CASE 5736: BCO INC. FOR DOWNHOLE COMMINGLING, RIO ARRIBA COUNTY, NEW MEXICO

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CASE NO.



APPlication, Transcripts, Small Exhibits,

ETC.



i. . •

Dunn #2 Federal Lease SF-078272 Undesignated Greenhorn-Dakota Rio Arriba County, New Mexico Ground Elevation 7265 2070' FNL 2260' FWL Sec. 10 T23N R7W NMPM

3-16-76 to 3-17-76

Drilled 12 1/4" Fole 142'. Ran 3 joints (142') of 24.70# 8 5/8" surface casing and cemented with 100 sacks Class B cement with 2% Ca Cl.

<u>4-7-76 to 4-20-76</u>

Drilled 7 7/8" hole to 6743 -- Drillers T.D. Deviation results are as follows:

1515	1/4	2490	3/4	3057	1/4
3568	1/2	4085	3/4	4712	3/4
5180	3/4	5480	A	5979	1
6439	A	6695	A		

A -- Test results misplaced. Driller did not mark results on daily report.

4-20-76

Ran the following Schlumberger logs:

Borehole compensated Sonic Log -- Gamma Ray -- Logger T.D. 6737 F-log Logger T.D. 6737 Dual Induction -- Laterolog with Linear Correlation Log. -- Logger T.D. 6738

4-20-76 to 4-21-76

Determined KB TD was 6733'. Ran 6730' 4 1/2" 11.60# K55 casing and cemented as follows: Stage 1 Cemented 6732 to 5007 with 355 sacks 50/50 Poz, (Class B and Pozmix), with 2% gel. Mixed 14.15 #'s per gallon. Stage 2 Baker DV Tool set at 5007'. Cemented 5007 to 2512 with 350 sacks 65/35 Halliburton light w/ 10#'s Gilsonite per sack. Mixed 12.1 #'s per gallon. Stage 3 Baker DV tool set at 2512'/ Cemented 2512 to surface with 350 sacks Halliburton light w/ 10#'s Gilsonite per sack. Mixed 12.1 #'s per gallon.

5-2-76

Drilled out DV tools at 2512' and 5007'. Drilled out float equipment, 3' of cement and 2' of formation. The results of this is 6730 of cased hole and 6730 to 6735 being open hole.

5-3-76

Ran the following Schlumberger logs: Cement bond log -- logger T.D. 6732' Dual Spacing Thermal Neutron Decay Time -- Logger T.D. 6734'. Perforated as follows: 6729-6724 w/4 SPF 6647-6642, 6588-6586, 6556-6551, 6499-6494 and 6487-6485 W/2 SPF Total shots -- 58

5-4-76

Ran RTTS packer and set at 6702.

<u>Pumped in</u> 6724-6735 (upper Dakota) with 500 gals 15% MCA acid. Tried to frac with 10/20 sand but couldn't. Fracked with 23,270 Gallons water; 15,000 #'s 40/60 sand; 30 gals scale protector LP55; 30 gals HYOflo; 450 #'s WG-6; 4 #'s G2W-3 and 67 sacks KcL. Average treating pressure 4200 #'s, ISIP 2075 #'s, 5 min SIP 1900 #'s.

5-4-76

Swab tested 6724-6735.

BEFORE EXAMINER NUTTER
OIL CONSERVATION COMMISSION
BCo he exhibit NO. 3
CASE NO. 5736

Dunn #2 Page 2 of

5-6-76

Retrieved Rtts. Set Baker retrievable bridge plug below 6647 and above 6724. Set Baker packer at 6606.

5-7-76

Broke down 6642-6647 (Lower Graneros) at 2600 # c. Ran 250 gals. 15% MCA acid. Fracked with 26,700 gals. water, 25,000 #'s 20/40 sand, 30 gals. Morflo, 100 #'s Agua, 450 #'s WG-6, 4 #'s GBW-3 and 30 gals. LP 55. Average treating pressure 4050 #'s ISIP 2250 #'s, 5 min SIP 1900 #'s, 15 min. SIP 1700 #'s.

<u>5-7-76</u>

Set Baker retrievable bridge plug below 6588 and above 6642. Set Backer packer at 6512.

Broke down 6551-6588 (Upper Graneros) at 3200 #'s. Ran 250 gais.

15% MCA acid. Fracked with 31,580 gals. water, 10,000 #'s 20/40 sand, 20,000 #'s 10/20 sand, 31 gals. Morflo, 100 #'s Agua, 400 #'s WG-6, and 31 gals. LP 55

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scale preventer. Average treating pressure 4150 #'s, ISIP 2150 #'s, 5 min. SIP 2000 #'s, 15 min. SIP 1850 #'s.

<u>5-7-76</u>

Set Baker retrievable bridge plug below 6499 and above 6551. Set Baker packer at 6449. Broke down 6485-6499, (Greenhorn), at 4500#'s. Ran 250 gals. 15% MCA and 299 gals. 28% HCL acid. Fracked with 16,360 gals. water, 15,000 #'s 20/40 sand, 5000 #'s 10/20 sand, 20 gals. Morflo, 100

#'s Agua, 350 #'s WG-6, 4 #'s GBW, 3, and 20 gals. LP55 scale preventer. Average treating pressure 4550 #'s, ISIP 2800 #'s.

5-8-76 to 5-11-76

Removed retrievable BP and packer. Swab tested well.

5-11-76

Landed 2 3/8 tubing open ended at 6704'.

5-12-76 to 5-24-76

Ran well several times to clean up.

5-25-76

Shut well in for 7 day AOF test.

6-2-76

Deadweight pressures approximately 2017 on casing and 1987 on tubing after 7-day shut in. Tried to run AOF test on 3/4" choke and well logged off in about two hours with 425 #'s on the casing. Shut well in.

6-3-76

22 hour shut in pressures -- casing 1475, tubing 1390.

6-7-76

5 day shut in pressures -- casing 1925, tubing 1860.

6-9-76

Intend to install seperator and try to clean well up so a test can be run to determine production capabilities as requested by potential gas purchasers.

9-17-76

Set E-Z drill cement retainer. Perforated Bottom Gallup: 5930-5931; 5913-1/2 - 5914-1/2; 5896-5897; 5873-5874; 5853-5854; 5836-5837; 5824-5825; 5802-5803; 5788-5789; 5778-5779; 5771-5772; 5759-5760 W/2 SPF Mayre: 5715-5725 (5715-5722 W/2 SPF, 5723-5725 W/4 SPF)

- Skelly: 5598-5612 W/2 SPF
- 9-20-76

Broke down bottom Gallup at 950# W/500 gals 15% MCA and 23 balls. ISIP 750; 5 min. SIP 200.

Broke down Mayre at 1000# W/500 gals 15% MCA and 25 balls. ISIP 700; 5 min. SIP 50.

Broke down Skelly at 1600# W/500 gals 15% MCA and 27 balls. ISIP 700#; 5 min. SIP 0.

Dunn #2 .Page+3 of

9-22-76

Fracked bottom Gallup W/22,000# 10-20 sand, 21,900 gals gel water, 24 gals Mor-flo, 100# adomite, 600# WG-6, 7# GBW-3, 24 gals LP55, and 68 KCL. Maximum treating pressure 4900, average 4150. ISIF 800#; 5 min. 750#; 15 min. 700#.

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Fracked Mayre W/21,000# 10-20 sand, 20,300 gals gel water, 22 gals Mor-flo, 100# adomite, 250# WG-6, 7# GBW-3, 22 gals LP55, and 40 KCL. Maximum treating pressure 5000, average 4450#. ISIP 1000#; 5 min. 800#, 15 min. 775#.

Fracked Skelly W/21,000# 10-20 sand, 21,700 gals 15# gel water, 24 gals Mor-flo, 350# WG-6, 7# GBW-3, 24 gals LP55 and 25 KCL. Maximum treating pressure 5000#; average 3900#. Sanded off.

<u>9-23-76</u>

to Swabbed well and placed in production. 9-28-76



DIRECTOR JOE D. RAMEY

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO 1000 RIO BRAZOS RD. • AZTEC 87410 LAND COMMISSIONER

PHIL R. LUCERO



STATE GEOLOGIST EMERY C. ARNOLD

791

November 23, 1976

Nr. Bob Bigbee 2co, Inc. P. O. Box 669 Santa Fe, New Mexico 87501

Re: Order R-5310 C-se 5736 Bco, Inc. Dunn #2 F-10-23N-7W

Dear Mr. Bigbee,

I agree that the allocation of the production for the subject should be as follows:

Lybrook Gallup - 15 80PD at a GOR of 6000 feet per barrel Basin Dakota - zero oil and all remaining gas

The Mancos production shall be considered to all come from the Lybrook Gallup and any Greenhorn production shall be considered as Basin Dakota production.

The allocation shall be adjusted semi-annually following GOR tests to be conducted during the months of May and November. The results of such tests shall be filed by the tenth day of the next succeeding month.

Gas-oil ratio tests may be taken at shorter intervals if significant change is noted in the production.

If there are further questions, please contact us.

Yours very truly,

A. R. Kendrick Supervisor, District #3

xc: U.S.G.S., Durango OCC, Santa Fe

ARK:no

1 BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION 2 Santa Fe, New Mexico September 1, 1976 3 4 EXAMINER HEARING 5 IN THE MATTER OF: 6 ٦. Application or BCO, Inc. for downhole CASE 7) 5736 commingling, Rio Arriba County,) New Mexico. 8)) 9 General Court Reporting Service 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501 Phone (505) 982-9212 morrish reporting service 10 BEFORE: Daniel S. Nutter, Examiner 11 12 TRANSCRIPT OF HEARING 13 APPEARANCES 14 For the New Mexico Oil William F. Carr, Esq. Conservation Commission: Legal Counsel for the Commission sid 15 State Land Office Building Santa Fe, New Mexico 16 For the Applicant: Jason W. Kellahin, Esq. 17 KELLAHIN & FOX Attorneys at Law 18 500 Don Gaspar Santa Fe, New Mexico 19 20 21 22 23 24 25

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MR. NUTTER: We will call Case Number 5736. MR. CARR: Case 5736, application of BCO, Inc. for 3 downhole commingling, Rio Arriba County, New Mexico.

MR. KEULAHIN: If the Examiner please, Jason Kellahin 4 appearing for the applicant. Mr. Harry Bigbee who was going 5 to be a witness in this case burned both of his feet rather 6 badly in a fire over on the lease last week and he asks that 7 we try to continue this for thirty days. 8

MR. NUTTER: Mr. Kellahin, we have a hearing 9 scheduled for September 29th which is approximately thirty 10 11 days, is that satisfactory?

MR. KELLAHIN: That would be satisfactory, yes, sir. MR. NUTTER: Case Number 5736 will be continued to the examiner hearing scheduled to be held at this same place at nine o'clock A.M., September 29th, 1976.

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REPORTER'S CERTIFICATE

2 I, SIDNEY F. MORRISH, a Certified Shorthand Reporter, do hereby certify that the foregoing and attached Transcript 3 of Hearing before the New Mexico Oil Conservation Commission 4 was reported by me, and the same is a true and correct record 5 of the said proceedings to the best of my knowledge, skill and 6 ability. 7

Sidney C.S.R. É. Morrish,

I do hereby certify that the foregoing is a complete reserve of the proceedings in beard by ale

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sid morrish reporting service Central Court Reporting Service 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501 Phone (5(15) 982-9212

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		NEW MEXICO OIL CO	NSERVATION COMMISSION
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	4	EXAMIN	ER HEARING
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	6	IN THE MATTER OF:	
	7	Application of BCO, Inc	
	8	commingling, Rio Arriba New Mexico.	County,) 5736
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sid morrish reporting service <i>General Court Reporting Service</i> Calle Mejia, No. 122, Santa Fe, New Mexico 87501 Phone (505) 982-9212	9		n mar Bhi du a shi ang dan Gan nan ajar Bhi Ann Ann Ann Ann Ann Ann Ann Ann
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	11	BEFORE: Daniel S. Nutter, Ex	awiner
	12	TRANSCRI	PT OF HEARING
	13		
	14	APPE	ARANCES
	15		William F. Carr, Esq. Legal Counsel for the Commission
U			State Land Office Building
825	16		Santa Fe, New Mexico
	17	For the Applicant:	Jason W. Kellahin, Esq.
	18		KELLAHIN & FOX Attorneys at Law
			500 Don Gaspar
	19		Santa Fe, New Mexico
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General Court Reporting Service 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501 Phone (505) 982-9212 morrish reporting service sid

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do hereby certify that the foregoing and attached Transcript
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of the said proceedings to the best of my knowledge, skill and
ability.

Sidney F Morrish, C.S.R.

1 we have by certify that that the standarding is a capieve record of the the E. Minor hearing of C. Now Marico Cil Conservation duamission aniner

sid morrish reporting service *General Court Reporting Service* 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501 Phone (505) 982-9212



DIRECTOR

JOE D. RAMEY

OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO P. O. BOX 2088 · SANTA FE 87501 LAND COMMISSIONER FHIL R. LUCERO CCODER 28, 1976



Mr. Jason Kellahin Kellahin & Fox Attorneys at Law Post Office Box 1769 Santa Fe, New Mexico Re: CASE NC. 5736 ORDER NO. R-5310

Applicant:

BCO Inc.

Dear Sir:

Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case.

Yours very truly, JOE D. RAMEY Director

JDR/fd

Copy of order also sent to:

Hobbs OCC	X
Artesia OCC	X
Aztec OCC	X

Other

BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR THE PURPOSE OF CONSIDERING:

> CASE NO. 5736 Order No. R-5310

APPLICATION OF BCO INC. FOR DOWNHOLE COMMINGLING, RIO ARRIBA COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on September 29, 1976, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this <u>27th</u> day of <u>October</u>, 1976, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

FINDS:

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

(2) That the applicant, BCO Inc., is the owner and operator of the Dunn Well No. 2, located in Unit F of Section 10, Township 23 North, Range 7 West, NMPM, Rio Arriba County, New Mexico.

(3) That the applicant seeks authority to commingle Lybrook-Gallup, Basin-Dakota, undesignated Greenhorn, and Mancos stringer production within the wellbore of the above-described well.

(4) That from each of the aforesaid pools and zones, the subject well is capable of low marginal production only.

(5) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools and zones, thereby preventing waste, and will not violate correlative rights.

(6) That the reservoir characteristics of each of the subject pools and zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(7) That to afford the Commission the opportunity to assess the potential for waste and to expeditiously order appropriate -2-Case No. 5736 Order No. R-5310

remedial action, the operator should notify the Aztec district office of the Commission any time the subject well is shut-in for 7 consecutive days.

(8) That in order to allocate the commingled production to each of the commingled zones in the subject well, applicant should consult with the supervisor of the Aztec district office of the Commission after completion of the well to determine an allocation formula for the Mancos-Gallup production and the Greenhorn-Dakota production.

IT IS THEREFORE ORDERED:

(1) That the applicant, BCO Inc., is hereby authorized to commingle Lybrook-Gallup, Basin-Dakota, undesignated Greenhorn and Mancos stringer production within the wellbore of the Dunn Well No. 2, located in Unit F of Section 10, Township 23 North, Range 7 West, NMPM, Rio Arriba County, New Mexico.

(2) That upon completion of the well, applicant shall consult with the supervisor of the Aztec district office of the Commission and determine an allocation formula for the Mancos-Gallup production and the Greenhorn-Dakota production.

(3) That the operator of the subject well shall immediately notify the Commission's Aztec district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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



STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

PHILAR. LUCERO, Chairman und Can ARNOLD EMERY CA Member JOE D. RAMEY, Member & Secretary

SEAL jr/

Examiner Hearing - Wednesday - August 18, 1976

CASE 5735:	Application of Continental Oil Company to amend Order No. R-1234, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Rule 19 of the Special Rules for the Warren Tubb Gas Pool promulgated by Order No. R-1234, to provide for an increase in the gas-oil ratio limitation for oil wells in said pool to some figure not to exceed 10,000 to one.
CASE 5736:	Application of BCO Inc. for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Basin Dakota Gas Pool and Lybrook-Gallup Oil Pool and undesignated Greenhorn and Mancos production in the wellbore of its Dunn Well No. 2, located in Unit F of Section 10, Township 23 North, Range 7 West, Rio Arriba County, New Mexico.
<u>CASE 5737</u> :	Application of Howard Boatright Company for amendment of Order No. R-5208, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-5208 which authorized salt water disposal into the Delaware formation through applicant's State CS Well No. 1 located in Unit L of Section 17, Township 21 South, Range 27 East, Eddy County, New Mexico. Applicant seeks to increase the maximum wellhead injection pressure for said well from 400 psi to 800 psi.
CASE 5709:	Application of Tahoe Oil and Cattle Company for an exception to the provisions of Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to construct and operate an earthen salt water disposal pit in the NE/4 SW/4 of Section 2, Township 20 South, Range 30 East, Eddy County, New Mexico.
<u>CASE 5738</u> :	Application of Hayes Oil Company for a non-standard proration unit and an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 240-acre non-standard gas proration unit comprising the NE/4 and N/2 SE/4 of Section 18, Township 20 South, Range 26 East, Eddy County, New Mexico, to be dedicated to a Morrow test well proposed to be drilled at an unorthodox location for said unit at a point 1980 feet from the South line and 660 feet from the East line of said Section 18.

<u>CASE 5739</u>: Application of William G. McCoy for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location of its McCord Well No. 1 to be drilled at a point 660 feet from the North and East lines of Section 22, Township 23 South, Range 26 East, South Carlsbad-Morrow Gas Pool, Eddy County, New Mexico.

CASE 5740: Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying Section 26, Township 24 South, Range 26 East, Eddy County, New Mexico, to be dedicated to applicant's White City Penn Gas Com. Unit No. 3 Well No. 1, to be drilled at a point 2310 feet from the North and West lines of said Section 28. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.

CASE 5741: Application of Gulf Oil Corporation for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority for the directional drilling of three wells on its Central Drinkard Unit, Drinkard Pool, Lea County, New Mexico, all in Section 33, Township 21 South, Range 37 East, as follows: Well No. 406, surface location 2200 feet from the South line and 1470 feet from the East line, bottom-hole location 2390 feet from the South line and 870 feet from the East line; Well No. 407, surface location 1475 feet from the South line and 1440 feet from the East line, bottom-hole location 1110 feet from the South line and 1620 feet from the East line; Well No. 420, surface location 2300 feet from the South line and 1520 feet from the East line, bottom-hole location 1790 feet from the North line and 1030 feet from the East line, All of the above wells would be bottomed within 100 feet of the above-described bottom-hole locations.

<u>CASE 5742</u>: Application of Gulf Oil Corporation for a non-standard gas provation unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre nonstandard Blinebry gas provation unit comprising the S/2 NW/4 and W/2 NE/4 of Section 28, Township 21 South, Range 37 East, Lea County, New Mexico, to be simultaneously dedicated to applicant's Eunice King Wells Nos. 5 and 24, located, respectively, 1874 feet from the North and West lines, and 2086 feet from the North line and 760 feet from the West line of said Section 28. Applicant further seeks authority to later substitute its Eunice King Well No. 15, located 2086 feet from the North and West lines of said Section 28 for the aforesaid Well No. 5 in the above-described simultaneous dedication.

CASE 5743: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit John W. Adams, Executor of Estates of R. W. and June Adams; and Ruth McGahey, Fred McGahey and David McGahey dba Adams & McGahey, American Employers' Insurance Company, and all other interested parties to appear and show cause why the following wells located in Township 21 North, Range 30 East, Harding County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program;

Conzales Well No. 2, located in Unit P of Section 9; Adams & McGahey Well No. 1, located in Unit B of Section 16; and Gonzales "A" Well No. 1, located in Unit H of Section 32.

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	1 2 3	BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico September 29, 1976				
825 Calle Meja, No. 122, Santa Fe, New MEXICO 87301 Phone (505) 982-9212	4	EXAMINER HEARING				
	5 6	IN THE MATTER OF:				
	7	Application of BCO, Inc. for downhole) CASE commingling, Rio Arriba County,) 5736				
	8 9	New Mexico.) (Cont'd.))				
	10	BEFORE: Daniel S. Nutter, Examiner				
	11 12	TRANSCRIPT OF HEARING				
ne (505)	13	APPEARANCES				
Phone Phone	14 15	For the New Mexico Oil William F. Carr, Esq. Conservation Commission: Legal Counsel for the Commission State Land Office Building Santa Fe, New Mexico				
	16 17	For the Applicant: Jason W. Kellahin, Esq. KELLAHIN & FOX				
	18	Attorneys at Law 500 Don Gaspar Santa Fe, New Mexico				
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sid morrish reporting service General Court Reporting Service 5 Calle Mejia, No. 122, Santa Fe, New Mexico 87501 Phone (505) 982-9212

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ng se service New M	11	BCO Exhibit One, Map	7	13
reporting rt Reporting Sei 5 Santa Fe, Nev 505) 982-9212	12	BCO Exhibit Two, Log	8	13
sh ref Court Re 122, Sau ne (505)	13	BCO Exhibit Three, Well Record	15	15
sid morrish <i>General Cour</i> 825 Calle Mejia, No. 122, Phone (14			
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	1	MR. NUTTER: We will call Case Number 5736.
	2	MR. CARR: Case 5736, application of BCO, Inc. for
	3	downhole commingling, Rio Arriba County, New Mexico.
	4	MR. KELLAHIN: If the Examiner please, Jason Kellahi
	5	Kellahin and Fox, Santa Fe, appearing for the applicant and I
	6	have one witness to be sworn.
	7	(THEREUPON, the witness was duly sworn.)
	8	
7501	9	HARRY L. BIGBEE
vice v Mexico 87501	10	called as a witness, having been first duly sworn, was
53	11	examined and testified as follows:
eporting Inta Fe,) 982-9	12	
Court Reporting S 122, Santa Fe, Ne ne (505) 982-9213	13	DIRECT EXAMINATION
ieneral (jia, No. Pho	14	BY MR. KELLAHIN:
Ceneral Co 825 Calle Mejia, No. 13 Phone	15	Q. Would you state your name, please?
825 C	16	A. Harry L. Bigbee.
	17	Q. What is your connection with BCO, Inc.?
	18	A. I'm the chairman of the board and own all of t
	19	stock?
	20	Q. Mr. Bigbee, in connection with the operations
	21	BCO, Inc. do you take an active part in the supervision
	22	the drilling, completion and production of the wells owned by
	23	this company?
	24	A. Yes.
	25	Q. Dc you spend time in the field in connection wit?

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1	this oper-	ation?
2	λ.	Yes, I do.
3	0	Have you been over there recently?
4	λ.	Yes, I have. I came back Sunday, 1 think.
5	Q.	Now, are you familiar with the Dunn No. 2 Well?
6	А.	Yes, I am.
7	<u>0</u> .	Which is the subject of this hearing?
8	A.	Right.
9	Q.	Have you ever testified before this Commission?
10	A.	It seems like I have.
11	Ŭ.	And you qualified as a witness at that time based on
12	experienc	e, is this correct?
13	А.	I would say I qualified as a layman's expert.
14		MR. KELLAHIN: Does the Examiner accept Mr. Bigbee's
15	qualifica	tions as a layman's expert?
16		MR. NUTTER: Yes, sir, I want to know if he has any
17	trouble w	ith his board meetings.
18		THE WITNESS: I don't recall any.
19	Q.	(Mr. Kellahin continuing.) Now, are you familiar
20	with the	application of BCO, Inc. in Case 5736?
21	Α.	Yes, sir.
22	Q.	What is proposed by the applicant in this case?
23	А.	We have previously opened what I call the Upper
24	Granerous	which I think is now called Dakota A and the Lower
25	Granerous	which I believe is called Dakota B and what we

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1 used to call the Upper Dakota which is next to lowest member 2 of the Dakota and we have perforated and sand-water fraced those 3 zones and the Greenhorn. We have recently, and I would say 4 last week, I set a bridge plug at sixty-two hundred feet, had 5 Schlumberger set a bridge plug and we went ahead and perforated 6 and fraced the Gallup and it is in that condition now. 7 <u>Q</u>. What have you isolated with that bridge plug? 8 Δ. The Dakota-Greenhorn zone, sir, no longer open, sixty two hundred feet there below that substantially. 9 Now, in connection with this application, do you 10 Q. propose to open those zones to the wellbore? 11 12 Yes, that is correct. A. And how will your well be completed? 13 0. The well will operate on a piston-drive we 14 A. anticipate. We roughly brought in the Gallup but it still 15 hasn't cleaned up. We moved the pulling unit off I believe 16 yesterday morning, maybe the morning before and all indications 17 are that the Gallup will be a high ratio gas zone with some 18 fluid and it will operate with a piston-lift drive and that's 19 the way we brought in the Dakota-Greenhorn, so that would be 20 anticipated to drill out that bridge plug, clean up the hole, 21 swab it out and put it on production. 22 Now, Mr. Bigbee, in connection with this application, Q. 23 you are going to commingle the Basin-Dakota Gas Pool with other 24

horizons, do you have any information on the pressures in the

rporting Service nta Fe, New Mexico 87501 982-9212 morrish reporting service

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Basin-Dakota?

Q.

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Α. If this is still part of the Basin Dakota, I wasn't sure about that, there is no close Dakota production.

I think it's all Basin-Dakota, isn't that right? 0. I think somebody told me my two wells where I've ħ. got commingled the Dakota Greenhorn Gallup in Section 12, 24, 6 7 are not considered that, I'm not sure about that but 7 regardless of what it is, we did pressure up the shut in for 8 a week and had Teff Keller come out to run a test. We have 9 had about twenty-one hundred pounds of pressure. At that 10 time he didn't get me a bottom-hole test because the piston 11 was stuck in the tubing. 12

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That's right, that was a surface pressure. A. indications when we ran it was there was very little fluid. would assume if you would take your twenty-one hundred pounds

That was a surface pressure then?

and add ten pounds a thousand for gas it is some sixty-seven hundred feet and add a hundred pounds, you have twenty-three, twenty-four hundred pounds bottom-hole pressure is what it looks like. I know it's the twenty-one hundred.

The

Q. Now, how about the Gallup?

Our previous indications in the Gallup have been A. 22 that you have an initial pressure that will vary between 23 seventeen hundred and nineteen hundred pounds. 24

Q. You don't have a test on that, though? 1 A. No. I just completed it and it has not cleaned up
2 but I have completed quite a number of wells in the area and
3 they are reasonably uniform. I think generally, I was under the
4 impression and it was accepted that that was your initial
5 pressures.

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6 Now, is the Mancos and the Gallup close associated? Q. 7 λ. Yes, in fact, there are many people that think that most of the Gallup is just stringers in the Mancos, like the 8 Skelly zone which is the Upper Gallup in this particular 9 area. I think quite a few people think of it as Mancos stringer. 10 Mary zone is a true Gallup and what I call the Bottom Gallup 11 12 is also in the nature of Mancos stringers.

13 Q. In your opinion, would the pressures then be14 approximately the same as your Gallup formation?

15 A. Yes, experience is that they are and they will frac
16 together in most places.

17 Q. Well, would the situation be the same as to the18 Greenhorn and Dakota?

19 A. Yes, the Greenhorn is actually connected with the
20 Dakota and the experience in the area has indicated that when
21 they didn't open the Greenhorn but completed in the Dakota
22 and later came in and opened it they found they had depleted
23 it too.

24 Q. Now referring to what has been marked as Exhibit
25 Numb... One, would you state what is shown on that exhibit?

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1 Yes, I have marked in red in Section 10 the Dann No. 2. Α. 2 I have marked, at your request, the adjacent wells. As shown, 3 the hatch marked areas is where the operator owns the lease, it shows the adjacent wells. All of the adjacent wells are 4 5 completed in the Gallup. This is the only Dakota in the area 6 shown. It is, in fact, what might be a Dakota discovery well, 7 I know the closest attempts was the 329 Connie in 24, 7 and 8 they weren't able to complete it. I didn't drill through or 9 into the Bottom Dakota may be the difference. They had a 10 test that indicated, a core that indicated gas. There has 11 also been some Dakota drilled in Section 25 of that Township. 12 I think those are Mesa wells and Section 30, I think that's 13 the Sperling well. Those two, there is one in Section 19 too. I think all of them are plugged off, they haven't applied for 14 15 commingling orders. It has been marginal production, I assume, 16 at least recent reports do not indicate production from those 17 Dakota zones. Q. Now, Exhibit Number Two, is that a log of the subject 18 well? 19 Yes, it is, it's a dual-induction log. 20 A. What have you marked on it? 21 Q. I have marked on the two-inch scale the top of the 22 A. 23 Point Lookout. I have marked at the bottom of the two-inch

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A. I have marked on the two-inch scale the top of the
Point Lookout. I have marked at the bottom of the two-inch
scale, around forty-five hundred. I don't have it right in
front of me, Mr. Nutter. What I considered the bottom of the

i Point Lookout. I then marked the area I consider as the 2 Mancos Point Lookout transition zone. I marked the top of 3 the Gallup at where I show the Skelly, which is around 4 fifty-five hundred or in that area. The Mary is at fifty-5 seven hundred. I've marked it on the map and also the 6 additional zone that I call the Bottom Gallup here. 7 Now, Mr. Bigbee, does the Gallup make any great Ç. 8 volume of gas? 9

A. I believe this will have a rather strong high ratio of gas. I have the well, for instance, in -- the other two 10 wells in Section 10. The Dunn No. 1 is going almost largely, 11 it has become guite high ratio, the 110, they are all 12 operated by --13

Do you have a GOR, gas-oil ratio? Q.

No, but I think I could obtain that information. A. 15 Could you get that and then furnish it to the 16 Q.

Examiner? 17

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Yes, I'm under the impression that the Campos 110, 18 A. I think I can approximate it. I think the Campos 110 produces 19 approximately a hundred thousand a month of gas and about five, 20 four to five barrels of oil. 21

MR. NUTTER: Now, that's from the Gallup?

It's from the Gallup. A.

MR. NUTTER: So it is essentially a gas well then? It's real marginal, but all of these wells in this Á.

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1 area cone close, they are still categorized as oil wells so 2 they are a little less than your twenty to one or whatever 3 that breaks out, two thousand to one.

(Mr. Kellahin continuing.) Now, if you include the 0 5 Mancos in that would it materially change the production in 6 your opinion, the GOR?

7 I don't think so. Actually nobody has opened those A. 8 zones up above that are indicated to have something above the Skelly and I frankly don't know what they would do and 9 10 I have not opened them for that reason because I know of no 11 one in the area that has opened anything higher than the 12 Skelly. There is one sand north in the Escrito that they 13 call the Lower Mancos, above the Skelly, that I do have open 14 and where I have it opened it is the same pressures.

15 Do you have any information on the Dakota, any tests? Ç. Yes, it looks like we were operating that on a 16 A. 17 piston to clean it up. I wouldn't say it is fully cleaned up 18 because we don't have a gas connection and we had a gas chart there and it was appearing that we were making approximately 19 three hundred thousand cubic feet of gas a day. I would 20 21 estimate very preliminarily and I know it's probably other than a layman's expert wouldn't estimate what the Gallup is 22 going to do but it's going to do over a hundred thousand a 23 24 day, I believe, based upon a preliminary spot. I believe 25 the two zones have an expectancy of making about a half a

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1 million a day and probably five, six, seven of oil. If we 2 get any oil it will be out of the Gallup. We get about a 3 barrel a day from the Dakota.

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4 MR. NUTTER: Well, now, if your Dakota was making three hundred thousand a day and hadn't cleaned up, what do 5 you think it would ultimately produce after it had a chance 6 7 to clean up? Would it be up to half a million by itself? I don't know that it would but we are pretty close. 8 A. We started out after we were able to run it on a piston we 9 were doing about two hundred thousand a day and after it 10 leveled out for a few days at three hundred thousand we shut 11 it in. We've been afraid to represent to potential gas 12 purchasers that it would do more. 13

14 MR. NUTTER: So you figure the two zones together15 might make the half a million?

I think the two zones together will make between 16 A. four and five hundred thousand. I hope I can get that in the 17 line and if they will do that J think it would make it 18 economical to drill out other acreage on the same basis but 19 neither zone alone at this time will economically justify --20 MR. NUTTER: When was this well drilled, Mr. Bigbee? 21 A. I drilled this well this spring. 22 MR. NUTTER: I noticed the log was dated 4-20 so 23 that is when it was drilled then? 24

A. Yes. That was the day when the dual induction --

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1 that was an open-hole log and that was when it had been 2 completed. 3 0 (Mr. Kellahin continuing.) Is the ownership of these 4 zones common throughout? Yes, it is. 5 Α. Q. Royalty? 6 Royalty, there is no override on the Dunn No. 2 and Α. ĩ it's a Federal lease. 8 And BCO owns the entire working interest? 0 9 87501 morrish reporting service General Court Reporting Service Meia. No. 122. Santa Fe. New Mexico 87 On the west half of Section 10. On the east half 10 λ. of Section 10 BCO is the operator of the Gallup rights only. 11 I think that was initially a farmout from Southern Union 12 production. We do not own the rights on the east half of 10 13 No. in the Dakota. 14 That is not involved in this one? Q. sid 15 Calle 825 It is not involved, no. Ă. 16 Q. Now, for purposes of allocation between the two 17 zones, would you advocate allocation production on the basis 18 of three to one as you've testified as between the Gallup and 19 the Dakota. 20 Yes, at this time I would. What I would like to do, A. 21 assuming I was given an order to commingle them, I would like 22 to go ahead and clean up that Gallup and get about as accurate 23 a test as I did on the other one and apply a factor that we'd 24 have, it looks like it would be within that range. 25

		Page13
	1	9 Will you furnish the results of that test to the
	2	Commission?
	3	A. Yes, I will.
	4	0. Were Exhibits One and Two prepared under your
	5	supervision?
	6	A. Yes, they were.
	7	MR. KELLAHIN: At this time I would like to offer
	8	into evidence Exhibits One and Two.
87501	9	MR. NUTTER: BCO Exhibits One and Two will be
exico 8	10	admitted into evidence.
reporting service ur <i>Reporting Service</i> 2, Santa Fe, New Mexico 8 (505) 982-9212	11	(THEREUPON, BCO Exhibits One and Two were
	12	admitted into evidence.)
. a <u>s</u> :	13	
sid morrish General Co Calle Mejia, No. 12 Calle Mejia, No. 12	14	CROSS EXAMINATION
	15	BY MR. NUTTER:
825 (16	Q Mr. Bigbee, where is the pipe set in this well, the
	17	long string?
	18	A. Yes, I can show you a log, peculiarly I've got a
	19	log that shows precisely where it's set.
	20	Q. I'm interested in the location of the perforations
	21	too.
	22	A. Yes, now, on the TDT log, the bottom of the long
	23	string is at sixty-seven hundred and thirty feet.
	24	Q. Okay.
	25	A. At that point there is a seven-foot joint that we

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1 used to run our cement shoe and so forth on and it is shown on 2 a TDT log that I've got here should that be wanted.

I've got a list, I can either read them into the 3 record or I've got a completion report of everything that 4 has been done. 5

Maybe that would be satisfactory as an exhibit. Q. 6 It shows the zones that have been done. At the A. 7 sixty-seven, thirty what I did, I didn't drill through that 8 Dakota zone, I was suspicious of a fracture at the time to 9 that Bottom Dakota and I drilled just into the top of it 10 about five feet. The TDT log shows almost precisely what I 11 did. I pulled my long string up approximately five feet 12 from the very bottom and then we cemented. We ran a three-13 stage cement job to the surface. We drilled through that 14 and approximately five feet of open hole above where I had 15 that cement and then we water fraced that zone. 16

Q. And then you perforated into the Granerous and the 17 Dakota and that test that you were talking about awhile ago 18 was from those two zones? 19

It was from those three zones, yes, that Dakota I A. 20 have open with an open hole, the Lower Dakota, the Lower 21 Granerous, the Upper Granerous and the Greenhorn. 22

Q. And now you've got a bridge plug in it?

24 A. At sixty-two hundred feet which you will notice 25 is substantially above the Greenhorn and below the Gallup.

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	1	Q You have already actually perforated into the Gallup?
	- 2	A Yes, sir, I have perforated and I have fraced.
	3	And it's trying to clean itself up?
	4	A. It's trying to clean itself up. I completed the frac
	5	just last week.
	6	Q And you cleaned it up and got a good test then
	7	you would go back in and drill out that bridge plug and throw
	8	it all together?
	9	A. With the permission of the Commission. In fact, when
7 17 4.7 04 (CAC) SHOR Y	10	I ran the tubing back in the hole I put a drill bit at the
	11	bottom of it.
	12	MR. KELLAHIN: Mr. Bigbee, I hand you what has been
	13	marked as Exhibit Number Three, is that a record of the
	14	completion of the well?
	15	A. Yes, this is a rather complete record prepared by
	16	my son from information I furnished. I was present at all
	17	completions.
	18	MR. KELLAHIN: You have examined it and in your
	19	opinion it is correct?
	20	A. It is correct.
	21	MR. KELLAHIN: I offer into evidence Exhibit Number
	22	Three.
	23	MR. NUTTER: BCO Exhibit Number Three will be
	24	admitted into evidence.
	25	

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1	(THEREUPON, BCO Exhibit Number Three was
2	admitted into evidence.)
3	MR. NUTTER: Are there any further questions of
4	Mr. Bigbee? He may be excused.
Ę	(THEREUPON, the witness was excused.)
(MR. NUTTER: Do you have anything further,
7	Mr. Kellahin?
ł	MR. KELLAHIN: No, Mr. Nutter. Thank you.
9	MR. NUTTER: Does anyone have anything to offer in
11	Case Number 5736? We will take the case under advisement
1	and the hearing is adjourned.
1:	(THEREUPON, the hearing was adjourned.)
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REPORTER'S CERTIFICATE

1, SIDNEY F. MORRISH, a Certified Shorthand Reporter,
do hereby certify that the Coregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceedings to the best of my knowledge, skill and
ability.

Sidney F. Morrish, C.S.R.

I do hereby certify that the foregoing is a complete received of the proceedings in the Exerciser incoming (2000 20. 5736 heard by me on 1976 New Mexico Oil Conservation Commission

sid Imorrish reporting service General Court Reporting Service 825 Calle Mejia, No. 122, Santa Fe, New Mexico 87501 Phone (505) 982-9212

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MR. STAMETS: We will call Case 5736,

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MR. CARR: Case 5736, application of BCO Inc. for downhole commingling, Rio Arriba County, New Mexico.

Mr. Examiner, we have received a request that this case be continued to the Examiner Hearing to be held at this place on September 1, 1976.

MR. STAMETS: The case will be so continued.

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REPORTER'S CERTIFICATE

I, SIDNEY F. MORRISH, a Certified Shorthand Reporter,
do hereby certify that the foregoing and attached Transcript
of Hearing before the New Mexico Oil Conservation Commission
was reported by me, and the same is a true and correct record
of the said proceedings to the best of my knowledge, skill and
ability.

Sidney F. Morrish, C.S.R.

1 do hereby certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 5736 heard by me on 578 1976 Rechard by Termore, Examiner

New Mexico Oil Conservation Commission

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- CASE 5776: Application of Continental Oil Company for an unorthodox location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its James Ranch Unit Well No. 9 to be drilled at a point 1930 feet from the North line and 660 feet from the West line of Section 31, Township 22 South, Range 31 East, Los Medanos-Morrow Gas Poel, Eddy County, New Mexico, the N/2 of said Section 31 to be dedicated to the well.
- CASE 5777: Application of Gifford & Mitchell and M. B. Wisenbaker for pool creation, pool rules, and a nonstandard gas spacing unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new gas pool for Atoka production for its Horseback Well No. 1 located 1000 feet from the South line and 1930 feet from the East line of Section 33, Township 26 South, Range 36 East, Lea County, New Mexico, the promulgation of pool rules therefor, including a provision for 640-acre spacing and approval for a 589,52-acre non-standard gas spacing unit comprising all of partial Sections 33 and 34 of the eforesaid Township.
- CASE 5778: Application of Gas Company of New Mexico for underground gas storage findings, Eddy County, New Mexico. Applicant, in the above-styled cause, pursuant to Section 65-9-5 NMSA 1953 Comp., seeks a decision from the Commission containing findings as to the propriety of utilization for underground gas storage of the sub-surface strata from the top of the Morrow clastic stratum to the top of the Barnett stratum underlying Sections 15, 16, 17, 20, 21, 22, 27, 28, and 29, Township 16 South, Range 27 East, Eddy County, New Mexico.
- CASE 5779: Application of Agua, Inc. for an extension of time and amendment of Order No. R-4495-A, as amended by N-4495-D, Lea County, New Mexico. Applicant, in the above-styled cause, seeks amendment of Order No. R-4495-A, as amended by Order No. R-4495-D to permit disposal, after the current October 1, 1976, deadline, of produced salt water through perforations from 4230 feet to 4320 feet in its SWD Well No. C-2, located in Unit C of Section 2, Township 22 South, Range 32 East, Lea County, New Mexico. Applicant seeks the amendment of said order to permit such disposal for an additional 30-day period or until it is able to get electrical power to its Blinebry-Drinkard SWD System Well No. A-22, located in Unit A of Section 22, Township 22 South, Range 37 East, Lea County, New Mexico, whichever comes later.
- CASE 5262: (Reopened) (Continued from September 1, 1976, Examiner Hearing)

In the matter of Case 5262 being reopened pursuant to the provisions of Order No. R-4822-B, which order extended the special pool rules for Southwest Media-Entrada Oil Pool, Sandoval County, New Mexico, including a provision for 160-acre spacing and proration units and a special depth bracket allowable of 750 barrels of oil per day. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing and why the special depth bracket allowable should not be rescinded.

CASE 5736:

(Continued from September 1, 1976, Examiner Hearing)

Application of BCO Inc. for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Basin Dakota Gas Pool and Lybrook-Gallup Oil Pool and undesignated Greenhorn and Mancos production in the wellbore of its Dunn Well No. 2, located in Unit F of Section 10, Township 23 North, Range 7 West, Rio Arriba County, New Mexico.

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Dockets Nos. 25-76 and 26-76 are tentatively set for hearing on September 15 and 29, 1976. Applications for hearing must be filed at least 22 days in advance of hearing date.

DOCKET: FXAMINER HEARING - WEDNESDAY - SEPTEMBER 1, 1976

9 A.M. - OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Daniel S. Rutter, Examine., or Richard L. Stamets, Alternate Examiner:

- CASE 5747: Application of Atlantic Richfield Company for a non-standard gas proration unit, unorthodox location, and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a previously established 185-acre non-standard Eumont gas proration unit comprising the SW/4 and SW/4 NW/4 of Section 19, Township 21 South, Range 36 East, Lea County, New Mexico, to be simultaneously dedicated to applicant's State "F" DE Wells Noc. 1 and 3, at unorthodox locations in Units E and K, respectively, of said Section 19.
- CASE 5748: Application of TERRAPET Management Corporation for an uncrthodox gas well location, Chaves County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of a well to be drilled at a point 990 feet from the South and West lines of Section 31, Township 14 South, Range 28 East, Buffalo Valley-Pennsylvanian Gas Pool, Chaves County, New Mexico.
- CASE 5749: Application of Southern Union Supply Company for an unorthodox gas well location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Gallagher State "8" Well No. 3, proposed to be drilled at a point 660 feet from the South line and 1980 feet from the East line of Section 8, Township 17 South, Range 34 East, West Vacuum Field, Lea County, New Mexico.
- CASE 5750: Application of Cities Service Oil Company for an unorthodox location, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Southeast Maljamar G-SA Unit-Tract 1 Well No. 4 to be located 1355 feet from the South line and 1135 feet from the East line of Section 30, Township 17 South, Range 33 East, Maljamar Grayburg-San Andres Pool, Lea County, New Mexico.
- CASE 5751: Application of Phillips Petroleum Company for a special allowable. Lea County, New Mexico. Applicant, in the above-styled cause, seeks a capacity allowable for its U. S. Minerals Well No. 4 located in Unit O of Section 30, Township 17 South, Range 33 East, Maljamar Grayburg-San Andres Pool, Lea County, New Mexico, said well being a direct offset to an active waterflood project.
- <u>CASE 5752</u>: Application of Bettis, Boyle & Stovall for a special allowable, Lea County, New Mexico. Applicant, in the above-styled cause, seeks a capacity allowable for its V. H. Justis Well No. 2 located in Unit D of Section 20, Township 25 South, Range 37 East, Jalmat Oil Pool, Lea County, New Mexico, said well being a direct offset to an active waterflood project.

CASE 5262: (Reopened)

In the matter of Case 5262 being reopened pursuant to the provisions of Order No. R-4822-B, which order extended the special pool rules for Southwest Media-Entrada Oil Pool, Sandoval County, New Mexico, including a provision for 160-acre spacing and proration units and a special depth bracket allowable of 750 barrels of oil per day. All interested parties may appear and show cause why said pool should not be developed on 40-acre spacing and why the special depth bracket allowable should not be rescinded.

CASE 5737: (Continued & Readvertised)

Application of Howard Boatright for amendment of Order No. R-5208, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Order No. R-5203 which authorized salt water disposal into the Delaware formation through applicant's State CS Well No. 1, located in Unit L of Section 17, Township 21 South, Range 27 East, Eddy County, New Mexico. Applicant seeks to increase the maximum injection pressure for said well from 400 psi to 800 psi, and also to amend the specified packer setting depth from 2975 feet to 2585 feet.

CASE 5736:

36: (Continued from August 18, 1976, Examiner Hearing)

Application of BCO Inc. for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Basin Dakota Gas Pool and Lybrock-Gallup Oil Pool and undesignated Greenhorn and Mancos production in the wellbore of its Dunn Well No. 2, located in Unit F of Section 10, Township 23 North, Range 7 West, Rio Arriba County, New Mexico.







Care 5736

KELLAHIN AND FOX ATTORNEYS AT LAW BOO DON GASPAR AVENUE POST OFFICE BOX 1760 SANTA FE, NEW MEXICO 87501

July 16, 1976

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TELEPHONE 982-4315 AREA CODE 505

Mr. Joe Ramey, Secretary-Director New Mexico Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico 87501

Dear Joe:

JASON W. KELLAHIN ROBERT E. FOX W. THOMAS KELLAHIN

> Enclosed please find the original and two copies of the application of BCO Inc. for commingling of production in the well bore, Rio Arriba County.

We would appreciate this being set for hearing on August 18, 1976.

Yours very truly,

Jason W. Kellahin

CC: Mr. Bob Bigbee

JWK:kjf

Enclosure

BEFORE THE

OIL CONSERVATION COMMISSION OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF BCO INC., FOR APPROVAL OF COMMINGLING OF PRODUCTION IN THE WELL BORE, RIO ARRIBA COUNTY, NEW MEXICO

APPLICATION

COMES NOW BCO, INC., and applies to the Oil Conservation Commission of New Mexico for approval of commingling of production in the well bore in its Dunn No. 2 well, located 2070 feet from the North line, and 2260 feet from the West line, Section 10, Township 23 North, Range 7 West, N.M.P.M., Rio Arriba County, New Mexico, and in support thereof would show the Commission:

1. Applicant proposes to commingle production from the Basin Dakota Gas Pool, an undesignated Greenhorn pool, and the Mancos formation, which formation includes, among others, the Lybrook-Gallup Pool.

2. Pressures in the different formations are such that no damage will result to any formation as a result of downhole commingling of production.

3. The correlative rights of all interest owners, including royalty owners will be fully protected, and the correlative rights of offset operators will not be impaired by the proposed commingling.

4. Approval of this application will result in a greater ultimate recovery of hydrocarbons from the formations involved, and will prevent waste.

WHEREFORE applicant prays that this application be set for hearing before the Commission or the Commission's duly appointed examiner, and that after notice and hearing as required by law the Commission enter its order approving commingling of production in the well bore as proposed.

- 2 -

Respectfully submitted, BCO, Inc.

KELLAHIN & FOX By, P. O. Box 1769 Santa Fe, New Mexico 87501

ATTORNEYS FOR APPLICANT

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BEFORE THE OIL CONSERVATION COMMISSION OF THE STATE OF NEW MEXICO

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1112 1010	OSE OF CONSI	DERING:		- 7.0.2
			CASE NO	
			Order No.	R- <u>53/0</u>
FOR DOWN	NION OF BCO HOLE COMMING NEW MEXICO.		TBA	R
	<u>0</u>	RDER OF THE COM	MISSION	
BY THE C	COMMISSION:			September 29
Thi	.s cause came	on for hearing	at 9 a.m. on	Rugus t- 18
19 <u>76</u> ,	at Santa Fe,	New Mexico, be	fore Examiner_	Daniel S. Nutte Richard L. Sta
a quorum and the		day of Au nt, having cons ons of the Exam	idered the tes	
FIL	NDS:			
	e Commission	ublic notice ha has jurisdictic		
(2)	That the a	pplicant, <u>BC</u>	O Inc.	, is t
owner an	nd operator o	f the <u>Dunn W</u>	ell No. 2	, locate
in Unit	F of Sec	tion <u>10</u> , Tow	mship <u>23</u>	North _, Range
	West , NMP	M, <u>Rio Arriba</u>	County, New M	exico.
(3) Gellup, A und	Basin-Dakot	pplicant seeks enhorn, and Ma		ommingle <u>Lybro</u> production
within t	the wellbore	of the above-de	escribed well.	
	That from	the storesaid	pools and zon	nes, the
(4)	٦		<i>I</i>	n only.
	well is capa	ble of low marg	final productio	-
subject	well is capa — That from	ble of low marg	final productio	zone, the
subject (5	well is capa	ble of low marg	5	zone, the
subject (5	well is capa —— That from — <u>well is capa</u>	ble of low marg	inal productic	zone, the
subject (5) subject (5)	well is capa That from well is capa) That the p	ble of low marg	inal production	<u>zone, the</u> n only, t in the recove <i>and zone</i>

dr

-2-	
Case No.	
Order No.	R-

(•) That the reservoir characteristics of each of the pools subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.

(¥) That to afford the Commission the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the <u>Aztec</u> district office of the Commission any time the subject well is shut-in for 7 consecutive days.

(8) That in order to allocate the commingled production

to each of the commingled zones in the subject well, applicant should consult with the supervisor of the Azta The percent of the commingled production should be the Commission after completion of the well to dete the undesignated Greenhorn and nercent: Maners - Dalle in allocation the Mancos to_+ho ninaled Greenhorn Dakota production. and the zone.

IT IS THEREFORE ORDERED:

(1) That the applicant, Lybrook-C hereby authorized to commingle un	BCO Inc., is
hereby authorized to commingle un	designated Greenhorn and
<u>Mancos</u> stringer	production within the wellbore
of the <u>Dunn Well No. 2</u>	, located in Unit F
of Section 10 , Township 23	North , Range 7
West, NMPM, Rio Arriba Co (2) That completion	ounty, New Mexico. of the writ, applicant shall the commingled
consult with the Supervisor	of the Aztec Outrich Office
of the Commission and de	termine an allocation formula
for the Mancos - Galling Mon	cated to the Mancos
Greenhorn-Daksha product	ion.

(3) That the operator of the subject well shall immediately notify the Commission's <u>Aztec</u> district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Commission, a plan for remedial action.

(4) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

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