 1, 4 and 5 subsequent to acidization and/or fracture stimulation; and

d) the current BTU content and gas analysis of the Chaco wells appears to be more characteristic of Fruitland Coal gas than Pictured Cliffs gas.

(39) BTU content and gas analysis trends can be utilized as an indicator of communication between the Fruitland Coal and Pictured Cliffs formations.

(40) The BTU content and gas analysis data presented generally indicates communication between the Pictured Cliffs and Fruitland Coal formations within the Chaco wells.

Fracture Stimulation Data

(41) The evidence presented by the parties indicates that the foam fracture stimulations performed on the Chaco wells consisted of fluid volumes averaging 31,248 gallons at proppant weights averaging 38,421 pounds injected at treating rates ranging from between 22 to 34 barrels per minute. The evidence further indicates that the foam fracture stimulations performed on the Gallegos Federal wells consisted of fluid volumes averaging 41,030 gallons at proppant weights averaging 72,656 pounds injected at treating rates between 45 to 60 barrels per minute.

(42) Pendragon presented the following engineering evidence and testimony in the area of fracture technology:

a) pressure and injection rate data derived from formation fracture treatments can be used to determine the vertical height growth and horizontal extension of fractures within the formation:

b) lithologic analysis from well logs may be used to design fracture stimulation treatments that remain contained within the target zone or formation. Moreover, changes in lithology and facies will predictably act as a barrier to fracture growth out of zone. Specifically, there is a distinct lithology change at the top of the Pictured Cliffs formation within the Chaco wells;

c) the fracture stimulations performed by Whiting were accomplished at significantly higher rates and higher volumes with fracture fluids of greater viscosity. By comparison, the fracture stimulations performed by Pendragon on its Chaco wells were accomplished at relatively low rates and low volumes;

d) Nolte Plots are an effective and reliable means of determining vertical height growth and extension of formation fractures;

e) the Nolte Plots for the Chaco wells show a slight incline in pressure over the time of the treatment, indicating restricted height growth and lateral extension of the fractures. In contrast, the Nolte Plots for the Gallegos Federal wells show negative slopes, indicating unrestricted, vertical growth and in one case, "run away" vertical fractures;

f) coal is an effective barrier to fracture growth because it is more elastic than the surrounding sandstones. The cleat systems within the coal body also allow for the pressure at the fracture tip to become diffuse, negating the ability of the tip and fluids to fracture into the coal itself;

g) the fracture treatments for the Chaco wells were designed specifically to utilize the thin coal and shale stringers as effective barriers to maintain containment of the fracture. Several examples of this type of fracture design and its effect were demonstrated for wells in the Raton Basin;

h) fracture simulators such as "FRACPRO," which was utilized by Whiting in this case, are generally recognized to exaggerate the height of actual fracture growth, thus making them a less reliable means for determining whether fractures remained confined within zone; and

i) the evidence and data presented are sufficient to support the conclusion that the fracture treatments on the Chaco wells did not escape out of zone and remained contained within the Pictured Cliffs formation. The evidence available is also insufficient to demonstrate that the fracture stimulations performed on the Whiting Gallegos Federal wells resulted in communication between the Pictured Cliffs and the Fruitland Coal.

(43) Whiting presented the following engineering evidence and testimony in the area of fracture technology:

a) the net pressures depicted on the Nolte Plots presented by the applicant in this case were incorrectly calculated and, as a result, applicant's conclusions as to the extent of fracture height growth within the Chaco and Whiting wells cannot be relied upon as accurate;

b) utilizing "FRACPRO," a fracture simulation program, Whiting has determined that the fracture stimulations performed on the Chaco Wells No. 1, 4 and 5 extended upward into the Fruitland Coal interval of the Basin-Fruitland Coal Gas Pool; and

c) as a result of Pendragon's fracture stimulations extending into the Fruitland Coal interval of the Basin-Fruitland Coal Gas Pool, coal gas is being produced from the Chaco wells in substantial quantities.

(44) Upon consideration of the fracture data presented by both parties in this case the ***Division finds that***:

a) the Nolte Plots presented by Pendragon do not appear to accurately reflect the net treating pressure and consequently these plots cannot be relied upon to ascertain whether the fracture stimulations performed on the Gallegos Federal wells resulted in fracturing of the Pictured Cliffs formation and whether the fracture stimulations performed on the Chaco wells resulted in fracturing of the Fruitland Coal formation;

b) the "FRACPRO" simulation data presented by Whiting indicates that the fracture stimulations performed on the Chaco Wells No. 1, 4, and 5 resulted in the fracturing of the Fruitland Coal formation;

c) no fracture simulation data was presented for the Chaco Well No. 2R;

d) no fracture simulation data was presented for the Gallegos Federal wells; and

e) neither Whiting nor Pendragon acted prudently to verify by means of additional testing whether its fracture stimulations extended out of their respective producing horizons;

(45) There is sufficient evidence to establish that the fracture stimulations performed on the Chaco Wells No. 1, 4 and 5 resulted in the fracturing of the Fruitland Coal formation within the Basin-Fruitland Coal Gas Pool.

(46) There is not sufficient evidence to establish that the fracture stimulation performed on the Chaco Well No. 2R resulted in the fracturing of the Fruitland Coal formation within the Basin-Fruitland Coal Gas Pool.

(47) There is not sufficient evidence to establish that the fracture stimulations performed on the Gallegos Federal wells resulted in the fracturing of the Pictured Cliffs formation within the WAW-Fruitland Sand Pictured Cliffs Gas Pool, although, given the close proximity of the Pictured Cliffs formation to the Fruitland Coal formation, and given the parameters utilized by Whiting in the fracture treatment of its wells, it is possible that the fracture stimulations performed on the Gallegos Federal wells did result in the fracturing of the Pictured Cliffs formation.

(48) The preponderance of evidence and testimony presented in this case demonstrates that the Pendragon Chaco Wells No. 1, 2R, 4 and 5 and the Chaco Limited Wells No. 1J and 2J have established communication with the Basin-Fruitland Coal Gas Pool by virtue of acidization and/or fracture stimulation performed on these wells.

(49) The communication established between the Basin-Fruitland Coal and WAW Fruitland Sand-Pictured Cliffs Gas Pools has resulted in significant volumes of coal gas being produced from Pendragon's Chaco Wells No. 1, 2R, 4 and 5. This communication appears not to have affected production from the Chaco Limited Wells No. 1J and 2J.

(50) The evidence and testimony presented in this case is not sufficient to demonstrate that the Whiting Gallegos Federal 26-12-6 No. 2. 26-12-7 No. 1. 26-13-1 No. 1, 26-13-1 No. 2 and 26-13-12 No. 17 have established communication with the WAW Fruitland Sand-Pictured Cliffs Gas Pool by virtue of fracture stimulations performed on these wells.

(51) The communication established between the Basin-Fruitland Coal and WAW Fruitland Sand-Pictured Cliffs Gas Pools within the Chaco wells has resulted in the violation of Whiting's correlative rights.

(52) As a solution to the pool communication within the Chaco wells, Whiting has proposed that the Division order Pendragon to plug and abandon the Chaco Wells No. 1, 2R, 4 and 5 and the Chaco Limited Wells No. 1J and 2J.

(53) Pendragon presented no proposed resolution in the event the Division determines that communication between the Basin-Fruitland Coal and WAW Fruitland Sand-Pictured Cliffs Gas Pools has been established within its Chaco wells.

(54) Pendragon should be given the opportunity to propose a method by which its Chaco wells may be produced exclusively from the WAW Fruitland Sand-Pictured Cliffs Gas Pool, or a method for producing its Chaco wells in their current state which is acceptable to the Division and to Whiting. These proposals should be evaluated at a forum which allows discussion and/or input from Whiting.

(55) Pending Division approval of a method by which Pendragon's Chaco wells may be produced exclusively from the WAW Fruitland Sand-Pictured Cliffs Gas Pool, or a method by which the wells may be produced in their current state which is acceptable to the Division and to Whiting, Pendragon should shut-in its Chaco Wells No. 1, 2R, 4 and 5 and Chaco Limited Wells No. 1J and 2J.

IT IS THEREFORE ORDERED THAT:

(1) Pursuant to the application of Pendragon Energy Partners, Inc., and J. K. Edwards Associates, Inc., it is determined that the following described wells are perforated within the Pictured Cliffs formation, WAW Fruitland Sand-Pictured Cliffs Gas Pool. It is further determined that the following described wells are producing from the WAW Fruitland Sand-Pictured Cliffs Gas Pool and the Basin-Fruitland Coal Gas Pool, San Juan County, New Mexico:

Operator	Well Name & API Number	Well Location
Pendragon Energy Partners, Inc.	Chaco No. 1 (API No. 30-045-22309)	1846' FNL & 1806' FWL, Unit F, Section 18, T-26N, R-12W
Pendragon Energy Partners, Inc.	Chaco No. 2R (API No. 30-045-23691)	1850' FSL & 1850' FWL, Unit K, Section 7, T-26N, R-12W
Pendragon Energy Partners, Inc. Unit D,	Chaco No. 4 (API No. 30-045-22410)	790' FNL & 790' FWL, Section 7, T-26N, R-12W
Pendragon Energy Partners, Inc. P,	Chaco No. 5 (API No. 30-045-22411)	790' FSL & 790' FEL, Unit Section 1, T-26N, R-13W
Pendragon Energy Partners, Inc.	Chaco Limited No. 1J (API No. 30-045-25134)	1850' FSL & 1750' FWL, Unit K, Section 1, T-26N, R-13W
Pendragon Energy Partners, Inc.	Chaco Limited No. 2J (API No. 30-045-23593)	790' FNL & 1850' FEL, Unit B, Section 1, T-26N, R-13W

(2) It is further determined that the following described wells are producing singly from the Basin-Fruitland Coal Gas Pool:

Operator	Well Name & API Number	Well Location
Whiting Petroleum Corp.	Gallegos Fed 26-12-6 No. 2 (API No. 30-045-28898)	886' FSL & 1457' FWL, Unit N, Section 6, T-26N, R-12W
Whiting Petroleum Corp.	Gallegos Fed. 26-12-7 No. 1 (API No. 30-045-28899)	2482' FSL & 1413' FWL, Unit K, Section 7, T-26N, R-12W
Whiting Petroleum Corp.	Gallegos Fed. 26-13-1 No. 1	828' FNL & 1674' FEL, Unit B,

(API No. 30-045-28881) Section 1, T-26N, R-13W

Whiting Petroleum Corp.	Gallegos Fed. 26-13-1 No. 2 (API No. 30-045-28882)	1275' FSL & 1823' FWL, Unit N, Section 1, T-26N, R-13W
Whiting Petroleum Corp.	Gallegos Fed. 26-13-12 No. 1 (API No. 30-045-28903)	1719' FNL & 1021' FEL, Unit H, Section 12, T-26N, R-13W

(3) Pendragon is hereby ordered to shut-in its Chaco Wells No. 1, 2R, 4 and 5 and its Chaco Limited Wells No. 1J and 2J until such time as the Division approves a method by which its Chaco wells may be produced exclusively from the WAW Fruitland Sand-Pictured Cliffs Gas Pool, or a method for producing its Chaco wells in their current state that is acceptable to Whiting.

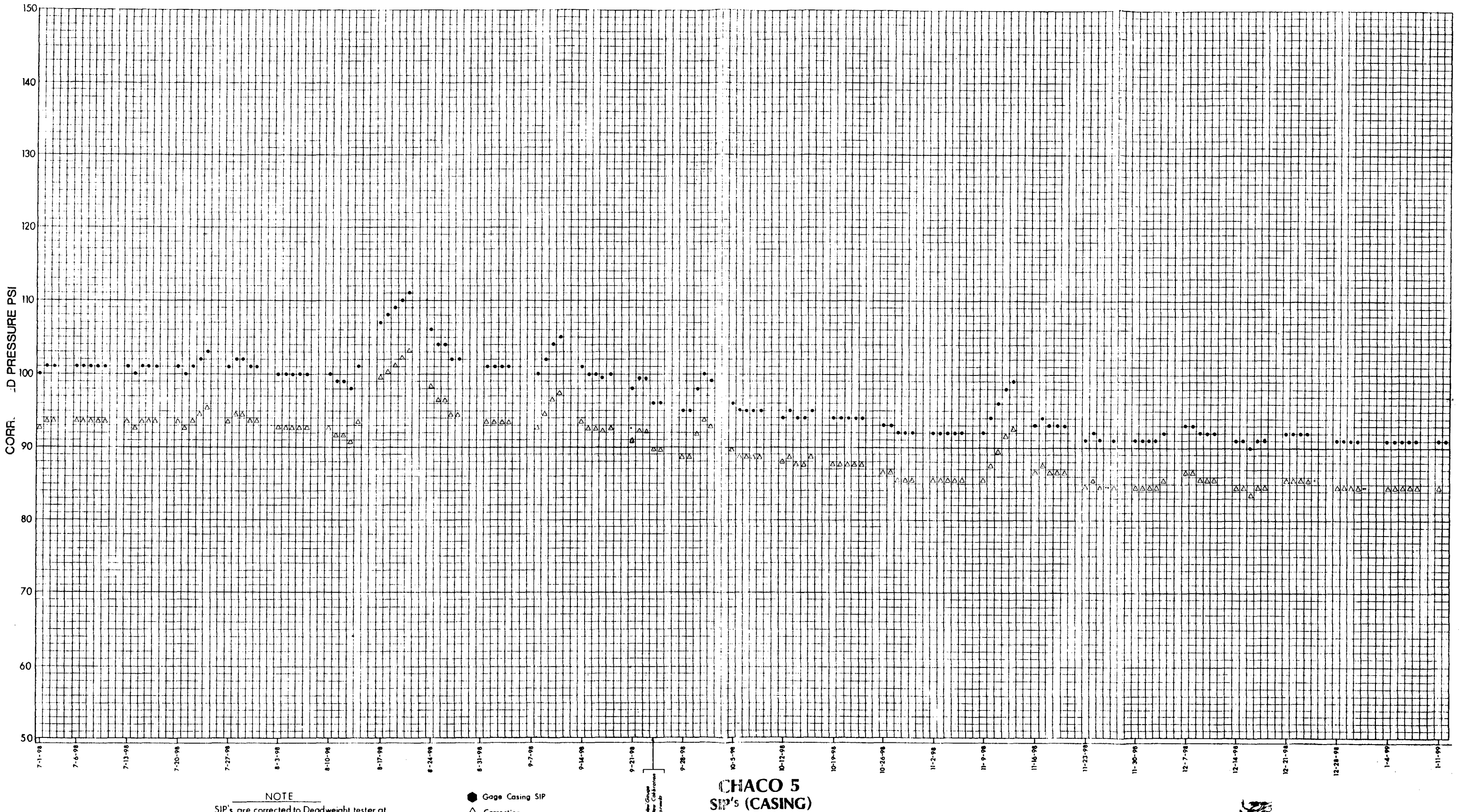
(4) Jurisdiction is hereby retained for the entry of such further orders as the Division may deem necessary.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

LORI WROTENBERY
Director

S E A L



NOTE

SIP's are corrected to Deadweight tester at

$Pc = \frac{Pg - 3.07}{1.047}$ Through 9/23/98 and $Pc = (Pg \times 1.025) - 8.9$ After 9/23/98

● Gage Casing SIP

△ Correction

CHACO 5

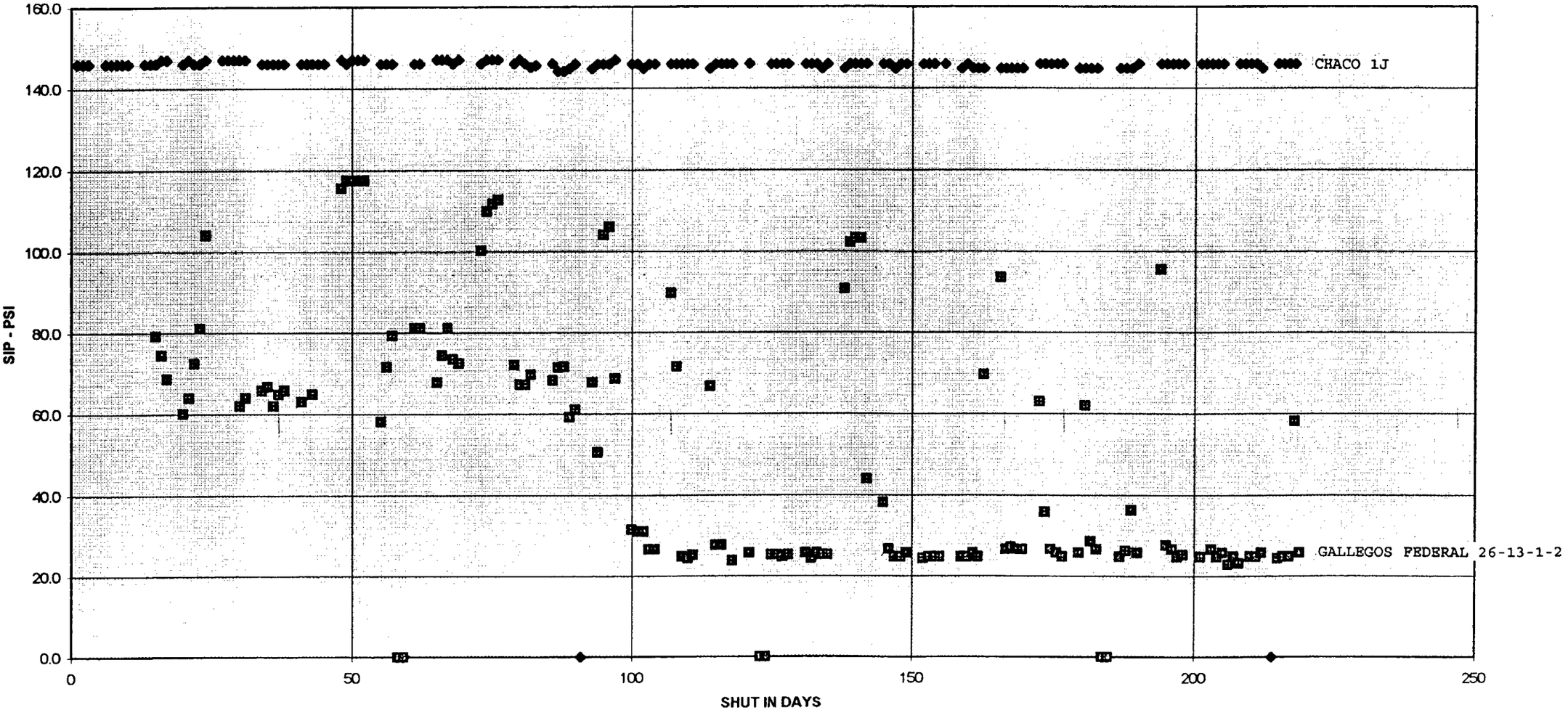
SIP'S (CASING)

From 7-1-98

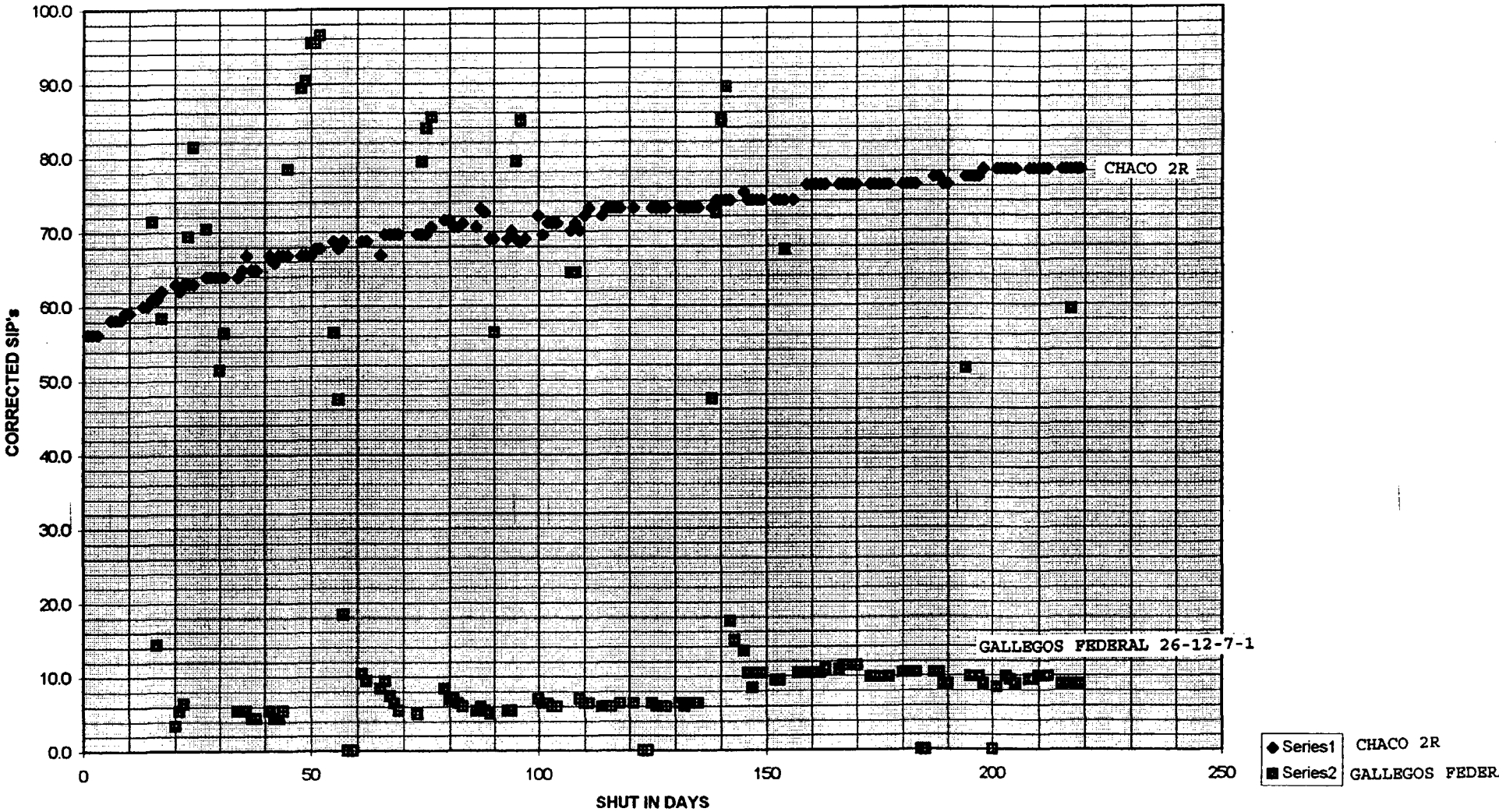
PENDRAGON ENERGY PARTNERS, INC.

chart - 9

CHACO 1J & GF 26-13-1-2 PLOTS



CHACO 2R & GALLEGOS FED. 26-12-7-1 PLOTS

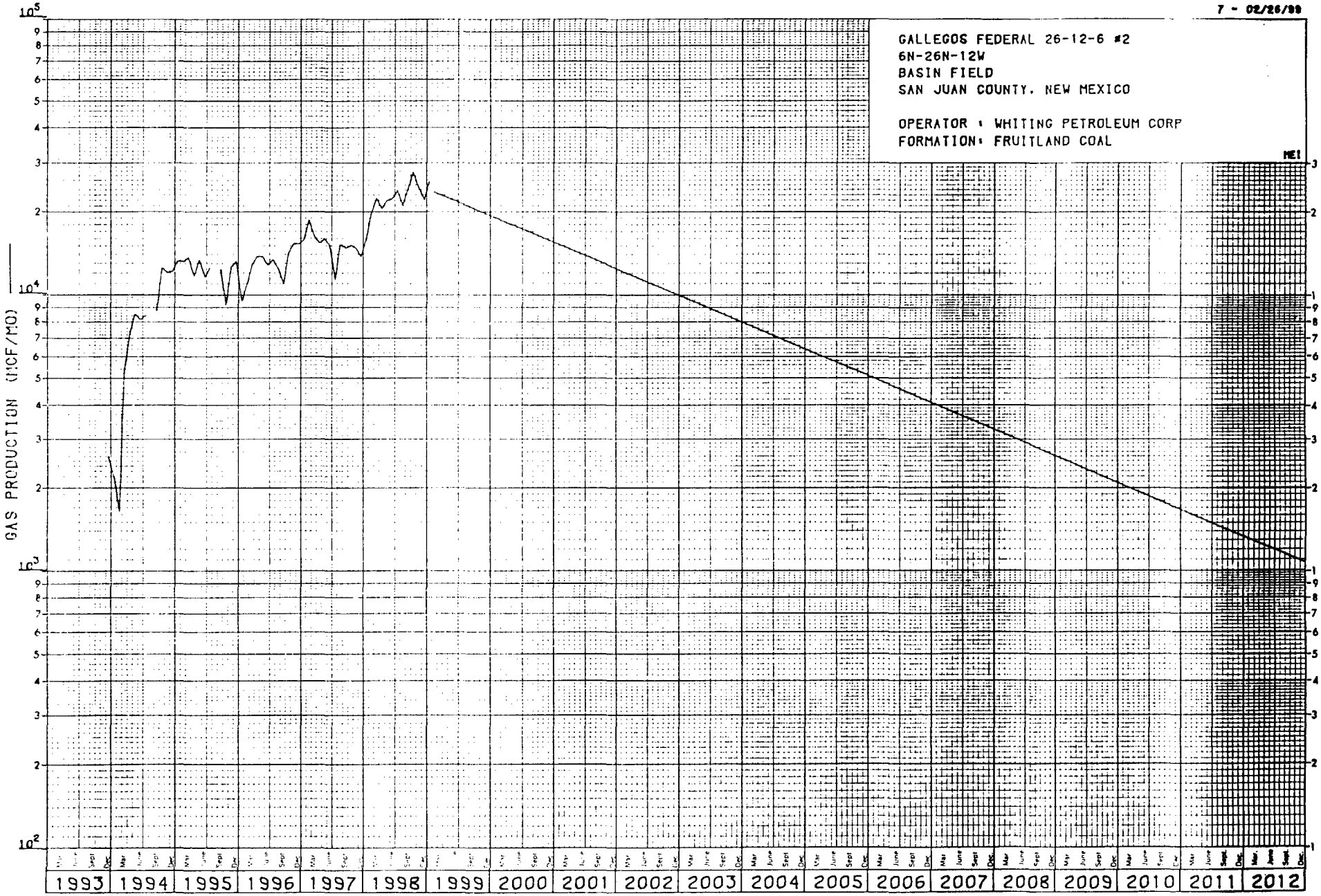


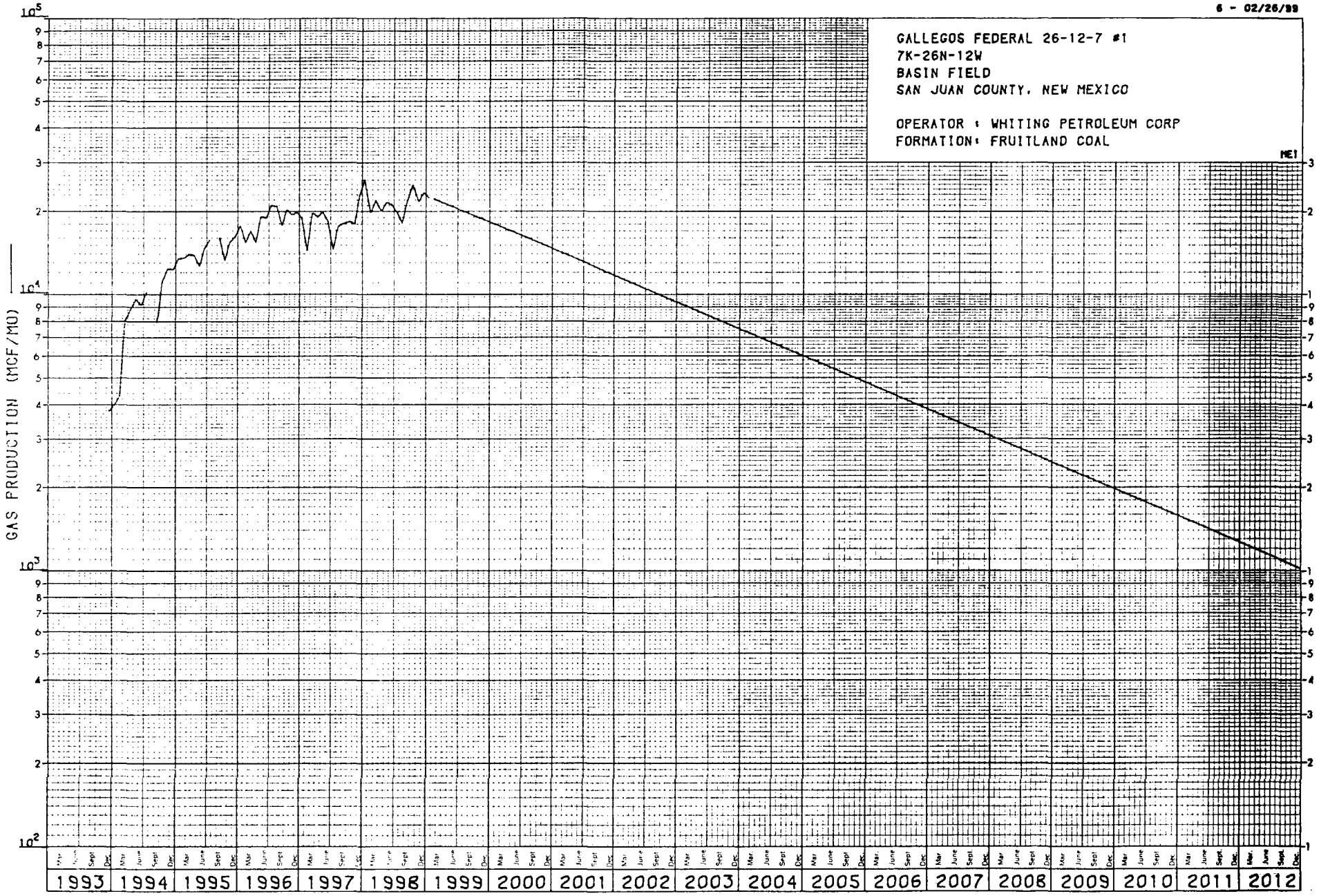
FRUITLAND COALBED METHANE WELL PERFORMANCE AND DECLINE CURVE ANALYSES
AS OF FEBRUARY 1, 1999

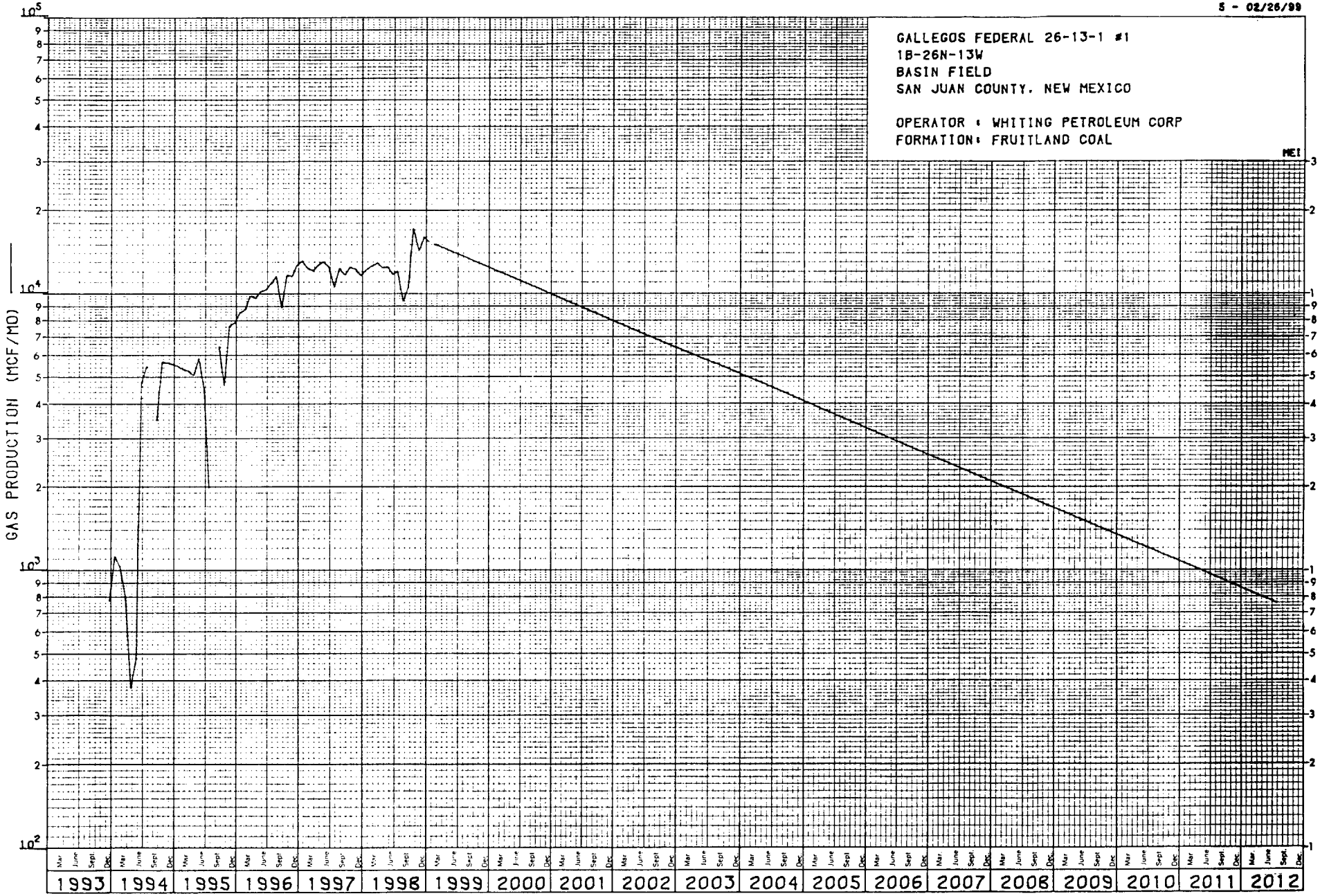
WELL NAME	LOCATION		CUMULATIVE GAS PROD. AT 2/1/99 (MCF)	REMAINING RESERVES (MCF)	ULTIMATE RECOVERY (MCF)	GAS-IN-PLACE PER 320 ACRES (MCF)	PCT. RECOVERY BASED ON CUM. PROD.	PCT. RECOVERY BASED ON ULT. RECOVERY
GALLEGOS FED 26-12-6 #2	SE SW	6-26N-12W	861,848	1,212,745	2,074,593	1,132,019	107.1%	183.3%
ALLEGOS FED 26-12-7 #1	NW SW	7-26N-12W	996,301	1,142,830	2,139,131	1,287,473	88.8%	166.1%
GALLEGOS FED 26-13-1 #1	NW NE	1-26N-13W	538,228	766,365	1,304,593	1,225,061	62.6%	106.5%
GALLEGOS FED 26-13-12 #1	SE NE	12-26N-13W	747,193	941,152	1,688,345	1,330,548	70.7%	126.9%
TOTALS /AVERAGES			3,143,570	4,063,092	7,206,662	4,975,101	81.7%	144.9%

COMMENTS:

PERFORMANCE ANALYSES INDICATE THAT THE FOUR WHITING FRUITLAND COALBED METHANE WELLS LISTED ABOVE HAVE, AS OF FEBRUARY 1, 1999, RECOVERED MORE GAS, ON AVERAGE, THAN WOULD BE ANTICIPATED FROM THE 320 ACRE SPACING PATTERN. THE ESTIMATED ULTIMATE RECOVERY REPRESENTS SIGNIFICANTLY MORE GAS THAN IS PRESENT ON THE RESPECTIVE 320 ACRE SPACING PATTERNS.

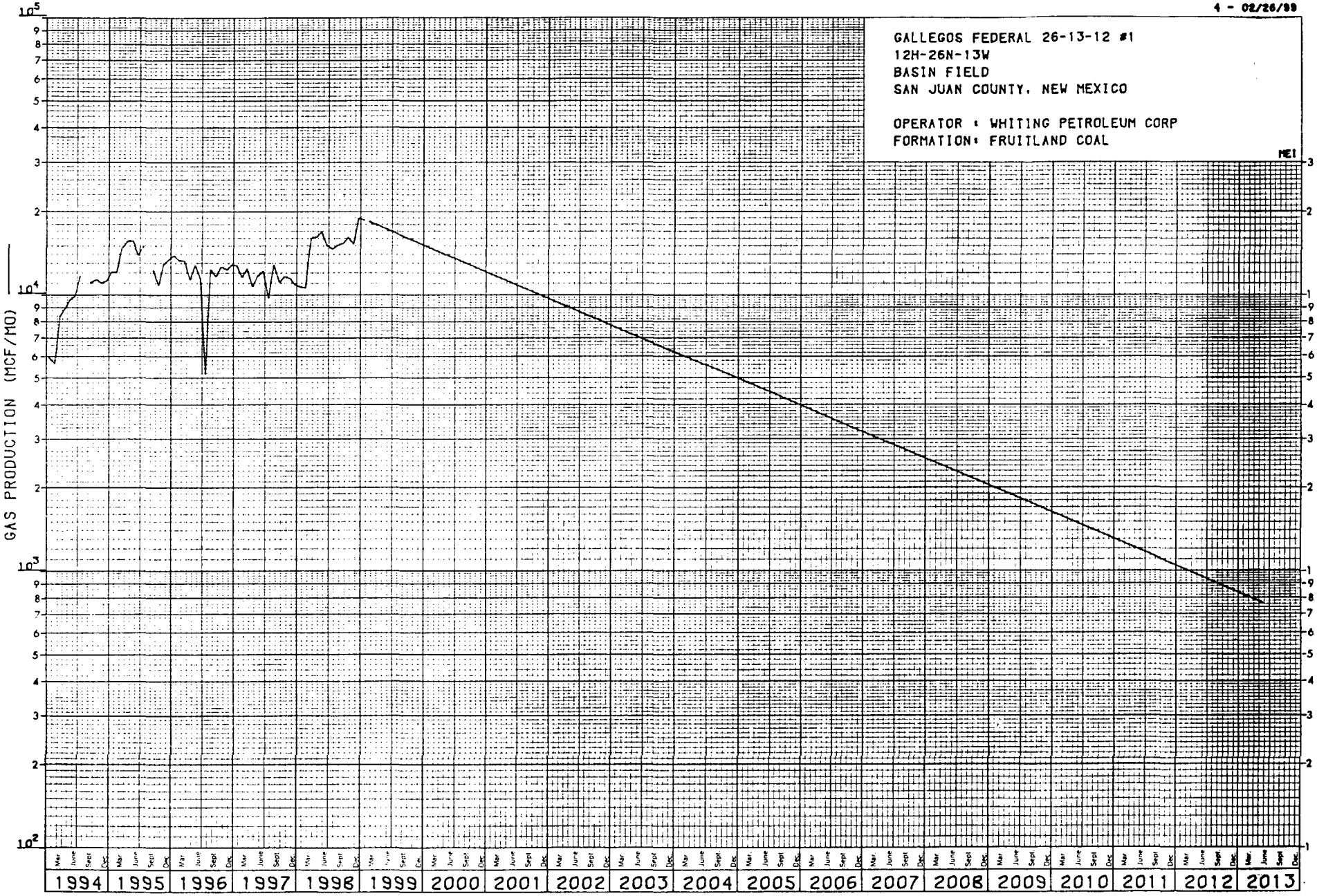

GALLEGOS FEDERAL 26-12-6 #2
6N-26N-12W
BASIN FIELD
SAN JUAN COUNTY, NEW MEXICO
OPERATOR : WHITING PETROLEUM CORP
FORMATION: FRUITLAND COAL
ME1
GAS PRODUCTION (MCF/MO)
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012


GALLEGOS FEDERAL 26-12-7 #1
7K-26N-12W
BASIN FIELD
SAN JUAN COUNTY, NEW MEXICO
OPERATOR : WHITING PETROLEUM CORP
FORMATION: FRUITLAND COAL
MCF
GAS PRODUCTION (MCF/MO)
1993
1994
1995
1996
1997
1998
1999
2000
2001
2002
2003
2004
2005
2006
2007
2008
2009
2010
2011
2012


GALLEGOS FEDERAL 26-13-1 #1
1B-26N-13W
BASIN FIELD
SAN JUAN COUNTY, NEW MEXICO
OPERATOR : WHITING PETROLEUM CORP
FORMATION: FRUITLAND COAL
MEI
GAS PRODUCTION (MCF/MO)
1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012

GALLEGOS FEDERAL 26-13-12 #1
12H-26N-13W
BASIN FIELD
SAN JUAN COUNTY, NEW MEXICO

OPERATOR : WHITING PETROLEUM CORP
FORMATION: FRUITLAND COAL



GALLEGOS FEDERAL 26-13-1 #2
1M-26N-13W
BASIN FIELD
SAN JUAN COUNTY, NEW MEXICO

OPERATOR : WHITING PETROLEUM CORP
FORMATION: FRUITLAND COAL

MCF

GAS PRODUCTION (MCF/MO)