CASE 3032: Application of ROBERT G. HANAGAN for force-pooling, Eddy County, New Mexico.

(ASE NO. 3032

APPlication,
Transcripts,
SMAIL Exhibits
ETC.

August 28, 1959

Rice Engineering & Operating, Inc. Attn: Mr. N. G. Abbott P. O. Box 1142 Hobbs, New Mexico

Dear Mr. Abbotts

Thank you for your letter of August 26, 1959, concerning the income from oil salvaged from your salt water disposal system in Lea County.

As the income from sales of cil is pro-rated back to the owner of the wells participating in the system, we are cancelling the production unit number previously assigned to your salt water disposal well. The owners of the wells participating in this system will report the income from such sales under the production unit number assigned to their properties. The purchasers of the cil from your system sust be informed as to the production unit numbers involved and the amount of volume and value attributable to each number.

It will not be necessary for your company to file any reports to this Commission regarding the operation of your selt water disposal system.

If I can be of any further assistance to you, please let se know.

(ask 3032

Very truly yours,

OIL AND GAS ACCOUNTING COMMISSION

Culsia CC: Richard Rebinson CARRULL J. LEE Assistant Director

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DRAFT JMD/esr May 12, 1964

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. 3032 Order No. R- 2766

APPLICATION OF ROBERT G. HANAGAN FOR FORCE-POOLING, EDDY COUNTY,

NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on 29 , 19 64, at Santa Fe, New Mexico, before Examiner Elvis A.Utz. Examiner-duly-appointed by the Oil-Conservation Commission of New Mexico,-hereinafter-referred to as the "Commission,"-in accordance with-Rule-1214-of-the-Commission-Rules-and-Regulations,

day of May NOW, on this , 1964, the Commission, a quorum being present, having considered the applicationxxxia testimony the record, axidence and the recommendations of the Examiner, --- and being fully advised in the premises,

FINDS:

- (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, Robert G. Hanagan, seeks an order pooling all mineral interests in the Upper Pennsylvanian formation adjacent to the Indian Hills-Upper Pennsylvanian Gas Pool and underlying Section 32, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico.
- (3) That the applicant has the right to drill and has drilled his Tepee State Well No. 1-D to the Upper Pennsylvanian formation at a surface location 940 feet from the North line and 990 feet from the West line of Section 32, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico.

- (4) That there are interest owners in the proposed proration unit who have not agreed to pool their interests.
- (5) That to avoid the drilling of unnecessary wells, to protect correlative rights, and to afford to the owner of each interest in said protect unit the opportunity to recover or receive without unnecessary expense his just and fair share of the gas in the Upper Pennsylvanian formation, the subject application should be approved by pooling all mineral interests, whatever they may be, within said unit.
- of the subject well and unit.

 (7) Has research well Costs on 58,627.46

 (8) That any non-consenting working interest owner should be afforded the opportunity to pay his share of reasonable well costs to the operator in lieu of paying such costs out of production.
- That any non-consenting working interest owner that elects not to pay his share of reasonable well costs should have withheld from production his share of such costs plus an additional 50 percent thereof as a reasonable charge for the risk involved in the drilling of the well.

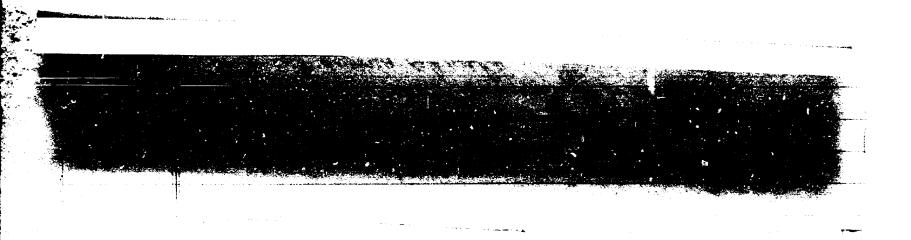
Cost of operating the subject well.

The subject well All withhell withhell from production.

That all proceeds from production from the subject well which are not disbursed for any reason should be placed in escrow to be paid to the true owner thereof upon demand and proof of ownership.

IT IS THEREFORE ORDERED:

(1) That all mineral interests, whatever they may be, in the Upper Pennsylvanian formation underlying Section 32, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico, are hereby



pooled to form a 640-acre gas promition unit, to be dedicated to the Robert G. Hanagan Tepee State Well No. 1-D, located 940 feet from the North line and 990 feet from the West line of said Section 32.

- (2) That Robert G. Hanagan is hereby designated the operator of the subject well and unit.
 - (3) That the reasonable well costs are \$158,627.46.
- (4) That within 30 days from the date of this order, any non-consenting working interest owner shall have the right to pay his share of reasonable well costs to the operator in lieu of paying his share of such costs out of production, and that any such owner who pays his share of reasonable well costs as pro-calculation history for the costs of the payoff of the costs as provided above shall not be liable for tisk charges.
- (5) That the operator is hereby authorized to withhold the following costs and charges from production:
 - (A) The pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of reasonable well costs within 30 days after the date of this order.
 - (B) As a charge for the risk involved in the drilling of the well, 50 percent of the pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of reasonable well costs within 30 days after the date of this order.
- (6) That the operator shall distribute said costs and charges withheld from production to the parties who advanced the well costs.

able cost of operating the subject well, and the operator is hereby authorized to withhold from production the proportionate share of such cost attributable to each non-consenting working interest.

That any unsevered mineral interest shall be considered a seven-eighths (7/8) working interest and a one-eighth (1/8) royalty interest for the purpose of allocating costs and charges under the terms of this order.

That any well costs or charges which are to be paid out of production shall be withheld only from the working interests' share of production, and no costs or charges shall be withheld from production attributable to royalty interests.

That all proceeds from production from the subject well which are not disbursed for any reason shall be placed in escrow in Eddy County, New Mexico, to be paid to the true owner thereof upon demand and proof of ownership; that the operator shall notify the Commission of the name and address of said escrow agent within 90 days from the date of this order.

(11) 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 herein-above designated.

KELLAHIN AND FOX ATTORNEYS AT LAW

JASON W. KELLAHIN ROBERT E. FOX

SAR EAST SAN FRANCISCO STREET 1769 FICE OCC POST OFFICE BOX 1715 1769 FICE OCC

SANTA FE, NEW MEXICO

April 2, 1964 APR B FM 1 31

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Oil Conservation Commission P. O. Box 2088 Santa Fe, New Mexico

Gentlemen:

Enclosed find original and two copies of application of Robert G. Hanagan for an order force-pooling interests and allocation of drilling costs as more fully set forth in said application, for filing.

Very truly yours,

ason w. Kellali

JASON W. KELLAHIN

jwk:mas encls.

cc with enclosure: Mr. Robert H. Hanagan

DOCKET MAILED

Case 3032 Leand. #-29-6x Rec. 5-7-64 1. Grant Hanagems Homagem there andian Hills - Tupper Perm Fast Pool. 2. Shall own 1/4 of the wint therefore Shell should pay 1/5 9 41 5 8, 6 27, 46 which is the actual cost of dilling the well. Shell should fuith fray a 50% with factor since it is obviousthat there was great risks in dulling this well or any well in the drew. Thursto W. P. S. The well to be dedecated to the wit is the Robt. G. Hanagan-#1-D Defre St. 940/44; 920/4 lind res. 32-215-246.

MAR WARE COO

BEFORE THE OIL CONSERVATION COMMISSION OF NEW MEXICO

APPLICATION OF ROBERT G. HANAGAN FOR AN ORDER FORCE-POOLING MINERAL INTERESTS IN SECTION 32, TOWNSHIP 21 SOUTH, RANGE 24 EAST, EDDY COUNTY, NEW MEXICO, INDIAN HILLS-UPPER PENNSLVANIAN GAS POOL, and FOR ALLOCATION OF DRILLING COSTS.

No. 3032

APPLICATION

Comes now Robert G. Hanagan and applies to the Oil Conservation Commission for an order force-pooling the mineral interest in and under Section 32, Township 21 South, Range 24 East, Eddy County, New Mexico, insofar as production for the Upper Pennsylvanian Gas Pool designated as the Indian Hills-Upper Pennsylvanian Gas Pool, is concerned; and for allocation of costs to be recovered by the operator, including but not limited to each owner's proportionate share of actual expenditures, reasonable charges for supervision, and a charge for the risk involved in drilling on said unit, as provided by law, and in support thereof would show:

- 1. Applicant has completed its Robert G. Hanagan No. 1-D Teepe State Well, originally projected as a Morrow test, as an Indian Hills-Upper Pennsylvanian producer.
- 2. Said well is located 990 feet from the West line, and 940 feet from the North line of Section 32, Township 21 South, Range 24 East, N.M.P.M., Eddy County, New Mexico.
- 3. Applicant is the owner or operator of the NW/4, NE/4 NE/4, SE/4, and SE/4 SW/4 of said section. The working interest as to the balance of the section, or the N/2 SW/4, SW/4 SW/4, S/2 NE/4 and the NW/4 NE/4 is owned by Shell Oil Company.



J. Harry

- 4. Said well is located within one mile of the outer boundaries of the Indian Hills-Upper Pensylvanian Gas Pool, which pool is drilled and developed on 640-acre spacing and proration units.
- 5. Operators owning the working interest in the proposed unit have been unable to agree on pooling of interests in said unit.
- 6. Royalty interest in the unit is owned by the State of New Mexico.
- 7. Approval of this application will result in the prevention of waste, avoid the drilling of unnecessary wells, and will protect correlative rights, affording to each owner his just and fair share of the oil or gas, or both, underlying said unit, without unnecessary expense.

WHEREFORE, applicant prays that this application be set for hearing before the Commission's duly appointed examiner, and that after notice and hearing as provided by law, the Commission enter its order as prayed for herein.

ROBERT G. HANAGAN

VELLAHIN & FOX P. O. Box 1769

Santa Fe, New Mexico

ATTORNEYS FOR APPLICANT

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DOCKET: EXAMINER HEARING - WEDNESDAY - APRIL 29, 1964

2 OIL CONSERVATION COMMISSION CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Elvis A. Utz, Examiner, or Daniel S. Nutter, Alternate Examiner:

CASE 3015 (Continued from the March 25, 1964 Examiner Hearing):

Application of Lone Star Producing Company for a dual completion, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of the dual completion (conventional) of its Atlantic State Well No. 1 located in Unit G of Section 30, Township 17 South, Range 36 East, Lea County, New Mexico, to produce oil from an undesignated San Andres Pool and from undesignated Abo Detritus through parallel strings of 2-3/8 inch tubing.

CASE 3024 (Continued from the April 8, 1964 Examiner Hearing):

Application of Deane H. Stoltz for approval of a non-standard unit, a dual completion, and commingling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a non-standard 80-acre unit in the North Bagley-Wolfcamp Pool comprising the SW/4 NE/4 and NW/4 SE/4 of Section 22, Township 11 South, Range 33 East, Lea County, New Mexico, approval of the dual completion (conventional) of its Deane H. Stoltz State 262 Well No. 1, located in Unit G of said Section 22, to produce oil from the North Bagley-Wolfcamp Pool through 1 1/4-inch tubing and to produce oil from the North Bagley-Upper Pennsylvanian Pool through the casingtubing annulus by means of a hydraulic pump and authority to commingle production from the North Bagley-Wolfcamp and North Bagley Pennsylvanian Pools into a common tank battery, computing production from the North Bagley-Upper Pennsylvanian Pool by the subtraction method.

CASE 3016 (Continued from the March 25, 1964 Examiner Hearing):

Application of Texaco, Inc. for special pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the establishment of special pool rules, including a provision for 80-acre proration units, for the Vacuum Upper-Pennsylvanian Pool in Sections 25 and 36, Township 17 South, Range 34 East, Lea County, New Mexico.

CASE 3031: Application of Continental Oil Company to revise the vertical limits of the Blinebry Oil Fool and Terry Blinebry Pool, Lea County, New Mexico. Applicant, in the above-styled cause, seeks an order extending the vertical limits of the Blinebry Oil Pool and Terry Blinebry Pool to encompass all of the Blinebry formation, Lea County, New Mexico.

CASE 3032:

Application of Robert G. Hanagan for force-pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order force-pooling all mineral interests in the Indian Hills-Upper Pennsylvanian Gas Pool underlying all of Section 32, Township 21 South, Range 24 East, Eddy County, New Mexico.

CASE 3033: Application of Cherry Brothers and Cabot Corporation for the creation of a new oil pool and for special temporary pool rules, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the creation of a new oil pool for Lower Wolfcamp production for its Austin State Well No. 1, located in Unit F of Section 19, Township 14 South, Range 36 East, Lea County, New Mexico, and for the extablishment of temporary pool rules therefor, including a provision for 80-acre oil proration units.

- CASE 3034: Application of Shell Oil Company for a waterflood project, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a waterflood project in the Langlie-Mattix Pool by the injection of water into the Queen and Grayburg formations through nine wells in Sections 14 and 23, Township 24 South, Range 37 East, Lea County, New Mexico.
- CASE 3035: Application of Shell Oil Company for a non-standard gas proration unit, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval of a 320-acre non-standard gas proration unit comprising the S/2 of Section 22, Township 21 South, Range 37 East, Tubb Gas Fool, Lea County, New Mexico, to be dedicated to its Turner Well No. 2, located in Unit L of said Section 22.
- CASE 3036: Application of Curtis J. Little for a pressure maintenance project, San Juan, County, New Mexico. Applicant, in the above-styled cause, seeks authority to institute a pressure maintenance project in the Gallup formation underlying its Navajo Indian Lease in Sections 21, 22, 27 and 28, Township 32 North, Range 17 West, Many Rocks Gallup Oil Pool, San Juan County, New Mexico. Initial injection will be through three wells located in Units D and O of Section 27 and Unit I of Section 28. Applicant further seeks the promulgation of special rules governing the operation of said project.

DOVERNOR

JACK M. CAMPBELL

CHAIRMAN

State of New Mexico

Bil Conserbation Commission

LAND COMMISSIONER
E. S. JOHNNY WALKER
MEMBER



STATE REGLOGIST A. L. PONTER, JR. REDRETARY - DIRECTOR

May 15, 1964

Res

Mr. Jason Kellahin Kellahin & Fox Attorneys at Law Post Office 1769 Santa Fe, New Mexico Order No. R-2706
Applicant:

Robert G. Hanagan

Dear Sire

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

Very truly yours,

A. L. PORTER, Jr. Secretary-Director

Carbon copy of order also sent to:

Hobbs OCC __X

Artesis OCC _X

Astec OCC _X

OTHER __ Kr. Richard Morris

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. 3032 Order No. R-2706

APPLICATION OF ROBERT G. HANAGAN FOR FORCE-POOLING, EDDY COUNTY, NEW MEXICO.

ORDER OF THE COMMISSION

BY THE COMMISSION:

This cause came on for hearing at 9 o'clock a.m. on April 29, 1964, at Santa Fe, New Mexico, before Examiner Elvis A. Utz.

NOW, on this 15th day of May, 1964, 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:

- (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, Robert G. Hanagan, seeks an order pooling all mineral interests in the Upper Pennsylvanian formation adjacent to the Indian Hills-Upper Pennsylvanian Sas Pool and underlying Section 32, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico.
- (3) That the applicant has the right to drill and has drilled his Tepee State Well No. 1-D to the Upper Pennsylvanian formation at a surface location 940 feet from the North line and 990 feet from the West line of Section 32, Township 21 South, Range 24 Bast, NMPM, Eddy County, New Mexico.
- (4) That there are interest owners in the proposed spacing unit who have not agreed to pool their interests.

-2-CASE No. 3032 Order No. R-2706

- (5) That to avoid the drilling of unnecessary wells, to protect correlative rights, and to afford to the owner of each interest in said spacing unit the opportunity to recover or receive without unnecessary expense his just and fair share of the gas in the Upper Pennsylvanian formation, the subject application should be approved by pooling all mineral interests, whatever they may be, within said unit.
- (6) That the applicant should be designated the operator of the subject well and unit.
 - (7) That reasonable well costs are \$158,627.46.
- (8) That any non-consenting working interest owner should be afforded the opportunity to pay his share of reasonable well costs to the operator in lieu of paying such costs out of production.
- (9) That any non-consenting working interest owner that elects not to pay his share of reasonable well costs should have withheld from production his share of such costs plus an additional 50 percent thereof as a reasonable charge for the risk involved in the drilling of the well.
- (10) That \$75.00 per month is the reasonable cost of operating the subject well.
- (11) That each non-consenting working interest owner should have his share of the reasonable cost of operating the subject well withheld from production.
- (12) That all proceeds from production from the subject well which are not disbursed for any reason should be placed in escrow to be paid to the true owner thereof upon demand and proof of ownership.

IT IS THEREFORE ORDERED:

(1) That all mineral interests, whatever they may be, in the Upper Pennsylvanian formation underlying Section 32, Township 21 South, Range 24 East, NMPM, Eddy County, New Mexico, are hereby pooled to form a 640-acre gas spacing unit, to be dedicated to the Robert G. Hanagan Tepee State Well No. 1-D, located 940 feet from the North line and 990 feet from the West line of said Section 32.

-3-CASE No. 3032 Order No. R-2706

- (2) That Robert G. Hanagan is hereby designated the operator of the subject well and unit.
- (3) That reasonable well costs are hereby fixed as \$158,627.46.
- (4) That within 30 days from the date of this order, any non-consenting working interest owner shall have the right to pay his share of reasonable well costs to the operator in lieu of paying his share of such costs out of production, and that any such owner who pays his share of reasonable well costs as provided above shall remain liable for operating costs but shall not be liable for risk charges.
- (5) That the operator is hereby authorized to withhold the following costs and charges from production:
 - (A) The pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of reasonable well costs within 30 days after the date of this order.
 - (B) As a charge for the risk involved in the drilling of the well, 50 percent of the pro rata share of reasonable well costs attributable to each non-consenting working interest owner who has not paid his share of reasonable well costs within 30 days after the date of this order.
- (6) That the operator shall distribute said costs and charges withheld from production to the parties who advanced the well costs.
- (7) That \$75.00 per month is hereby fixed as the reasonable cost of operating the subject well, and the operator is hereby authorized to withhold from production the proportionate share of such cost attributable to each non-consenting working interest.
- (3) That any unsevered mineral interest shall be considered a seven-eighths (7/8) working interest and a one-eighth (1/8) royalty interest for the purpose of allocating costs and charges under the terms of this order.

-4-CASE No. 3032 Order No. R-2706

- (9) That any well costs or charges which are to be paid out of production shall be withheld only from the working interests' share of production, and no costs or charges shall be withheld from production attributable to royalty interests.
- (10) That all proceeds from production from the subject well which are not disbursed for any reason shall be placed in escrow in Eddy County, New Mexico, to be paid to the true owner thereof upon demand and proof of ownership; that the operator shall notify the Commission of the name and address of said escrow agent within 90 days from the date of this order.
- (11) That jurisdiction of this cause is retained for the entry of such further orders as the Commission may deem necessary.

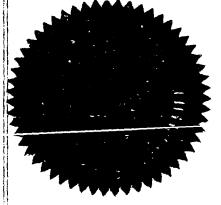
DONE at Santa Fe, New Mexico, on the day and year herein-above designated.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

JACK M. CAMPBELL, Chairman

E. S. WALKER, Member

A. L. PORTER, Jr., Member & Secretary



ROBERT J. HANAGAN 71-D TEPFE STATE INDIAN HILLS UPPER PENN, PIELD EDDY COUNTY, N.MEX.

	TOTAL PURPOSES TO MARCH! 1964			
1	TOTAL EXPENSES TO MARCH 1, 1964	77.25		
	Survey Location \$			
•	Surface Damage	25 0. 00		
	Location (dirt work)	375,00		
1	Legal Work (Title ck. etc.)	115.34		
1	Drilling cost (contractor)	129,987.50		
<u>\$</u>	Engineering, ing. surf.&			
1	intermediate osg. etc.			
	3 days 3 \$125/day	375.00		
**************************************	Total Cost to Csg. Pt. &			
* \$	Landing of Prod. Strg.		\$131,180.09	
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GS 616	Union Supply (truck freight)	6,455.68		
GS 616	Union Supply (2 7/8" tbg.)			
12542	Union Supply (fittings	72.06		
12586	Union Supply (fittings	165.25		
6	Union Supply (Amas tree &	•		
	accessories) Inv.#12437,			
	12724,12441,11868, 12818	5,867.86		
	Union Supply (Freight) Inv. ?			
	12724, 11868 & DM12441	210.16		
	Halliburton Cementing &			
	Cementing Services, Inv.#			
	BC792065 & CS785827	3,921.50		
1068	Groendyke (fresh water)	220,28		
1920	W. L. Kidd (brine water)	89.61		
2845	Smith & Son (Welding)	21.63		
528	Safety Anchors	112.68		
) ~0	Well Signs & Posts	24.57		
2 2 3	Tank Rental (cement job)	206.00		
5430	Lynes, Inc., Prod. packers	2,159.90		
الر ب ر	Labor (Lynes)	240.00		
tr s		240.00		
H-1-	Batemen Whitsitt, workever	1,332,48		
28006	unit	1,772,40		
616	Stevenson Tank Co.,	m C lio		
	roustabout work	76.49		
9075	Oilfield Tool & Supply, rental	a loop om		
	tools & trucking	1,438,87		
3726	S & M Rental	75.95		
	Engineering & Supervision,			
	completion 10 days @\$125/day			
	Legal Fees	759.20		
	Oil Reports & Gas Services,			
•	dead weight press, tests			
	Jan. & Feb.	324.45		
	District & Overhead Exp. incl.			
	Geological	1,200.00		
	Total Cost of Completion &			
	Expenses to Date		27,447.37	
	TOTAL WELL COST			\$158,627.46
	The second secon			

3/8 of Total Cost \$59,485.30

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 2
CASE NO. 3032

TES1 PERIOD	DURATION	TWP	VOLUME (24 Hour Flow Rate)
181	24 hr.	23327	5194 MOF
Ond	3 12 4	2273#	3427 NCF
}rd	3 hr.	2301#	7192 MCF
4 ch	3 hr.	23 32 #	5358 MOF
5th	3 hr.	2361#	2040 MCF
6th	3 hr	2355#	1231 MCF

TSIP 2350#

GOR 93,755/1

150 Grains H₂S/100 cu. ft.

0.4% Inert Gas

Gas Gravity .648

Robert G. Hanagan #1-D Topeo State Bddy County, New Mexico

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 5
CASE NO. 3032

-	COST FIGURES FOR INDIAN BASIN-INDIAN HILLS FIELDS Contractor's						
OPERATOR	Total Depth	Total Cost	Hew Completed	Fostage Bid	Hud Bill	Average Cost Per Peet	
Carper Atlantic	7690	N,A,		\$9.55 to 7800'	N,A,	X,A.	
Union Oil Co.	9755	\$223,957.00	Dry Hole	\$9,40	N.A.	\$22,96	
Sun Oil Co.	9300	\$208,800.00	Dual	\$9.00	X,A,	\$22.45	
Redfern Dev. Corp.	9500	\$195,150,00	Dual	\$9.50	\$10,000 Est.	\$20.54	
Narathon N. Indian Basin #1	10,100	\$380,553.00	Dua1	N.A.	\$47,420.00	\$37.68	
N, Indian Basin #2	9500	\$255,298,00	Dual	\$10,35	\$25,000 Bet.	\$27.96	
Penrec 011 Corp.	9560	\$210,897,25	Pual	N,A.	M.A.	\$22.06	
John H. Trigg "IB"	9476	\$225,000.00	Single	N,A.	\$25,000.00	\$23.74	
John H. Trigg "CJ"	7850	N.A.	Single	\$9,00	\$15,000,00°	N.A.	
R. Lowe #1 Indian Hills	10,212	\$343.983.70	Single	N,A.	N.A.	\$33,68	
indian Basin #1-C	9405	\$209,184.98	Single	N.A.	N.A.	\$22,24	
R. N. Enfield	8945	\$165,000.00	Single	N,A,	\$25,000.00	\$19.33	

Average Cost/ ft, (5 wells) Single Completion - \$24.10

WELL COMPLETION REPORT

ROBERT G. HANAGAN #1-D TEPEE ST.

INDIAN HILLS UPPER PENN, FIELD

EDDY COUNTY, N.MEX.

LOCATION: 940' INL & 990 IWL of Section 32, T-21-S, R-24-B, Eddy

County, New Mexico.

COMMENCED: December 6, 1963

COMPLETED: January 23, 1964

TOTAL DEPTH: 7366 (-3517)

3838 G.L.: 3849KB ELEVATION:

RESULTS: Completed as a shut-in gas/condensate well.

Flowed 28.5 MNCFGPD plus unestimated amount of INITIAL POTENTIAL: condensate on 1" choke, FTP 1200#, SIP 2510#

BLECTRIC LOGS:

200' to 7350' (bottom 16' samples lest) Ty SAMPLE LOG:

Locally called "Cisco-Canyon Carbonate Pay" of Upper PAY ZONE: Pennsylvanian Age. No samples or logs are available in the pay zone itself, but by correlation from samples above the pay, drilling time in the pay zone, the way the formation drilled and extreme lost circulation encountered, we believe the tep of the carbonate section

is at (7355) and the highly fractured lost circulation zone was the last 4 to 6 feet drilled. Subsequent pressure tests agree with other wells completed in this

zone in the immediate area.

CASING RECORD: Set 11 3/4" @ 199' w/175 sx.(circ.); 8 5/8" @ 3214' w/1700 sx. (circ.) 2 7/8" @ 5574 w/1350 sx (circ.).

PERFORATIONS: None, OH 7366-5574

TREATMENTS: Completed natural.

DRILLSTEN TESTS: None.

CORES:

FORMATION TOPS & MARKERS: (By samples & drilling time)

> Glorietta 2329 (+1520) Wolfcamp 6670 (-2821)Cisco 7355 **(-350**6)

DRAD WEIGHT PRESSURE TESTS:

1/25/64 - 2337# 1/30/64 - 2540# 2/4/64 - 2343# 2/9/64 2/14/64 - 2341# - 2343# 2/19/64 - 2343# 2/24/64 - 2343# 3/23/64 - 2348#

> BEFORE EXAMINER UTZ OIL CONSERVATION COMMISSION EXHIBIT NO. 4 CASE NO. 3032

GENERAL DISCUSSION

The well was spudded on December 6, 1963, on a farmout arrangement from Marathon Oil Company, with Marlo Drilling Company of Midland as the drilling contractor. After setting surface casing at 199 feet, the well was mist drilled, carrying a considerable amount of formation water, to the intermediate casing point of 3216 feet. Some difficulties were encountered in setting this casing, mainly getting the cement circulated to surface. After using 1475 sxs. without circulating cement, it was necessary to go in from top with one inch tubing and spot five plugs, 25 sxs. per plug, before cement was circulated. Drilled out from under intermediate casing with air to 6576 and mudded-up just above expected top of the Wolfcamp. At 7227, the well started kicking which lasted several hours. The hole was completely mudded-up at this point with 8.6 to 8.8 1b. weight, water loss below 10, and viscosity about 43. This was probably a high pressure-low volume zone, since the zone was killed with the same weight mud as was in the hole when it was encountered. The pressure steadily decreased and was dead before the weight material arrived on location. This zone, by samples and drilling time, was a tan to brown fossiliferous, clean, dense limestone. Interval wise, the #1 Indian Hills well drillstem tested a zone (DST #3) about 150 feet above the carbonate pay, which is about the same interval as the 1-D Tepes zone, but it was a sand zone. No more trouble was noted from this zone, even on a trip for a new bit at 7274. A definite change in drilling time was noted at 7355. The interval from 7360-66, drilled like a highly fractured formation, rotary table bounced, torque, and lost circulation. In excess of 300 bbls, of mud was pumped into this lost circulation zone before the bit plugged, making it necessary to come out of hole. The gas evidently followed the drillstem out of the hole until the hydrostatic head was insufficient to hold it down. Shaeffer type blowout preventor was in place and had been tested. The sudden initial pressure must have been great, buckling the plates or rams when the preventor was closed. After all of the personnel had cleared the location, the well caught fire and completely burned the rig and associated equipment. Mr. Adair was called and after several days of clearing off the debris, the fire was extinguished on January 12, and under control by the evening of the 13th. Well was out of control for a period of 10 days. It was officially completed and shut-in on January 23, 1964. There were no casualties during the entire operation. As noted by a series of dead weight pressure tests over a period of time, no "thief zone" appears to be present, as the pressures have remained static and are comparable to other shut-in gas wells in both the Indian Hills and Indian Basin Upper Penn Fields. There is no doubt in our minds that the well is completed in the regular upper Penn gas field pay and that it will probably be one of the better gas producers in the area.

MARLO DRILLING COMPANY

ROOM 105-A WILKINSON-FOSTER BLDG.

MIDLAND, TEXAS November 18, 1963 PHONE MU 2-3251

OX

Hanagan and Hanagan 613 Mimosa Roswell, New Merico

> Re: Indian Basin Well Eddy County, New Mexico

Gentlemen:

Marlo Drilling Company will drill your above captioned well to a total depth of 9,550 ft. for a total sum of \$129,987.50.

Marlo Drilling Company will furnish the following;

- 300 ft. of new 13 3/8" spiral well pipe. 3,100 ft. of new 8 5/8" pipe.
- Cement and cementing services to circulate the above strings.
- All mud.
- 3-Drill stem tests.
- Logs to the amount of \$3,000.00
- All water and fuel.
- 20" Conductor pipe.

Operator to furnish the following;

- Location and roadways.
- 4월 " casing.
- Cement and cementing services of 42" casing. All third party charges after 9,550 ft. depth is reached.

Day Work Rates to be:

Depth

WDP

WODP

01 to 9,5501

\$950.00

\$850.00

BEFORE EXAMINER UTZ OIL CONSERVATION COMMISSION EXHIBIT NO. $\underline{\mathcal{S}}$ CASE NO. 3032

(1)

Hanagan and Hanagan Roswell, New Mexico November 18, 1963

We wish to thank you for the opportunity of submitting this bid and we will do our utmost effort to do you a complete and satisfactory job.

-2-

If the foregoing is acceptable to you, please sign the enclosed copy of this letter and return to me for our records.

> Yours very truly, Marlo Drilling Company

D. N. Moody

DNM/oc

ACCEPTED:

HANAGAN and HANAGAN

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ROBERT G. HANAGAN

PHONE 623-5083



HUGH E. HANAGAN

P. O. BOX 1737 ROSWELL, NEW MEXICO

Hanagan & Hanagan

December 3, 1963

Harle Drilling Company Reom 105-A, Wilkinson-Fester Building Midland, Texas

Att: Mr. D. N. Moody

Re: Robert G. Hanagan #1-D Topes State, NYINWI, Section 32, T-21-S, R-24-E, Eddy County, New Mexico.

Dear Mr. Moody:

Please find enclosed a dated and executed copy of the letter agreement from you covering your turnkey drilling bid on the above captioned well. This letter is being returned to you subject to the addition of the following which are to be furnished by the contractor:

- (1) Coment and comenting services to circulate the 20 inch conductor pipe.
- (2) You agree to land 41" easing.

The balance of the letter remains the same and if the two above stated changes meet with your approval please so signify by dating and executing the enclosed copy in the space provided and return same to me for my file. Yould you please have your insurance company send us a Certificate of Insurance.

Yours very truly, HAMAGAN & HAMAGAN

AGREED AND ACCEPTED

THIS 5 BAY OF

DECEMBER, 1963.

Marle Drilling Company

By Shorty

Robert G. Hanagun

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
EXHIBIT NO. 8-8
CASE NO. 3632

SUPPLEMENTAL AGRESSIEM

But By C. H.

Ompany, herein called Marlo, and Hanagan & managan, herein called Hanagan, as smended by Letter Agreement dated The 3.17.3 between the same parties is hereby amended as follows:

- 2. Marie will pay all costs in connection with the work which it is required to perform including, but not limited to, all expenses arising out of any blowouts and/or well fires. In this connection, it is specifically agreed and understood that all charges made by Red Admir will be the responsibility of Marie.

It is expressly agreed and understood that someptance of this responsibility by Marlo is made as a compressive agreement only and is not intended as an admission that Marlo is responsible for the expenses of blowout and oil well fires.

Meither party admits any liability to any governmental body or

third party for loss of gas or gaseous substances.

remains 129, 987 , and no more, and it is specifically agreed that said contract price will be paid in full within one hundred (100) days from the date coment slurey can be pusped into the production casing as provided in Paragraph 1 above.

- It. Any expenses incurred by Hanagan in discharging the property from any liens which are the responsibility of Marlo shall be reimbursed by Marlo, or, at the option of Hanagan, shall be chargeable against the contract price.
- as to responsibility under that contract dated Mark 19 1913 as smended and it is not the intent hereby of any party to admit any liability of any kind in connection with the oil well fire which occurred on January 2, 1964. Further, notwithstanding anything contained herein to the contrary, it is specifically agreed and understood that should any additional socidental fires occur after the control equipment has been installed on the well site, neither party hereto contracts hereby to be responsible for some or to expend any monies in combatting such additional fires; provided, this provision shall not affect a determination whether or not the contract as smended is a turnkey contract.

THIS CONTRACT AGREED UPON AND ENTERED INTO THIS 11 THE DAY OF JANUARY, 1964, by and between the parties hereto and shall be binding upon each of their heirs, representatives and assigns.

REFORM	
BEFORE EXAMINER UTZ	,
CONSERVATION COMMISSION	- N
EXHIBIT NO 9	• •
CASE NO. 3032	_

MARLO D	RILLING COMPANY	Conta
PACTEE	De la Sanction	V.
PARTA	18.	
HANAGAN	AND HANAGAN	· · · · · · · · · · · · · · · · · · ·
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- Elister	P. Manyore.	

LD	LING ESTIMETE LEASE Indian Hills					DAY Z	oril					
	Drill and complete 7800-foot Penn gas well similar to Hanagan's Indian Hills well (4 1/2" casing and 2" tubing).				,	RAL CHECKED BY						
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	(b) Air or Gas Equipment	 		<u> </u>		 -	 	 		 -	-}	
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Rohert G. Hanagan

HONE 623-5053 J. P. WHITE BUILDING Managan & Managan

HUGH E. HANAGAN

P. G. BOX 1737 RODWELL, NEW MEXICO

April 1, 1964

Shell Oil Company P. O. Box 1858 Roswell. New Mexico

Att: Mr. Robert A. Clarke

Re: Robert G. Hanagan #1-D Topee State, NW#NW# Section 32, T-23 State R-24-E. Eddy County, New Mexico.

Dear Sir:

On various dates from 11/4/63 to 11/14/63 your company was contacted by me and offered an opportunity to join and pay your proportionate costs (3/8ths of 640 acres spacing unit) or farmout your 3/8ths interest to us in regard to the proposed drilling of the above captioned well. However, on 12/14/63 your company informed me that they were not interested in doing anything with this acreage at that time in regard to the drilling of this well. On 12/9/63 you were informed that the captioned well had been spudded and was drilling and that we were still interested in Shell joining us or farming out their interest. On 12/20/63 Mr. Jess Lindsey of your Midland, Texas, office was contacted by me on the telephone and informed that the captioned well was then drilling, and about our propositions. He reiterated that Shell was not interested in any proposition regarding their interest.

The captioned well has since been drilled and completed by us as a shut-in gas well from the Upper Penn formation. You were contacted by me on 3/23/64 and asked to voluntarily join and pay your proportionate share of the costs of this well since it falls within one mile and thus came under field rules as set up by the New Mexico Oil Conservation Commission for the Indian Hills Upper Penn gas pool. You were informed that we were willing to furnish you with any and all of the information concerning this well in order that you could arrive at a decision. On 3/31/64 you telephoned me and stated that Shell was not interested in paying their proportionate share of our costs of drilling and completing the captioned well.

If this is still Shell's decision, I would appreciate your writing me a letter to this effect at your earliest convenience for my file.

Yours very truly, HANAGAN & HANAGAN

RGH/1m

BEFORE EXAMINER UTZ
OIL CONSERVATION COMMISSION
Shell EXHIBIT NO. /
CASE NO. 3032

Robert G. Hang tau

HANAGAN

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SHELL OIL COMPANY

P. O. Dox 1858 Roswell, Hew Mexico

April 7, 1964

Subject: Eddy Country, How Mexico Condom Asica 121-2556 - State

Hanagan & Lanagan P. O. Fox A737 Roswell, May Maxico

Attention Mr. Report G. Homagan

Gentlemen:

APR

M. San

P. V.

Dr.

Grid Rose

Grid Rose

Carl Us

C

Referring to your letter of April 1, 1950, we wish to almost that you are correct in stating that we did not join you last year in the drilling or a well in Section 32, Tourship 21 South, Range 32 Rast, H.M.P.M. We have not get to the trouble of verifying the numerous dates given in your letter, but we did take the position that it would be highly impredent for Shell to drill a tract in a shut-in gas area that normal field development would prove or disprove long before the expiration of the lease thereon. We had recently peid the Same a premium price for our lease to incure that it would not be necessary to excure risks inherent in premature drilling. You assemed the farmous obligation to Marathon knowing that we had refused to join others in the drilling of this section for the same reasons. The sublease you took was previously made available to shell and others in the industry, and we had at this earlier date also concluded that the drilling of this tract would be untirely.

In the latter part of March, after your well had been drilled, you visited in our office, requesting that Shell now pay its proportionate share and join you in the ownership of the well based upon one section spacing. You stabed that the total cost would be \$165,000.00 to \$150,000.00. This Figure included the cost of your fire, as well as other related expenses. A few days later (3-31-54 according to your records), we called to advise that, subject to working out a satisfactory operating agreement dated currently, we would be willing to pay a proportionate share of the value to us of your hole in the ground and such completion as you were able to effect, but we would not pay for the fire and other such expenses. You refused such a formula as a basis for publicment, so we never requested any further well cost information. Our offer to settle on this type of basis still stands, and we would be happy to meet with you in an effort to determine an acceptable well cost.

Yours very truly,

M.a black

R. A. Glarie

RAC:LS

Roowell Division Land Department

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Out of the Division Cana For Sing

ROBERT G. HANAGAN

PHONE 623-8053



HUGH E. HANAGAN

P. O. BOX 1737 ROSWELL, NEW MEXICO

Hanagan & Hanagan

April 8, 1964

Sholl Oil Company P. O. Box 1858 Roswell, New Mexico

Att: Mr. Robert A. Clarke

Re: Robert G. Hanagan #1-D Topee State, NW4NW4 Section 32, T-21-S, R-24-E, Eddy County, New Mexico.

Dear Sir:

Certain statements contained in your letter of 4/7/64 concerning the captioned well need clarification, as I see them. The total cost figure you refer to was an estimation of what the cost might be for the drilling and completing of this well, and there was no attempt on my part to attribute any of the costs to a specific phase of the drilling and completing of this well. The figure which you, as Shell's representative, offered to pay for a 3/8ths interest in this well was \$30,000.00 which you stated was arrived at on the basis of what the well was worth to Shell. (All I can assume from this is that Shell had sufficient information about the well to arrive at an offer, thus the reason for your not wanting any information from me, even though it was offered; and further Shell must figure that a like well could be drilled and completed for a total \$80,000.00). Of course this offer is wholly unrealistic and entirely unacceptable to us. You further informed me that you were aware through Marathon Oil Company that possibly the cost figure would be less (this being known to you as around \$160,000.00) and that Shell was not interested in paying 3/8ths of any cost save and except their offer mentioned above:

We are ready and willing to furnish you with any figures as to our costs of drilling and completing this well. The point is, in my opinion, we are simply asking Shell to voluntarily pay their proportionate share of our exact cost, no more and no less.

You have informed me on two occasions that you would write a letter to the effect that Shell does not desire to pay their proportionate share of our costs of drilling and completing the captioned well. I would very much appreciate your letter to this effect, if this is still your position.

Yours very truly, HANAGAN & MANAGAN

Robert G. Hanagan

1.1.1.1. W.

RGH/1m

P. O. D. M. M. C. 2000 22 June 10 10 25

April 5, 150.

Subject: Idd, the control line inclus

Corresponding to the second

المائل تصنف الله المنفئ بمناثثة 2. 0. Don 1737 Mosmoll, Asy Marco

Acception Mr. Robert C. Managan

Genealemen:

In regly to your latter of April 6, 1974, so world life to residential that it is not our intention to close the door of higher action. on acceptable banks for porticipation in your wolf. It but be a cost - semine car scaltion that we demon justicy paying any part of the entering semination of the entering semination of the entering of the enter car chure al the cost to drill to total deput and to effect conclusion in the manner in which your well is employed, exclusive of any costs. wednesd to the five. We are usill agreeable to persicipating on this locals.

In the event you ivel that of remember one be reached on the bands on lines above, we would be hippy to meet with you and discuss your discuss regarding the cost of drilling and completing the well.

Yours very truly,

R. A. Clarke Resuell Division Land Departments

MAC:LS

bee - Area Land Department Area Production Department Production Department - Roswell Division

NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico April 29, 1964

EXAMINER HEARING

IN THE MATTER OF: Application of Robert G. Hanagan for force-pooling, Eddy County, New Mexico.

Case No. 3032

BEFORE: Elvis Utz, Examiner

TRANSCRIPT OF HEARING

MR. UTZ: The Hearing will come to order. Case 3032.

MR. DURRETT: Application of Robert G. Hanagan for force-pooling, Eddy County, New Mexico.

MR. KELLAHIN: I would like to have these marked for identification as Applicant's Exhibits Numbers One through Seven.

(Whereupon, Applicant's Exhibits
Numbers One through Seven Marked
for Identification).



DEARNLEY-MEIER REPORTING SERVICE, Inc.

MOVENDUE, N. M.

MR. KELLAHIN: Of the firm of Kellahin & Fox, appearing for the Applicant. We have two witnesses, I would like to have them sworn at this time, please.

(Witnesses sworn.)

MR. MORRIS: If the Examiner please, I would like to enter an appearance on behalf of Shell Oil Company. My name is Richard S. Morris, of the firm of Seth, Montgomery, Federici & Andrews, Santa Fe, New Mexico.

MR. UTZ: Are there any other appearances? You may proceed.

HUGH HANAGAN,

called as a witness, having been first duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

- Q Would you state your name, please?
- Hugh Hanagan.
- Mr. Hanagan, are you connected with Robert G. Hanagan in any way?
- A Yes, sir. I am a partner in Hanagan and Hanagan, and a part owner in the subject lease.
 - . MR. UTZ: What was the name, again?
 - A Hugh Hanagan.
- Q (By Mr. Kellahin) Now, are you familiar with the application of Robert G. Hanagan in Case Number 3032?



A Yes, sir.

Q What is proposed in this case?

A We seek to force pool all mineral interest owners in Section 32 of Township 21 South, Range 24 East, and to recover our exact cost in proportion to their share of the subject well located in Section 32.

Q And have you ever testified before the Oil Conservation Commission of New Mexico?

A Yes, sir.

MR. KELLAHIN: Are the witness's qualifications acceptable?

MR. UTZ: Yes, sir, they are.

Q (By Mr. Kellahin) Mr. Hanagan, directing your attention to what has been marked as Exhibit Number One, would you identify that Exhibit please, and discuss the information on that?

A Exhibit Number One is a Land Plat of the area involved. It takes in the Indian Hills-Upper Pennsylvanian Field Area, and the Indian Basin Field, both located in western Eddy County, and shows the offset lease owners of Section 32, and shows the mineral interest owners in Section 32.

Q Now, how are the different interests in Section 32 designated on the Exhibit?

A In Section 32, through a farm-out of Marathen Oil Company, Robert G. Hanagan earned the following acreage: The



IEK REFORITIVG SEI

Northwest Quarter, the Southeast Quarter, the Southeast of the Southwest Quarter, and the Northeast of the Northeast Quarter, totaling approximately four hundred acres.

- Q That is the area colored in yellow on the Exhibit?
- A Yes, sir.
- Q And who owns the balance of the acreage in that Section?
- A The balance of the acreage is owned by Shell Oil Company, totaling two hundred acres.
 - Q Now, is --
 - A Two hundred and forty acres.
- Q Is the well drilled on the -- Would you give the location of that well, first?
- A The location of the well is 990 feet from the West line and 940 feet from the North line.
- Q Now, is it in a designated oil pool, or gas pool, as designated by the Commission at the present time?
- A It is not in the pool, but it is within a mile of the pool.
 - Q Of what pool?
 - A Of the Indian Hills-Upper Pennsylvanian Field.
- Q And then it would be governed by the Rules governing the Indian Hills-Upper Pennsylvanian, would it not?
- A Yes, sir. On this Plat, the area outlined in blue is the present productive limits of the Indian Hills-Upper



Pennsylvanian Pool.

- Q Now, what are the spacing requirements of the Indian Hills-Upper Pennsylvanian Pool?
 - A The spacing is presently six hundred and forty acres.
- Q And one well would be drilled on a six hundred and forty acre unit?
 - A Yes, sir.
- Q And that is what you are seeking to form by this Application?
 - A Yes, sir.
- Q Is the well location in accordance with the Rules of the Indian Hills-Upper Pennsylvanian?
- A No, sir, the location is that of an unorthodox location.
 - Q Has it been approved?
 - A Yes, sir, it has.
 - Q Was that by Order NSL-319 entered on December 10, 1963?
 - A Yes, sir.
 - MR. UTZ: What is that location?
 - A The location of the well?
 - MR. UTZ? Yes, sir.
 - A 990 from the West line and 940 from the North line.
- Q (By Mr. Kellahin) What's the reason for the unorthodox location?



ALGUQUERQUE, N. M. PHONE 243.6691

A Mainly topography. The acreage immediately south of the well is very mountainous, and immediately south of the well is what they call the Rancher's Knolls, which is about six hundred feet of elevation change from our location to the top of the mountain, which is only a matter of several hundred feet. In other words, there isn't an abrupt topographic change there.

- Q Is the topography of Section 20 rough?
- A Yes, sir.
- Q Now, referring to what has been marked as Exhibit Number Two, would you identify that Exhibit and discuss the information heretofore on it?

A Exhibit Number Two is the Structure Contour Map on top of the Upper Pennsylvanian pay or Carbonate Section in both the Indian Hills and Indian Basin Fields. These tops are from electric logs and sample picks. The lines, red lines through the structure there, starting in the northwest side there that are labelled GFEAD, running southeast, northwest, southeast, that is one cross section which will be Exhibit Number Three, and another cross section ABC running northeast through the subject well. By the way, the subject well is named the Robert G. Hanagan Number 1-D Tepee State.

- Q Now, excuse me.
- A Now, as you can see by the Structure Map, the discovery



The other triangle wells, to the west, there is the Indian Hills discovery and the Williams discovery wells, which is not pertinent to this particular conversation, except to show the control in the area. This whole map is basically just to show that our well, even though we have no electric logs on that well, by samples, drilling time, and so forth, we have established the top of the pay and that we, by using the other control wells in the area, we can definitely prove to our satisfaction that we are in the Cisco Canyon pay or Upper Pennsylvanian pay, as the Commission calls it.

Q Now, how does the structural position of your well compare with the other wells in the area?

A Our well is 118 feet high to the discovery well, Ralph Lowe Number 1 Indian Hills in Section 22 of the same Township, 21, Range 24. It is 36 feet lower than the Trigg Number 1 IB Well located in Section 16 of 22, 24. The Trigg Well was just recently completed, within the last week actually, and also by -it is somewhat over four hundred, nearly five hundred feet high to the Inman Well in Section 3 of 22, 24. That well was just



recently temporarily abandoned after recovering some water and oil in the Cisco carbonate section.

- Q It is not a productive gas well, in your opinion?
- A No, sir, it's temporarily abandoned, but it does not appear to be productive.
- Q In your opinion, is the entire acreage you propose to dedicate to this well, productive of gas from the Upper Pennsylvanian Pool?
 - A Yes, sir, it appears to be very well structurally located.
- Q Now, referring to what has been marked as Exhibit Number Three, Mr. Hanagan, would you identify that Exhibit and discuss the information shown on it?

A Exhibit Number Three is actually two cross sections, the one on the left hand side of the Exhibit is the Southwest-Northeast Section of the Indian Hills Field in Eddy County, New Mexico. The letters above denote the location on the Structural Map. Above the columns, they are labeled A, B, and C. is the Trigg Number 1 IB Well in Section 6, of 22, 24. "B" is the Robert G. Hanagan Number 1-D Tepee State in Section 32, 21, 24. "C" is the Ralph Lowe Indian Hills Well, in Section 22 of 21, 24.

As you can see by the cross section, they are almost exactly in line with each other or on strike with each other in the Section, as we have outlined them, as you will notice, in a stratographic or columnar method. In other words, it's based



on lithology and not on electric logs.

The "A" and the "C" Wells, of course, both have electric logs which we have in our possession, and have used them in connection with cross sections here. This section here is mainly to show the type of sediment present below our tubing or open hole section. In this area, the section immediately above the Wolfcamp is predominantly black shaly type lime of Bone Springs age, and we use the basal part of it as a very good structural or sample pick.

The basal part of what we call, some operators, Marathon in particular calls it basal sand, basal entered, and they pick—their electric log picks and their sample picks are all used, the top of this sand zone is used as one stratographic picture. It is present throughout the area and it makes a good pick.

The base of the sand is what we normally call the Wolfcamp, regardless of what you encounter at the base of the sand. You may encounter a lime, although it is a different type lime than the lime above, or else you may just go right through the green shales of the Wolfcamp. The Wolfcamp is very erratic in this area in thickness. On these three wells, the thickness of the Wolfcamp is not erratic. They are on strike with each other. The radical change is from the Northwest to Southeast, as we will see in the cross section on the other side of the Exhibit. The Wolfcamp consists predominantly of gray and green shales



and lime with occasional streaks of sand towards the base.

The Trigg Well, our Number A well on the cross section, had predominantly shale with a few sand streaks -- I mean a few lime streaks and actually no sand. We may have had a couple of picks of sand right at the base, just before you entered into the carbonate pay section. There were no porosity zones encountered in the Wolfcamp or the Bone Springs in this well. There were no drillstem tests taken throughout the well including the carbonate section, no cores.

on the "B" Well or the 1-D Tepee Well, again there were no drillstem tests, and a well history will be expected later so as to show this well in more detail. But the way we have constructed this columnar section is noted above there, where the tubing is set, 2-7/8ths inch tubing, circulated in the shaded area above the dark spot, the dark spot indicating the packers, where the packers were set. Above there, the shaded area indicates the cement, and the hatched lines below the packers indicate the open hole section along with the Fish.

Now, the Fish, the space between the Fish and the packers is approximately three or four feet; between the base of the tubing and the top of the Fish is about three or four feet, but what we did was go down and tag the top of the Fish, pull up about three or four feet and cement the tubing in and circulate the cement. The fish is sitting right on bottom and the bottom



was at 7366, approximately 11 feet into the carbonate section.

The "C" Well -- By the way, these packers in the area Were set in the tight dolomite section -- I mean the lime section

 $_{\mathrm{We}}$ encountered no porosity zones in the Bone Springs nor of the Bone Springs. in the Wolfcamp with the exception of a small lime streak where we had -- where the mud was approximately one hundred and fifty feet above the top of the carbonate pay section, and where the well did kick for several hours, but the well died or was killed with the same weight of mud as when we encountered it before. Therefore, we figured the zone was a high pressure-low volume type zone before the weight material arrived on location to help weight up to kill the blowout or the slight blowout. The well was dead, and immediately forty feet or so below that zone we made a trip with the bit and we had no trouble whatsoever. That zone, or the pressure indicated in that zone was never noted

The "C" Well is the Ralph Lowe Indian Hills Number 1 Well, the discovery well for the Indian Hills Field, and the again. same lithology as the other two wells is pretty much in

You had your basal sand and your slight lime section at the top of the Wolfcamp and the shale and traces of sand at the evidence. bottom. You will notice the interval there where we did drillsten



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bone Springs just above the Bone Springs sand or the basal entered sand. That drillstem test, they had gas surfaced too small to measure, the pressures were extremely low, and the next test was the lime section, just below the basal Bone Springs sand or top of the Wolfcamp. That lime section again was tight. The other drillstem test was taken in a little sand section which was absent in the oil well or if it was there, there was just a few pieces of sand, no big sand development.

Occasionally you can get some streaks of sand in the basal part. But, in this particular well, they did have around 20 feet of fairly good sand as far as the thickness was concerned. It was shaly and tight and well cemented, and again they had gas to the surface, too small to measure and poor pressures.

The Indian Hills Well is interesting to note, in that there, actually, they drilled through the carbonate section zone, but they are actually only perforated, or the base of their present producing perforation is only 26 feet from the top of the pay section. Our well, like I said, is producing from the top 11 feet.

The Indian Hills Well, which is potentialled for 20 or 30 million, is producing from the top 26 feet. They have a bridge plus between some perforations that they did do lower down the



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hole.

The next cross section, which is Northwest-Southeast cross section of the whole area including — beginning at the Northwest side of the Indian Basin Field and going in a Southeasterly direction, ending up at the Inman Well in the Southeast of the Indian Hills Fields. This is noted on the structure map as cross section GFEAD. "G" is a well drilled by Atlantic. Atlantic drilled it to the carbonate section, which is a lime type and they ran casing on it and was unable to do any good, and it is presently — it was taken over and it is presently being deepened to the Morrow Section by the Bell Petroleum.

You will note that the main things to notice in this cross section is the tremendous thinning of the Wolfcamp in this area from the Atlantic well in "G" to the Southeast end of the cross section, "D", which is the Inman Well. There is approximately 11 miles, slightly over 11 miles distance in which the Wolfcamp section thins from slightly over two thousand feet thick in the Atlantic Well to the Northwest, to approximately five hundred fifty feet thick to the Southeast. So, within a 12 mile area, your Wolfcamp thins in the neighborhood of 1500 feet.

You will note that the top of the Cisco carbonate section is fairly flat up to the Trigg Well. Of course, Inman's Well dips off more to the southeast on the southeast flank of the structure; that is why we interpret the Inman Well being on



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the southeast structure, the southeast flank of the Indian Hills structure.

Actually, what we have interpreted here, and which will probably be determined fairly shortly, is that both of these fields, Indian Basin and Indian Hills, are one and the same, or are one and the same structure, and will probably be, at some tuture date will probably be one field instead of two.

We mentioned this tremendous thinning of the Wolfcamp because of the great concern that was encountered during this fire, and prior to, and even after the well was completed, the possibility of a thief zone being present. There are no wells in this area that are perforated and producing from either the Bone Springs or the Wolfcamp Sections. There have been tests as indicated on the Indian Hills Well, in the basal Bone Springs and in sections of the Wolfcamp, but none have been of any commercial value or considered to be of any commercial value. The Wolfcamp shales have been -- a lot of people have been concerned about them. If they get wet, they do slough on you if they get wet. Our contention is that there is no water in the hole to cause sloughing in these shales. And from testing recently, three days of fairly extensive testing, we had no show of water whatsoever in the well, nor did we have any shows of particles being blown out of the hole, so to speak, and these tests were conducted on real small chokes and should, if any



amount of particles would have been blown out of the hole, I am sure the shokes would have been somewhat plugged.

The Bone Springs section is predominantly, 80 percent of it -- in fact, the whole well, from below where our production string is landed, there on down, completely down to the top of the wolfcamp, is completely tight limestone with the exception, of course, of the basal sand member. That sand is a silty type dirty sand, showing no porosity to speak of. I believe that pretty well covers the cross section.

- Q Now, in connection with this Bone Springs, is that the interval that lies between the base and the bottom and the top of the Wolfcamp. What lies above the Wolfcamp?
 - A The Bone Springs.
- Q And does that extend clear up to the point where you are cementing in the packer shed?
 - A Yes.
- Q And below that is the Wolfcamp, down to the top of the Cisco; is that correct?
 - A Yes, sir.
- Q And is it your opinion that all of your production is actually coming from the Cisco?
 - A Yes, sir.
 - Q What is the nature of the Fish that is in this well?
 - A The nature of the Fish is approximately 700 feet of



drill collars, the drill collars being six and a quarter inch, and with a 7-7/8ths inch bit on the bottom and some, I believe, that was 4-1/2 inch drill pipe, a few stands of drill pipe right at the top of the Fish. Most of the Fish is composed of the drill collars.

Q Is it open throughout the length, in your opinion?

A Well, in my opinion it is open. When the well blew out we were almost out of the hole; almost up to the drill collars, and the drill pipe was hung in the slips with the force. That was indicated by, after looking at the blowout preventer, how it come out resembled -- as if someone had taken a blow torch to it. You can visualize the same thing happening to the plugged bit part. The bit was plugged circulating down through the drill pipe, and the pressure of the gas coming back up, or having a reverse circulating effect. I think definitely, unplugged the bit and that it is presently unplugged.

- Q And in that event, then, any gas production coming from the Cisco would probably be coming through the drill collars and drill pipe; is that correct?
 - I would think so.
- Q In your opinion, does this establish definitely the depth at which this well has been completed?
 - A What was that?
 - O The Exhibit establishes the depth of the well as to the



A Yes, sir. You can see I have broken down, in the Wolfcamp section, I have broken down the lime section, the shale and the predominantly lime section in the middle of the Wolfcamp.

As you can see, right at the top of the Wolfcamp in every well on the cross section, just below that is a thick shale section, predominantly shale. There might be a few streaks of lime, predominantly lime, and it shows up more than the shale on the electric logs. The middle portion of the Wolfcamp is predominantly lime with a shale stringer, particularly up on the northwest side. On the electric log, they had a tremendous lime section, over 500 feet of solid lime, but up on the flank side, on the southeast side, this lime section is considerably thinner and the lower part of the Wolfcamp is predominantly a shale, again with a few streaks of lime and an occasional streak of sand.

I think by this cross section, you can see, through that you can fairly well get your stratographic markers to stay along with your Glorieta top, sample tops above, and your San Andres tops and you can -- we are definitely convinced by these correlations we are in the Cisco Canyon or the Upper Pennsylvanian Field pay. This opinion is certainly substantiated by the shutin pressures and so forth in our well, which are similar to the wells in both the Indian Hills and Indian Basin Fields.

Q That would be the subject of another Exhibit by another



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witness; would it not?

- A Yes, sir.
- Q As I understand your testimony, there is no production in this vicinity from either the Wolfcamp or Bone Springs?
- A Yes, sir, that's right. None of the wells, to my knowledge, that is, are perforated in either the Wolfcamp or -perforated and producing in either the Wolfcamp or Bone Springs.
- Q In your opinion, was the Wolfcamp or the Bone Springs contributing anything to the gas in this well?
 - A No, sir.
- Q And do you have anything that would indicate the existence of a theif zone in the Wolfcamp or the Bone Springs?
- A No, sir, the regular tests set up on the well have indicated no such existence of a "thief zone".
- Q Now, turning your attention to Exhibit Number Four, would you identify that Exhibit, please, and discuss the information shown on it?
- A Exhibit Number Four is a well completion report of the subject well, the Robert G. Hanagan Number 1-D Tepee State. It gives the location and so forth, which I would certainly suggest that everyone read. It gives all of the general completion information of the well as we have it. As you can see, it was spudded December 6th, 1963, and completed January 23rd of 1964, at a total depth of 7366 and elevation 3838 G.L.; 3849 KB. The



result was a shut-in gas-condensate well.

The initial potential, which was taken on a P tube, flowed 28.5 million cubic feet of gas per day, plus an unestimated amount of condensate on a l-inch choke. Flowing tubing pressure was 1200; shut-in pressure, 2510. We have no electric logs. We do have a sample log available from 200 feet to 7,350 feet, with the bottom 16 feet of samples being absent. Of course, we lost circulation at 7366, and that is the reason we didn't have samples right off the bottom. The pay zone was picked, as I mentioned previously, by samples of other logs in the area, drilling time, and by the way the formation drilled when we entered it; and also by the lost circulation itself which is quite common in the area, particularly in a good dolomite well.

The wells that have highly fractured dolomite encountered considerable trouble throughout this carbonate section, the Indian Hills oil well, the Trigg I.B. Well, and the Enfield Well on the west side all had very serious lost circulation trouble.

The casing record is set out, note that all three strings of casing were circulated. The cement was circulated to the surface on all three strings. The perforations, as previously stated, is open hole. The treatment was natural. We did not even kill the well to run the production string in. The well was never killed in any manner whatsoever. No drillstem tests, no



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These dead weight pressure tests listed at the bottom of the Exhibit, page one, were taken on the following dates as recommended by the Commission. The general discussion, I don't believe I will comment on it, I just suggest you read it and perhaps you may have some questions as you read that section.

- Q. Did the dead weight pressure tests indicate there was the existence of the thief zone in the open hole? Do the dead weight pressure tests indicate any theif zone existence here?
- A No, sir, these are comparable to other wells in the field, in both fields.
- Q And are they comparable to wells completed in the Upper Pennsylvanian Pool?
 - A Yes, sir.
- Q Considering the structural position, do they correlate with other pressures in the area?
 - A Yes, sir.
- Q Were Exhibits One through Four prepared by you or under your supervision?
 - A Yes sir.

MR. KELLAHIN: At this time, I would like to offer in evidence Exhibits One through Four.

MR. UTZ: Without objection, Exhibits One through Four will be entered into the record.



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(Whereupon, Applicant's Exhibits Numbers One through Four were entered in evidence.)

MR. KELLAHIN: That is all I have on Direct Examination.

MR. UTZ: Are there questions?

MR. MORRIS: Yes, sir, I have a few questions. It would simplify my questioning if Counsel --

MR. UTZ: Does the reporter have your name?

MR. MORRIS: I have it on the appearance. It would simplify my questioning if I could know if there are going to be other witnesses in the case to testify.

MR. KELLAHIN: There will be another witness who will testify as to production flow tests and other matters pertaining to the completion of the well, and the cost.

MR. MORRIS: Thank you.

CROSS EXAMINATION

BY MR. MORRIS:

- O Mr. Hanagan I believe you said that the total depth of the well is 7366?
 - A Yes, sir.
- Q Just how much control do you have that lets you know that is the exact total depth of the well?
- A By the amount of drill pipe that was in the hole, drilling contractor measurements.
 - Q How much evidence or control do you have that shows



were 11 feet into the Cisco Pay?

- How much evidence?

Mainly as I said, by correlating the upper bed above the Pay, and the way it drilled, basically on the drilling time. Immediately above the dolomite or lime pay, whichever one is present, the lime or the dolomite, there is a shale section; and normally, in this case we were drilling with what we call a noble bit, which drills very slow in shale and you get a definite drilling break when you change formations from a shale to a lime or dolomite; and in this case, we did. It broke in half and then on down it just kept breaking and drilling faster each foot, and also, in a way it is kind of like we used to pick the formations out of the top of the Ellenburger, when the rotary table starts bouncing and jumping, you know you are in it, and about that time you lose your mud; the lost circulation zone is a very good indicator. There has been no lost circulation zone in this area, to my knowledge, above this Pay zone, except perhaps in the surface, near the surface of the water section.

- Q Is the ll-foot figure an estimate?
- Yes, sir.
- Merely?
- Yes, sir.
- You lost all of your samples at the bottom of 16 feet?



A Yes, sir, by the time you log them. The bottom 6 feet were definitely lost, but by the time you log your samples, which at that depth would be roughly a minute per hundred feet, why, the other ten feet would not have reached surface yet.

- O Except for the circulation matters that you have referred to, is there any postive evidence you were entering the Cisco?
- A Yes, sir. Pressure tests is one of the main proofs, plus the -- as I state again, the correlation by samples.
 - Q This is a correlation over a three-mile area?
- A Yes, I think that's correct, yes. Roughly three miles, yes.
- Q Mr. Hanagan, you have given us a description of the Fish that is in the hole. That Fish is just going to stay there? In view of the packer and the cement above the packer, there is no chance now of ever getting that Fish out?
 - A No, sir.
- Q There is no chance of working this well over any time in the future, is there?
 - A Well, I would rather you asked Mr. Brunson on that.
 - Q It was not possible to log this well?
 - A No, sir, it was not logged.
 - Q Not possible to take drillstem tests on that well?
 - A No, sir. We had a natural drillstem test.
 - Q I believe you mentioned at some point in your testimony there



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was a shale section in here you had been watching pretty closely for evidence of sloughing?

A Yes, sir. In fact, this area you have to mud-up at the top of the Wolfcamp if you are drilling with water or mud. If you don't, it will slough on you.

O Now, what is that interval we are talking about?

A On the cross section well "A" at the top of the oil column, it was at 5670 and we mudded up at 5670, expecting the top of the Wolfcamp shortly, so we mudded at 5670, and we called the top 5670. You definitely get in trouble if you do not mudup in the Wolfcamp.

Q Through what interval does this shale exist?

A It will exist down from the top of the Wolfcamp to the top of your Pay, roughly; in this particular well, 650 feet.

Q Should it ever be necessary to kill this well with water, Mr. Hannagan, what would be the result?

A I would rather you ask Mr. Brunson that question. I am not an engineer.

Q From a geological standpoint, you can expect some pretty heavy sloughing in that shale?

A If you have got water, you say?

Q Yes, if you had to kill the well with water.

A I am not qualified to answer that question.

Q All right. What was your original objective in this well,

Mr. Hanagan?



A The original objective was the Morrow, 9550 feet, contract depth.

Q Why was the Morrow a primary objective, rather than the Cisco?

A Well, there are two pays in the area, the Morrow Pay and the Cisco Pay. The idea, of course, was to test both pays.

Q You say there are other wells in the area that completed in this Morrow Pay?

- A Yes, sir.
- Q And would you --

A Not in the Indian Basin, -Upper Pennsylvanian, not in the Indian Hills Field.

Q At the present time, the Morrow formation in this area, in this immediate area, remains untested?

- A In the Section.
- O The subject Section, you mean?
- A Yes, sir.
- Q And in the Indian Hills Pool?

A Yes, sir. Recently, the Trigg well, which was drilled in Section 6, the I. B. Well was drilled to the Morrow and it was dry, which certainly didn't enhance the possibility of Morrow production.

- Q It doesn't condemn it in this?
- A No, sir, it does not condemn it.



- Q On your cross section, Mr. Hannagan, this well labeled number "C" on the left hand cross section --
 - A Yes, sir.
- 0 -- shows that performations, present perforations are 26 feet in the Cisco?
- A Yes, sir, the base of the present performations is 26 feet from the top of the pay.
 - Q Now, had this well previously been logged, perforated?
 - A Yes, sir, perforated several zones below.
- Q Do you happen to know the original perforations in this well?
 - A I have a card with me that would show it; yes, sir.
- Q There were several perforations, though, below this 26 feet?
 - A Yes, sir.
 - Q Do you know why the well was reperforated?
- A Well, of course, they were production testing it to attempt to find out where the water was, then, where the water table is. Perforations down to a minus -- I could get the log, like I say, it is in the briefcase -- down to approximately a minus 37 feet, showed water-free on those tests.
 - Q That is down to a minus 37 feet, it would be?
 - A Approximately.
 - Q Approximately down to the bottom, it would be below



A Yes, sir. Each one of those is 20 feet on the vertical, where the bridge plug is shown? each square is 20 feet; it would be considerably below that. We feel that using 3750 or 3800 is what we are using, a minus 3800 is what we are using as the water table in that field. In both fields it is extremely difficult to determine and really hasn't been to my knowledge by any operator, as to the definite water table; but down to a minus 3750 has been oh, fairly consistently water-free, and actually down to a minus 3800, is what we are using as our water-gas contact, a minus 3800, which would make our well, the top of our carbonate section, approximately 296 feet above that water table; and we feel that somewhere at least 250 to 300 feet above the water table, the top of the water section. We want to point out that because we feel that we are considerably above the water table.

Q At the same time, you certainly have not penetrated maybe some 200 feet of productive interval there?

Q One Point in your testimony, Mr. Hanagan, you mentioned that Robert G. Hanagan holds the subject acreage on a farm-out from A That's right. Marathon Oil Company?

 $_{\mathbb{Q}}$ Under the terms of that farm-out agreement, is Robert G. Hanagan to earn an interest in this well after payout, and part of

it would revert to Marathon?

A Yes, sir, that's right. Marathon would have an override until payout and come back in for a working interest.

Q To what extent would the working interest be in Marathon?

MR. KELLAHIN: We submit the question has no bearing on the application, and we have stated we own the working interest to this point, and that is what we are talking about.

MR. MORRIS: Insofar as the question might be relevant to costs and whether it is subsequently developed that costs are reasonable or unreasonable, I think it's pertinent to have before the Examiner and before the Commission the full details of the economi¢ interest of all persons in this farm-out, we submit the question is pertinent.

MR. UTZ: Now as well as the future?

MR. KELLAHIN: Mr. Brunson will testify as to what costs Marathon agreed to. Insofar as it pertains to the cost of the well, that is all we are concerned about here.

MR. MORRIS: I will defer my question.

- (By Mr. Morris) Mr. Hanagan, you mentioned that 9550 was the contract depth?
 - Yes, sir.
- You say contract depth, was that contract with Marathon or was that contract with your drilling contractor, or who?
 - A With the drilling contractor, yes, and Marathon.



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Q And Marathon?

A Yes, although I think Marathon's was stated a little differently, the top of the Barnet Shale or something on that order. At any rate, a depth sufficient to test the oil pressure.

Q Do you have the contract with your drilling contractor here?

- A Yes, sir.
- Q Was that a turnkey contract?
- A Yes, sir.
- To a depth of 9550?
- A Yes, sir.

Q And what condition was the well to be turned over to you at that depth, what is the drilling contractor's obligation?

A He was to furnish all equipment and everything necessary to get it down to that depth, including the mud and casing, not the production string, the surface and intermediate casing, mud, bits, water, fuel.

- Q By the terms of that contract, did he assume all liabilities of extra costs?
 - A Well, that is the understanding, yes, turnkey.
 - Q It was the usual turnkey contract?
 - A Yes, sir.
- Q And what was your obligation to the contractor that had that contract, Mr. Hanagan?



A What was our obligation?

Yes, sir.

A We would furnish the locations, roads, legal fees, the production casing, and of course, all expenses incurred on the completion part of it.

Q And what was the consideration, how much were you supposed to pay him for turnkey price?

A What was the exact figure?

MR. KELLAHIN: That will be offered in detail by a later witness.

MR. MORRIS: Fine. May I have one moment, please? I have no further questions of this witness.

MR. UTZ: Are there any other questions?

MR. NUTTER: I have a few questions.

BY MR. NUTTER:

Q Mr. Hanagan, has the Trigg well been potentialed?

A It has, although I do not have the potential. Well, let's see. -- This, I don't know, it has been fairly recent. Sinclair is presently conducting plant feasibility on all tests in the area, at the present time; and it was my understanding, just a few days ago, they were on the Trigg well, the I. B. Well, so I would say there may not be an official completion of it.

Q Does it go to the Morrow?

A Yes, sir, they went to the Cisco and ran casing through



the Cisco, the carbonate section, and then the second week or so later decided to go on to the Morrow.

- Ω Is it completed in the Morrow?
- A No, sir, it was dry in the Morrow.
- Q From the indications that you have had to date on the Cap and in the Cisco, does it appear that they have got a gas well there?
- A A very good one, possibly one of the better wells of the field.
- Q Now, the Ralph Lowe well to the northeast went on down to what depth?

A The northeast, the Indian Hills well, the discovery well of the Indian Hills, it went to the Devonian, 10,200 some odd feet. It has a fairly good show in the Morrow Section, and one sand of the Morrow which would possibly be of commercial value, but they do not have it perforated. They plugged back and completed in the Cisco Pay.

Q And there were numerous drillstem tests and also perforations made on that well which are not in a completion as it is today; is that right?

A There were no perforations in the Morrow Section, just drillstem tests.

Q Other tests in the lower part of the Pennsylvanian were made, weren't they?



made, weren't they?

- A Yes, sir.
- Q And all of those perforations were either bridged off or squeezed?
- A Yes, sir, there is a bridge plug shown on my cross section: that is the exact minus data --
 - Q It is not given, but I presume it's
- A Well, let's see, it would be approximately 35, 36, 37, 3712, let's see, the scale off to the right, approximately just slightly under 3700.
 - O And the perforations are at what depth there?
- A The perforations are at -- let's see, the top of the pay that's minus 3624, and the base of the perforation is 26 feet below that, so it would be a minus of 3650.
 - O And then another 62 feet below that is the bridge plug?
 - A Yes, sir.

MR. NUTTER: I believe that's all.

MR. UTZ: Are there any other questions? The witness may be excused.

(WITNESS EXCUSED.)

MR. UTZ: Do you have another witness? Do you think you want to continue until 12:00 o'clock?

MR. KELLAHIN: Yes. We will call Nolan Brunson.

NOLAN BRUNSON called as a witness herein, having been

first duly sworn on oath, was examined and testified as follows:



DIRECT EXAMINATION

BY MR. KELLAHIN:

- o Would you state your name, please?
- A Nolan Brunson.
- Q Mr. Brunson, do you have any connection with Mr. Robert G. Hanagan?
 - A Yes, sir.
- Q What is your connection with Robert G. Hanagan insofar as it relates to the Number One Tepes Well?
- A Robert G. Hanagan and Hugh Hanagan and I own the majority of the working interest in this well.
 - Q And you are an interest owner in the well?
 - A Yes, sir.
- Q Did you have anything to do with the well at the time of its completion?
- A Yes, sir, I was there from the time that Mr. Adda put the fire out until we said the final amends and left it.
 - Q Did you supervise the completion yourself?
 - A Yes, sir.
 - Q You handled that yourself?
 - A Yes, sir.
- Q Now, what experience have you had in oil well completions, Mr. Hanagan?
 - A Well, I have been an interested operator in Hobbs for



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the last eight years.

- Q Have you drilled any wells of your own?
- A Yes, sir.
- Q Have you supervised drilling of those wells?
- Yes, sir.
- Have you produced the wells?
- Yes, sir.
- Q Are you familiar with the production practices and completion practices in the Lea County and Eddy County areas?
 - A Yes, sir.
 - Q You are not a petroleum engineer as such, are you?
 - A No, sir, I am not a graduate.
 - How many years of experience have you had in this field?
 - A Well, as I say, eight.
 - Eight years. And has this all been on your own account?
 - A Yes, sir.
 - Q Either singly or in association with others?
 - A Yes, sir. Never as an employee of an oil company.
- MR. KELLAHIN: Are the witnesses' qualifications acceptable?

MR. UTZ: Yes, sir.

- (By Mr. Kellahin) Now, referring you to what has been marked as Exhibit Number Five, would you identify that Exhibit?
 - A Yes, sir. Exhibit Number Five is the test results, even



though we haven't received the formal report from Ralph Lowe and Sinclair as to the results of their test some ten days ago, but these are taken from my field notes, and were prepared by Sinclair and Ralph Lowe's employees.

The first test period was for a full 24 hours. tubing working pressure was 2332 pounds and the volume produced in the first 24 hours was 5194 MCF. We couldn't get it drawndown. This well we were attempting to get a four-point test, and we couldn't get a draw-down, so we thought we would flow it at a greater rate for shorter periods of time.

The next five tests there indicate the rate, the 24-hour rate and the tubing working pressures. You will note that when we increased the flow rate to 8.427 million, we had a working pressure drop of some sixty pounds. The next three hours we reduced the rate to a little over seven million and had an increase in tubing pressure. The same was true in the fourth and fifth. Well, excuse me. The same thing was true in the fourth; and then in the fifth and sixth at the rates there, you will note that the flowing tubing pressure was greater than the shut-in. The pressure chart that was on the well, and it was calibrated in and constantly checked in Sinclair's personnel's dead weight pressure test; but the chart was a straight line during the entire test, there was no heading; it looked like it was drawn, it was amazing.

MR. UTZ: What lengths of time?



A During the first test period for 24 hours, the pressure chart, the pin stayed in the same spot all of the time. Then as I said, before the test period we had the shut-in dead weight at 2350, which is like it has been on the other Exhibits Mr. Hanagan presented to you. We had no indication of water through test separators. That is how we established our GOR of 19,000 to 1. The gravity of the distillate is 51.2 at 60 degrees fahrenheit. The gas, I don't have a complete analysis, we just took the HoS contact of 150 grains, four-tenths of one percent inert gas, and all of these tests are comparable to the tests that Ralph Lowe and Sinclair had conducted on other wells before they got to ours. I can't recall exactly, I think they had tested two others, perhaps three, but I know they had tested the Enfield Well and the Ralph Lowe Indian Hills well prior to testing this one.

Q As I understand, these tests were made by Sinclair and Ralph Lowe?

- A Yes, sir.
- Were you present when they were made?
- Not during the entire time.
- But you made these field notes, yourself?
- Yes, sir.
- Some were made at the time the tests were taken; is that correct?
 - A Yes, sir.



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- Q Does this indicate to you that this well is completed in the Upper Pennsylvanian Pool?
 - A I think this is conclusive.
 - Why do you say this?
 - It looks just like the tests on other wells.
- Are the pressures approximately the same as the other wells?
 - Flowing pressure is the same and shut-in pressure the same.
 - And do the volumes --
 - They compare with the other wells of the area.
- And has gas production in this volume been obtained from any well in this area, from any other formations above the Cisco?
 - No, sir.
- In other words, you would not expect to encounter this volume of gas anywhere except from the Cisco; is that right?
 - A Yes, sir. That's right.
- Q Now, turning your attention to what has been marked as Exhibit Number Six, would you identify that Exhibit, please?
 - A Yes, sir.
 - MR. KELLAHIN: Do you want to take a recess, now, Mr. Utz?
 - MR. UTZ: If we are at a convenient stopping place.
 - MR. KELLAHIN: We are, and I would rather not bring it up.
 - MR. UTZ: We will recess until 1:30.



(Whereupon, the Hearing was recessed until 1:30 o'clock P.M.)

AFTERNOON SESSION

MR. UTZ: The Hearing will come to order, please. We will continue with Case 3032, and I believe you just finished Exhibit Number Five and prepared to start on Six.

DIRECT EXAMINATION (CONTINUED)

BY MR. KELLAHIN:

- Q Before we get to the next Exhibit, Mr. Brunson, as I understand, you were present at the completion of this well?
 - A Yes, sir.
 - Q In its present form?
 - A Yes, sir.
 - Q How do you know at what depth this well was completed?
- A Well, primarily, the drilling contractors' measurements, we also know the length of the Fish and how much tubing we put in the hole, and when we touched the Fish, why, by adding the two together.
- O That would give you an accurate measurement of the depth; would it not?
 - A Yes.
- Q Now in connection with the operations of this well, are there other wells, of course, no wells are completed just exactly as this one -- but are there wells completed as open hole, as a



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- A In the industry, yes.
- Q Does that interfere with the operation of the well?
- A Not that I know of,
- Q Now, assuming that you had to do some work on this well, in your opinion, could it be done?
- A There could be some limited work done on it. By work, you could swab the well if you had a fluid build-up. You could swab it to the depth of the tubing. You could not do remedial work on the --
 - Q At the total depth?
 - A -- At the total depth; no, sir.
- Q But if you did have a fluid problem develop, in your opinion, by operating through the tubing, could you take care of the situation?
 - A To a certain extent; yes, sir.
- And as of the present time, you don't anticipate a fluid problem, do you?
- A No, sir, there was nothing other than light gravity distillate that was produced in this case.
 - Q And no water whatever?
- A None that I was aware of, there was none in the tank we saw. I might add here that this test, the result of this test was -- the points were so close together we couldn't get an accurate



four-point test. But the best we could do was an average overflow of something in excess of two hundred million.

- o That would by your calculated overflow?
- A Yes, sir.
- Would you consider that a good well?
- Yes, sir, I would
- Are there other wells in the area producing through the tubing?
 - A You mean as a tubingless completion?
 - yes, sir.
 - In the Indian Hills or Indian Basin; no, sir.
 - But it is not an unusual type of completion?
 - No, şir.
 - Now, what has been marked as Exhibit Number Six, Mr. Brunson, if you would, identify that Exhibit and discuss it. Before you start your discussion, I would like to ask you if Shell Oil Company was offered an opportunity to join with you in this well?

A Yes, sir, prior to starting the well, we offered Shell to join us, or to farm-out on the same basis that we were required to farm-out to Marathon, and they declined and then we have subsequently offered the same proposition.

Q What seemed to be the difference of opinion between you and Shell?



A Well, of course, Shell, as I understand what they -- they didn't want to farm-out a property that still had some -- I don't know. Q Subsequent to the completion of this well, had you had

- Q Subsequent to the completion of this well, had you had any discussions about pooling this property?
- A Right. The point of contention between us has been the cost.
- Q And have you made a study of the cost figures in the Indian Basin and Indian Hills Pools?
 - A Yes, sir.
- Q And referring to Exhibit Number Six; is that the result of the study.
 - A Yes, sir.
 - Q And would you give us your discussion of this Exhibit?
- A These figures with the asterisks, these have been submitted. We have drilled, of course, the Number One Tepes State and have participated as working interest partners in the drilling of two other wells, and will participate in a fourth well by the end of this summer. As I say, these with asterisks, are based on AFE's that we have received from these operators or that we have had furnished to us.
 - Q What are the other figures?
- A The other figures are what the operator has actually told us their costs were, where available. In a case where they were



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not available from the operator, these other costs are costs that the operators have furnished us, not our estimates.

O But where "N.A." appears under "Contractor's for Footage Bid", the total cost is still shown?

A Yes, the total cost is still shown, but the actual footage bid of the contractor was not available.

- Q But it would be included in the total cost?
- Yes, sir.
- And so the total figure is the total cost?
- Yes, sir.
- And the total depth is what they drilled the well and mud bills and so forth?
 - A Those are in there, as they were presented to us.
- Q Now, on the basis of your information, the average cost per foot was \$24.10; is that correct?

A That was the average cost of the five wells that were singly completed, that we did have total cost on. Now, there are six wells listed there as single completions, but on the John Trigg "CJ", the total cost was not available. We were able to get the contractor's footage bid, and the mud cost. But the total cost, they just hadn't -- just had not completed long enough.

- Q That was the well that was just recently completed?
- A Yes.
- Q Well, now, on that basis, then, was the cost of the



Hanagan Number I-D Tepee Well, in your opinion, excessive?

A No, sir. Well, as these figures indicate, the average of the five wells including the Tepee State was \$24.10 per foot. The other wells range from a low of Enfield of \$19.33 per foot to, let's see, we had one there --

- O Do you have the cost per foot on each of those five wells?
- A Yes, sir.
- Q Why don't you give them?
- A All right. The cost per foot of the John Trigg I.B. single completion was \$23.74; the Ralph Lowe No. 1 Indian Hills, \$33.68; The Ralph Lowe No. 1-C Indian Basin, \$22.24; R.N. Enfield, \$19.33; and R. G. Hanagan 1-D, \$21.53.
- Q Now, in connection with those, the Ralph Lowe No. 1 Indian Hills was the discovery well, was it not?
 - A Yes, sir.
- Q And that would normally cost somewhat more than the subsequent well?
 - A Yes, sir.
- Q And your Enfield well was not completed as a producer, was it?
 - A Yes, sir, it was.
 - Q Oh, it was. So, it is the lowest cost well?
 - A Yes, sir.
 - Q But, the average would run somewhere around --



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Q -- \$24.10. And the cost of the Hanagan well was somewhat below the \$24.10?

A Yes, sir, \$21.53.

Q Now, have you compiled the costs on the Hanagan well in some detail?

A Yes, sir, sure have.

Q Referring to Exhibit Number Seven; is that the result of your compilation?

A Yes, sir.

Q Would you discuss the information shown there on Exhibit Number Seven?

A Exhibit Number seven is the exact cost of the Robert G.
Hanagan No. 1 Tepee State Well, as it is now completed. It includes
costs through February. Some of these costs will be a matter of
interpretation by the Accounting Department as to whether they were
completion or operating costs, but this is the total money we have
spent on the property through February, 1964.

Q And you consider those costs to be reasonable costs?

A Yes, sir.

Q In addition to that, Mr. Brunson, do you feel that you are entitled to anything for a risk factor?

A Yes, sir, I certainly do. If I have got to come up with a number, I would say it is two hundred percent.



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O From your own experience, are there risks to be encountered in drilling wells in this area?

A Yes, sir, the risk, the lost circulation zone is a tremendous risk. We have, here, referring back to Exhibit Six, mud bills that have run from five thousand dollars in wells that had very dense lime, rather than a dolomite, in the Cisco Canyon or Upper Pennsylvanian, to a high of Marathon No. 1 Indian Basin unit of \$47,420.00. So, that is a risk, that you don't know what your mud bills are going to be, plus the fact that you have this excellent gas reservoir that can do what we have experienced.

- Q Now, has any company examined your figures on these well costs other than your own?
 - A Oh, yes, Marathon has.
- Q Now, as I understand, you have a farm-out contract with Marathon?
 - A Yes, sir.
- Q Under the terms of that contract, does a working interest revert to Marathon after pay-out on this well?
 - A After we have recovered our cost.
 - And they accepted your cost?
 - Yes, sir.
 - What figure?
- A They accepted \$160,000.00 as a reasonable cost. Our cost here indicates \$158,627.46, but Marathon has accepted \$160,000.00

as the cost. Their override will revert to working interest when



we have recovered the \$160,000.00 in production.

- Q You are familiar with the statute which permits recovery of a risk factor under some circumstances within the discretion of the Commission, are you not?
 - A Yes, sir.
 - Q You know that is limited to 50 percent?
 - A Yes, sir.
- Q What risk factor do you ask the Commission to grant in this case?
 - A Fifty percent.
 - Q And do you base your well cost on the \$158,627.46?
 - A Yes, sir.
 - Q And that is your total figure?
 - A Yes, sir.
- Q Were Exhibits Five, Six and Seven prepared by you or under your supervision?
 - A Yes, sir.

MR. KELLAHIN:

At this time, I would like to offer Exhibits Five, Six and Seven.

MR. UTZ: Without objection, Exhibits' Five, Six, and Seven will be entered in the record in this case.

(Whereupon, Applicant's Exhibits Nos. 5, 6 & 7 received in evidence.)



MR. KELLAHIN: That's all I have on the Direct Examination

CROSS EXAMINATION

BY MR. UTZ:

- Q Mr. Brunson, this was the well that you had the fire on; was it not?
 - A Yes, sir.
- Q The cost was established of that fire in your Exhibit Number Seven?
 - A No, sir, the cost was borne by the contractor.
 - Q Is that included then in the \$129,000.00?
 - A Yes, sir, that is the total price we paid the contractor.
 - Q Is that higher than his initial contract price?
 - A No, sir, that is his initial contract price.
- Q So that the contractor actually stood the loss of putting out the fire?
 - A Yes, sir.
 - MR. UTZ: Are there any other questions?
- MR. KELLAHIN: I would like to ask one question for clarification.

REDIRECT EXAMINATION

BY MR. KELLAHIN:

- Q You say that was the contractor price, but was that to the Cisco formation?
 - A No, that was contract price to 9550.



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But he didn't drill to 9550?

No, sir.

This was in the nature of a compromise?

A Yes. Well, it was impractical. We had been advised by Mr. Red Adair, that was his expert opinion, that it would be impractical to attempt to kill this well, is the reason we completed it in the manner we did. -- We swabbed it in under tubing, we never did attempt to kill this well. It was his opinion, after considerable discussion, he said it would be -- he and LeRoy Mud Company said there would be needed at least \$100,000.00 worth of mud, probably, to kill or well and than Mr. Adair felt if we went back in here fishing in this lost circulation, he would be out there fighting fire again.

MR. KELLAHIN: I just wanted to clarify what the contract was for. It was to the Cisco.

MR. UTZ: Are there any other questions?

MR. MORRIS: Yes.

MR. UTZ: Mr. Morris.

RECROSS EXAMINATION

BY MR. MORRIS:

Q Mr. Brunson, I would like to talk a little bit more about this contract with Marlo Drilling Company.

A Yes, sir.

Q Is that your drilling contractor?



- A Right.
- Q What was the date of this contract?
- A December, early December, 2nd or 3rd, of 1963, of course.
- Q And was this contract what you would refer to or, as I understand, to be a turnkey contract; is that the term that is used in the industry?
 - A Yes, sir.
- Q What was Marlo Drilling Company supposed to do for you and the Hanagans pursuant to the terms of this contract?

A To drill the well to the total depth of 9550, and furnish the incidentals for everything except roads and locations and the production string. They did furnish the surface and the intermediate strings.

- Q Now, they didn't drill the well to 9550, did they?
- A No, sir.
- Q Pursuant to the terms of the contract, Mr. Brunson, did you have any obligation to pay, any legal obligation to pay Marlo Drilling Company for anything else than full or substantially full performance under that contract?

MR. KELLAHIN: I object to the question. It calls for a legal conclusion.

MR. UTZ: Do you want to argue?

MR. MORRIS: I can rephrase the question if I may, to ask if there is any term in the contract providing the contingencies



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upon which payment was to be made to the contractor, with regard to substantiating their full performance.

MR. KELLAHIN; I submit this has nothing to do with the case. It is immaterial and irrelevant in that we are not here asking Shell to pay the contractor any part of the costs that were paid in connection with drilling this well. We submit we had a well drilled through the Cisco at a reasonable price, at least for which we want them to pay their fair share, and whether least for which we want them to pay their fair share, and whether he performed or didn't perform is wholly immaterial to this proceeding.

the most important point in this case, insofar as the dispute as to cost is concerned. Certainly the figure here of \$130,000.00, approximately, is the most substantial item here, well cost.

In a forced pooling application such as this, Shell Oil Company in effect becomes an involuntary partner with the other working interests in the Unit, and we are entitled to explore all of the aspects of the economics of this situation. I might say, at aspects of the economics of this situation. I might say, at figure for drilling a well to the Morrowto a depth of 9550 feet; figure for drilling a well to the Morrowto a depth of 9550 feet; we submit it is an unreasonable figure for a well to the Cisco, and it is unreasonable for the Applicants here today to saddle Shell with a contract price where full performance under that contract price was not delivered. We have a well here substantially inferior



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to that which was contracted for this price, and we submit that not only is the contract price and the terms of the contract quite relevant to this proceeding, but that we should get the contract out here on the table and look at it to see just what the obligations of the drilling contractor were, what the obligations of the Hanagans were under this contract, to see if it's reasonable to saddle Shell with paying a percentage of the full price when full performance was not delivered.

MR. KELLAHIN: Well, we have no objection to getting the contract out on the table, providing it is the contract amended as a result of this fire and other factors that entered into it.

Certainly Hanayan was in no position to point to the contractor and say, "All right, you go bankrupt, but we will take the well", and they didn't do this; and Shell has no right to ask us to do this at this point, and they have no right to ask for that kind of performance, either. We have endeavored to show the total cost of the well which was a \$158,000.00 plus figure, and compared it to the cost of the wells through this area, and certainly on that basis it was a reasonable price for a well drilled to the Cisco Canyon, and whether we contracted with the contractor to go to the Devonian, Ellenburger, or any other formation has nothing to do with it.

MR. MORRIS: All we can be obligated to pay, pursuant to the terms of the contract, are actual expenses not in excess



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of what is reasonable. It is our position here that the Hanagans had no obligation to pay this \$130,000.00 because full performance was not rendered pursuant to the terms of the contract. Whether they particularly like it or not, we are involuntary partners with them in paying our proportionate share of the price of the drilling of the well. Whether they like it or whether we like it, we are in the same boat together here. Now, if they pay the drilling contractor \$130,000.00 when they had no legal obligation to do it, and should have, upon the happening of these contingencies, negotiated a reduced price, we shouldn't be saddled with that extra cost.

MR. KELLAHIN: You are arguing here about a legal obligation ligation, and certainly Counsel knows there was a legal obligation to pay for the performance; it was done in the drilling of this well, and any Court of equity would enforce such an obligation.

The fact it was done by negotiation does not change the picture.

MR. MORRIS: This was the very point of the Exhibit here which I was trying to get at in my question to Mr. Brunson. Just what were the terms of the contract pertaining to payment and what conditions did it provide must be exercised before any obligation to pay on the part of the operator could have arisen? It's quite common in drilling contracts to provide for no payment except on full performance by the drilling contractor, and this is especially true in a turnkey contract. So, my questions are



quite relevant and pertinent, and in order to determine the reasonableness of cost in this proceeding, we need to take a look at the contract or know something about the contract terms in order to see whether there was a legal obligation to pay this full contract price.

A May I say --

MR. UTZ: In the form of an argument in regard to the question, I presume?

A Yes, sir.

MR. UTZ: All right, sir.

A As to legal obligation, I don't know how I can say whether there was a legal obligation or not.

MR. MORRIS: I didn't ask you, Mr. Brunson, in my rephrased question, whether you had a legal obligation. I am asking you to tell me what the provisions are of your contract concerning the eventuality in which you have to pay the contract price under the turnkey contract?

MR. KELLAHIN: I want a ruling on that to this line of questioning, on my objection.

MR. UTZ: Mr. Kellahin, do you have the amended contract with the contractor available, or would you be willing to put that in the record? If you have that contract, I expect the contract would speak for itself. Off the record, please.

(Whereupon, a discussion was held off the record.)



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MR. KELLAHIN: I would like to have this marked for identification as Exhibit Number 8.

(Whereupon, Applicant's Exhibit Eight and 8-A marked for identification.)

Q BY MR. MORRIS: Mr. Brunson, I hand you what has been marked as Exhibit Number Eight, and ask you to state what this is, please?

A It's a copy of a letter from the Marlo Drilling Company
to Hanagan and Hanagan regarding an Indian Basin Well, Eddy County,
New Mexico. Shall I read it?

Q Let me see. Since we only have the one copy available, would you read that into the record, please, sir?

A "Gentlemen: Marlo Drilling Company will drill your above captioned well to a total depth of 9,550 feet for a total sum of \$129,987.50.

Marlo Drilling Company will furnish the following;

- 1. 300 ft. of new 13 3/8" spiral well pipe.
- 2. 3,100 ft. of new 8 5/8" pipe
- Cement and cementing services to circulate the above strings.
- 4. All mud.
- 5. 3-Drill stem tests.
- 6. Logs to the amount of \$3,000.00.
- 7. All water and fuel.



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- 20" Conductor pipe. Operator to furnish the following:
- Location and roadways.
- 4-1/2" casing.
- Cement and cementing services of 4-1/2" casing.
- All third party charges after 9,550 feet depth is reached.

Day Work Rates to be: Depth, 0' to 9,550'; with drill pipe \$950.00; With drill pipe, \$850.00.

Page two of this letter is: "We wish to thank you for the opportunity of submitting this bid and we will do our upmost effort to do you a complete and satisfactory job.

If the foregoing is acceptable to you, please sign the enclosed copy of this letter and return to me for our records. Yours very truly, Marlo Drilling Company, signed D. N. Moody. Accepted: Hanagan and Hanagan, by Robert G. Hanagan, Date 12/3/63" This letter, excuse me, was dated November 18, 1963.

Q Now, without going into reading all of it, I hand you what has been marked Exhibit 8-A, and state what it is, please.

A It's a letter from Mr. Robert G. Hanagan to Mr. D. N. Moody, Marlo Drilling Company, wherein he enclosed the signed letter agreement that I just read, and amended it: This letter as being returned to you subject to the addition of the following which are to be furnished by the contractor: (1) Cement and



cementing services to circulate the 20 inch conductor pipe, and (2) You agree to land 4-1/2" casing. And it is agreed and accepted the 5th day of December, 1963, Marlo Drilling Company by D. N. Moody.

- Q Mr. Brunson, that first letter you just read, the obligation of Hanagan and Hanagan was to pay \$129,987.50 for the completed well; is that correct?
 - A Well, for a well drilled to 9,550 feet.
 - 9,550 feet?
 - A Not completed.
- Q Now, I hand you what has been marked as Exhibit 8-B in this case, and ask you to state what this is.
 - A It is headed "Supplemental Agreement".
 - O What is the date of that instrument?
- A I believe it is shown on the second page. 11th day of January, 1964.
- Q Now, is that a date after the blowout and fire occurred in this case?
 - A Yes, sir.
 - Q On this well?
 - A Right.
 - Q Would you read paragraph 2 of that instrument, please?
- A "Marlo will pay all costs in connection with the work which it is required to perform including, but not limited to, all



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expenses arising out of any blowouts and/or well fires. In this connection, it is specifically agreed and understood that all charges made by Red Adair will be the responsibility of Marlo."

That is the first paragraph. Do you want me to continue with paragraph two?

MR. KELLAHIN: Read the whole thing. If you are going to read part of it, just read the whole thing.

A "The Drilling contract dated November 18, 1963, between Marlo Drilling Company, herein called Marlo, and Hanagan & Hanagan herein called Hanagan, as amended by Letter Agreement dated December 3, 1963, between the same parties is hereby amended as follows:

1. Marlo will undertake and perform all services and work necessary to the point at which the cement slurey is capable of being pumped into the production casing which point shall be the greated practical depth which can be reached in the present hole without fishing out any drill collars and pipe in the hole, or at any lesser depth satisfactory to Hanagan. It is expressly understood and agreed, however, that Marlo will not be responsible for Hanagan's pipe which in the future may be lost in such hole. Marlo will not be required to drill to the depth specified in the above referred to contract dated November 18, 1963. At or after the point at which the cement slurey is capable of being pumped into the production casing and on request from Marlo, Hanagan will



give Marlo a written statement that all terms of the contract have been complied with and the contract price of \$129,987.50 will be paid within one hundred days.

2. Marlo will pay all costs in connection with the work which it is required to perform including, but not limited to, all expenses arising out of any blowouts and/or well fires. In this connection, it is specifically agreed and understood that all charges made by Red Adair will be the responsibility of Marlo.

It is expressly agreed and understood that acceptance of this responsibility by Marlo is made as a compromise agreement only and is not intended as an admission that Marlo is responsible for the expenses of blowout and oil well fires.

Neither party admits any liability to any governmental body or third party for loss of gas or gaseous substances.

- 3. The contract price which Hanagan heretofore agreed to pay will remain \$129,987.50, and no more, and it is specifically agreed that said contract price will be paid in full within one hundred days from the date cement slurey can be pumped into the production casing as provided in Paragraph 1 above.
- 4. Any expenses incurred by Hanagan in discharging the property from the liens which are the responsibility of Marlo shall be reimbursed by Marlo, or, at the option of Hanagan, shall be chargable against the contract price.
- 5. This contract is written as a compromise settlement of a dispute as to responsibility under that contract dated November 18,

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1963 as amended and it is not the intent hereby of any party to admit any liability of any kind of connection with the oil well fire which occurred on January 2, 1964. Further, notwithstanding anything contained herein to the contrary, it is specifically agreed and understood that should any additional accidental fires occur after the control equipment has been installed on the well site, neither party hereto contracts hereby to be responsible for same or to expend any monies in combatting such additional fires; provided; this provision shall not affect a determination whether or not the contract as amended is a turnkey contract.

This contract agreed upon and entered into this 11th day of January, 1964, by and between the parties hereto and shall be binding upon each of their heirs, representatives and assigns.

Marlo Drilling Company, by D. N. Moody, and B. W. Spencer, partners Hanagan & Hanagan, by Robert G. Hanagan and Hugh Hanagan".

- Q Is Shell Oil Company a party to that lease or that supplemental agreement or any of these agreements?
 - A No, sir.
- Q Mr. Brunson, has Marlo Drilling Company been paid \$129,987.50 pursuant to that contract?
 - A Yes, sir.
 - Q Is that a cash payment or --
 - A Check.
 - Q Did Marlo Drilling Company acquire any interest in this

well as a result of this operation?



- A No, sir.
- Q Has Mr. Red Adair been paid --
- A Yes, sir.
- Q--for his part in this?
- A Yes, sir.
- Q He has been paid by Marlo or has he been paid by Hanagan?
- A Marlo.
- Q So the effect of this Supplemental Agreement, made after the fire had already occurred, is that exactly the amount of money was paid for a well to 7366 as would have been paid for a 9,550 foot well under the original agreement; is that correct?
 - A Your question was what, again, please?
- Q You have paid exactly the same amount for the well in its present condition as you originally agreed to pay for a well to 9,550 feet; is that correct?
 - A Yes, sir.
- Q Was Sheel Oil Company consulted in any way or at any time concerning the compromise agreement that we have referred to here as 8-B?
- A They weren't a party, no, sir; they were not a party to any of these agreements.
- Q Had negotiations been pending prior to that time concerning the unitization, and have efforts been made by the Hanagans to bring Shell into the Unit?



A Yes, Shell had been asked to join and they declined, and we offered to farm out Shell's property under the same terms that we farmed out the property from Marthon and they declined that. This was prior to starting the well.

Q And you knew prior to starting the well, at all times, that if no agreement was reached, that Shell would have to be force-pooled, did you not, before the Allowable or before the proration unit or drilling unit could be established?

A No, sir, our objective could be the Morrow, and there is no spacing on that, so we didn't anticipate we would have to.

Q At the time the Supplemental Agreement was entered into, and the only production that could be contemplated would be from the Cisco, it was within your contemplation that force pooling action would be brought, was it not?

A I guess it was, I don't remember specifically discussing it at that point. It wasn't our problem at that time.

MR. UTZ: Was your previous question to him, "So Shell would have to be force-pooled", or, "would have to be asked"?

MR. MORRIS: "Would be force-pooled".

MR. KELLAHIN: That is a legal conclusion; that is not necessarily true.

MR. MORRIS: I am just asking if that was within the contemplation of Mr. Brunson and the Hanagan interests.

I believe that's all I have, Mr. Examiner, except I will

offer Exhibits 8, 8-A and 8-B into evidence.

MR. UTZ: Without objection, Exhibits 8, 8-A and 8-B will be a part of this record.

> (Whereupon, Applican't Exhibits 8, 8-A & 8-B received in evidence)

BY MR. UTZ

Q Mr. Brunson, on what date was your Hanagan Tepee State well commenced?

A The exact date -- let me ask Bob. I don't remember, it was either the 5th or --

- Q December 6, 1963?
- A Yes, sir.
- Q Now, the Trigg Well in Section 7 was 2/24. When was that well completed?
 - A In 6 -- That is the "CJ"?
 - Q That will be "IB".
 - A IB, I mean, I don't know when it was completed.
- Q Was that well spudded after you spudded your Hablugan well?
- A No, that is the one that he had his little spudder on, holding a Federal lease with a spudder.
- Q At the time you began your drilling, then, you did not know the result of the drilling of the "IB" Trigg Well?
 - A No, sir.
 - Q How about the Lowe No. 1 in Section 21, 21, 24, when was



that well completed?

- A The No. 1 Indian Hills was completed about a year ago.
- Q You did know the results of the drilling of that well before you started your Hanagan Tepee?
 - A Right.
- Q And from the Lowe Well, you are approximately a mile and a quarter to a mile and a half, is that about right?
 - A Yes, sir, as the crow flies.
 - Q Diagonally?
 - A To drive it is several miles.

MR. UT2: Are there any other question of the witness?

MR. KELLAHIN: I would like to ask a couple of questions.

REDIRECT EXAMINATION

BY MR. KELLAHIN:

- Q During the course of the fire, did anybody with Shell Oil contact you in regard to this well?
 - A They contacted Mr. Hanagan.
 - Q Do you know who made that contact?
 - A No, sir, I do not.

MR. KELLAHIN: That's all I have. I would like to call Mr. Robert Hanagan.

MR. UTZ: Are there any other questions of the witness?

The witness may be excused.

(WITNESS EXCUSED)



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ROBERT HANAGAN (Witness sworn)

called as a witness herein, having been first duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. KELLAHIN:

- Q Would you state your name, please?
- A Robert G. Hanagan.
- Q Are you the Robert G. Hanagan who owns the interest in the well which is the subject of this case?
 - A Yes, sir.
- Q Mr. Hanagan, during the course of the fire which affected the well, were you contacted by anybody from Shell Oil Company?
 - A Mr. O. B. Lawrence.
- Q Did he make any reasonable kind of a proposal to you, at that time?
 - A Yes, sir.
 - Would you state what that was?
- A He said that Shell was interested in taking over our well at that time, while the fire was going; that they didn't want to sound like vultures, and that is a quote, but that on their terms they would like to take our well over, and since we were small boys, and they were more capable of handling the financial end of it, they would like to at least have us come and discuss with them the possibility of them taking over the well.



Q And did you do so?

I did not.

Did they make you any kind of an offer during this time?

A Only to the extent that they would work out some type of a deal with us if we were interested, whereby we could retain an override and just give them the whole works.

Q Did they offer to reimburse you for any part of your expenses to that depth?

A No, sir.

Did they offer to pay the contractor?

A No, sir, we didn't get that far into it, because as I said, the conversation was short. I was not interested at all.

MR. KELLAHIN: That's all I have.

A I would like to make one comment, it's unsolicited. But I cannot, for the life of me, understand it, and anyone in this room can certainly understand it; that a bargain like this does not come along very often. I don't think there is a man in this room that could do anything but be happy that they have gotten out from under this catastrophe at a bargain price, including ourselves, due to the mishap of the contractor financial wise.

The fact it is such a tremendous well would certainly seem to overshadow the few penaies' difference that Shell is arguing about. They had, incidentally, made a proposition to us as late as a week ago in which they agreed to pay \$50,000.00 for



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their share of the hole. So, if the hole is in such condition at \$50,000.00, I don't see why it is not in the same condition at \$60,000.00, insofar as the physical part of it is concerned. Of course, we were not interested in making any kind of a trade with them, because we felt at the least entitled at that time to a reimbursement for our actual expenditures.

MR. UTZ: In your opinion, is the well completed in such a manner it can be produced?

A Most assuredly, I think so. As a matter of fact, I think if we drill another one down there, we would very likely, if we didn't want to go to the Morrow, which doesn't look very good, we would very likely drill to the top of the Cisco and complete an open hole.

MR. UTZ: Are there any other questions?

MR. MORRIS: First, I would like to make the position of Shell clear here, for the record, since there has been some question raised. Shell is not at this time opposing force-pooling, or interested in the cost involved here. We are just as glad as Mr. Hanagan is that things have turned out as well as they have on this well.

The problem is, they haven't really turned out as well,
we don't believe, as they believe. We just can't paint too rosy
a picture of the completion of this well. There are many limitations
upon it, upon the shape that it is in. Shell is being asked to

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contribute its share of well costs, and it didn't want to develop this acreage at this time. Therefore, we are looking at the problem quite differently than Mr. Hanagan.

We are quite willing to pay our reasonable share of well costs; but in view of what the obligations of the operator, Mr. Hanagan, were in this situation, we believe that there has been an unreasonable payment made.

BY MR. MORRIS:

- Q Mr. Hanagan, in just the common language of the industry, as used from day to day, what is your understanding of what the word "turnkey" contract, the turnkey drilling bid is?
 - A It means they will furnish what is contained in the contract.
 - Q Is that all it means to you?
 - A That's about all.
 - Does it mean that they assume all of the liability?
 - A For the things they are furnishing, I assume.
- Q Does it mean they will assume the liability and assume full payment of any cost involved in a blowout?
 - A Are you asking me for an opinion?
- Q I am asking you how do you consider that term in your day-to-day use of that term in the oil business?
 - A The turned key.
 - Q Yes, sir, that is what turnkey contract means, generally?
 - A Yes, sir.



- Q And is that what you had in mind when you wrote this letter which has been marked Exhibit Number Eight-A?
 - A Yes, sir, that is what it says.

MR. MORRIS: I believe that's all.

MR. UTZ: Are there any other questions? The witness may be excused.

(WITNESS EXCUSED)

MR. UTZ: Is there any further testimony in this case?

MR. KELLAHIN: That's all.

MR. UTZ: Does Shell have anything?

MR. MORRIS: Yes, sir, we have one witness.

MR. UTZ: All right. Would you stand and be sworn?

DANA D. STOKES (WITNESS SWORN)

called as a witness herein, having been first duly sworn on oath, was examined and testified as follows:

DIRECT EXAMINATION

BY MR. MORRIS:

- Q Please state your name and position.
- A My name is Dana D. Stokes and I am Staff Reservoir Engineer for Shell Oil Company in Roswell, New Mexico.
- Q You have previously testified before the Commission or one of its Examiners, have you not?
 - A Yes, sir.
 - Q Are you familiar with the subject well, have you kept



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abreast of the activities on this lease and on this well?

- A Yes, sir, I have.
- Q Would you give a history, a short histor of Shell's lease, history of this pool, and of negotiations that you are familiar with between Shell Oil Company and the Hanagan interests, concerning these properties.

A Yes, we acquired this lease in April, 1960, State Lease Sale, and payment upon it is over \$36,320.00. Our first contact from other operators regarding the lease was in May of '63 when we were approached by M. E. Van Hook about joining the Unit he was trying to put together to the south of this area. His deal was to give him half of our acreage, we then would share in the completion and any subsequent lease wells. We turned the deal down.

In January, we were approached by Marathon to see if we would take a farm-out of their acreage, bounded by Shell, in the section in which the Tepee State is located. We advised Marathon that we were not prepared to accept their deal at that time. We were also approached at that same date by Fred Goodman with Ralph Lowe, who wanted a farm-out of acreage, and we also decided to turn him down. In June of 1963 we got a letter from Mr. Baxter requesting we join in drilling in Section 32, so the well would have to be drilled on Marathon's acreage. We advised Mr. Baxter we couldn't make a commitment at that time.

In July of '63, Order Number 2516 was issued, which



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created the Indian Hills-Upper Pennsylvanian Gas Pool, and adopted temporary operating rules. At the August 4th regular Hearing, August 4, '63, the nomenclature case was included in one that extended the Indian Hills-Upper Pennsylvanian Gas Pool from the original one section to include three-fourths of three other sections. On August 21, Mr. Baxter advised Shell he was requesting a force-pooling Hearing for his acreage, and the Hearing was scheduled for September 4. At that time, no ruling had been issued on the expansion of the Indian Hills Pool. Our acreage was more than a mile from the established gas pool, and was not subject to force-pooling.

However, on September 1, the order was issued enlarging the pool, and then on September 3, Mr. Baxter canceled this force-pooling Hearing which was scheduled for the 4th. On November 12th, '63, two months later, we got a letter from Mr. Hanagan requesting our approval of a non-standard location in this same Section 32. He also verbally requested that we join him in drilling a well or farm-out our acreage to him. We advised him we didn't have any objection to the location, we were not prepared to either join or farm-out to him. That was about the last of the history prior to drilling of the well.

Q Why was it Shell's intention, throughout this history that you have just given, not to either give a farm-out or join in the development of this acreage?



A Shell had long-term acreage, our acreage was bought for 10 years in 1960. We still had seven years to run at this time. The rest of the acreage in that section was short-term, expiring, early in '64. We felt that holding long-term acreage, we couldn't justify drilling a well in a place there was no market. Our gas people were questioned about chances for a market in this area, and felt it would be at least two years down the road, and probably longer.

So each time we were asked to join somebody or asked to farm out to them, we felt we couldn't justify spending the money when there would be no income from it.

Secondly, we couldn't justify farming out to them because our lease certainly wasn't in jeopardy; and we were sure, as much drilling activity as we had in that area, at that time, our acreage would be proved long before any market was available. I think at the time we were approached by Mr. Baxter, there were four wells drilling in the immediate vicinity, the Superior Condor Bluffs Unit No. 1, which is in 19, 22, 24; The Ralph Lowe staple No. 1, which was east of our acreage in 22, 21, 24. Penroc had announced its location in 19 of 21, 24 which is west of the discovery in Indian Hills; and Trigg was drilling his Federal IB. His spud date was 5/31/63, and it was announced as a 7500 foot Penn test. Now, I grant that he used the spudder on it until he got to 1400 feet, but I can't comment on his intentions.



At any rate, we felt that these were indicative of enough activity in the area that our acreage would be proved without our drilling prematurely on it, and by prematurely, we mean some two or three years before we would hope to get any income from it.

At this time, Mr. Hanagan chose to drill his well in order to earn the four hundred acres in Section 32. After he completed the well, he approached us for payment of three-eights of the well cost. We advised him that we were willing to pay our share of the cost of actually drilling the well to 366 feet and completing it, but we were not willing to stand any of the expenses associated with the fire and blowout.

Q Did you have a series of correspondence with the Hanagan interests?

(Whereupon Shell Exhibit No. 1 marked for identification)

A Yes, sir, I have an exhibit here which is Exhibit One, a series of four letters exchanged between the Hanagans and Shell Oil Company relating to the requests that we join in paying our share of the well cost.

The first letter was dated April 1, 1964, and Mr. Hanagan wrote the letter and referred to several verbal conversations between himself and representatives of Shell regarding the cost on the well. He finished his letter up by indicating that Shell had stated they did not wish to pay their share of the well cost, and asked that we write them a letter stating this.



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We answered his letter on April 7th, and advised him that we were willing to pay a share of the cost of the well; that it was just we didn't agree with the well cost estimate we had been given.

This letter was answered by one from Mr. Hanagan on April 8th, in which he again requested we send him a letter stating we were not willing to pay our share of the cost of the well, and we finally answered that one by a letter on April 9 that reiterates our position that we did hope to negotiate with him an acceptable basis for participation, but that we still can't justify paying any of the extra cost caused by the blowout and fire.

Q Mr. Stokes, what is Shell's position concerning well cost? I understand you to say that Shell is, and I assume you mean still is at this time, willing to pay its reasonable share of the well cost?

- A That's correct.
- Q Would you point out Shell's position on what it feels reasonable well cost to be in this case?
- A Well, we feel that initially, the Hanagan brothers had a turnkey contract which called for payment of \$129,987.50 plus landing the casing in a well drilled to 9550 feet. We felt that since the contractor did not complete his performance, that some adjustment should be made in the amount of money to be paid to him.

One way of arriving at an equitable number, I believe, would be to estimate the cost that would be required to drill from the 7,366 feet on to the contract depth. We can arrive at this by knowing approximately the day work charges for a rig. In this case we estimate a thousand dollars. I see by the Hanagans' contract it was actually \$950.00. From our experience in drilling wells, we think it would take about 25 days to drill drom the point where the Hanagans stopped to the contract depth of 9,550 feet. This would amount to \$25,000.00, and an additional two days would be required for logging, running casing and so on, getting the hole in shape for running casing 1 making a total of \$27,000.00 which probably should be deducted from turnkey contract for failure of performance.

MR. KELLAHIN: \$27,000.00?

A Yes, sir.

Q (BY MR. MORRIS) Now, as I understand you, Mr. Stokes, you are not by any stretch of the imagination suggesting that this is what should have been done is it should have been drilled on, but that this is just one method of looking at the turnkey price and arriving at a figure less than that turnkey price which would represent the actual value of the work performed?

A Yes, that's correct. We feel when a contractor has
failed to perform up to the specifications of the contract, that
the amount of money that he was paid should be subject to negotiations



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and we think that this is a reasonable way to arrive at a figure that is more in line with the cost that should be paid for a well drilled to 7366.

Q Mr. Stokes, I hand to you what was the Applicant's Exhibit Number Seven, which is the schedule of well cost. Are there any figures on there that we disagree with, that Shell disagrees with, with the exception of the cost on the turnkey contract?

A No, sir, most of the costs on here, other than the turnkey contract, involved completion. We have never argued with the number given for completion costs. The rest of them are for the surface location, roadways, and so on, which were not a part of the contract. The only figure that we make exception to is \$129, 987.50.

Q From what you have just testified, you reason that that figure should be reduced by \$27,000.00 because of the shape the well is in and the failure to complete the contract in the way that it was originally contemplated?

A This doesn't even take into account our feeling regarding the present condition of the hole with more than two thousand feet of open hole above the pay. We do have some open hole completions, but we don't have any with that much open hole above the pay. Our \$27,000.00 is based entirely on what we think would be a reasonable amount of money to drill a well from the depth that this well quit on to the contract depth. In other words,

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this is the amount by which we think the contractor failed in performance without regard to the fish left in the hole or the amount of open hole section we have above the pay.

Q Now, the fact that the fish is left in the hole, and the condition of the well is far from satisfactory, have a bearing on reasonableness of the cost, do they not?

A Well, they make us even more reluctant to not only be charged, but overcharged, in our opinion, for the well.

Q Would you care to comment, Mr. Stokes, on what the condition of the well is and how you feel that the condition would impair the future performance of this well?

A We have an Exhibit which was taken from Drill Bit, one of the trade journals, involving the unusual completion on this well. I would like to have it marked Exhibit Two.

(Whereupon, Shell Exhibit No. 2 marked for identification).

On the second page of this article, there is a diagrammatic sketch of the well as it is now completed. This shows the packers set in a carbonate section in the Bone Springs with several hundred feet of tubing below the packers and then the bottom of the tubing being just above the fish, which, of course, leaves the remaining 1700 feet of open hole. There is shale section in that open interval which, according to the article in Drill Bit slough badly during drilling.

MR. KELLAHIN: We, of course, object to this line of



testimony. This is hearsay and there is nothing in the record to show the accuracy of the article, and we don't know who wrote it or under what circumstances it was written, and information on the completion of this well has been furnished to the Commission by those who made the completion and we submit that is the best evidence.

A May I refer to the testimony then by one of your witnesses, who said that Shell's own --

MR. UTZ: You did not write this article, did you?

Q (By Mr. Morris) Mr. Stokes, do you know, of your own knowledge, that the matters contained in this article are true?

A They are substantially the same as have been testified to by the witnesses for Mr. Hanagan.

MR. MORRIS: We offer the article, and especially the diagram, for the purposes of the diagram contained therein, to show the existing condition of the well in a graphic form.

MR. KELLAHIN: We submit that the diagram is inaccurate, and a diagram showing the completion of this well has already been submitted in this case.

MR. MORRIS: We thought it might be of some aid to the Commission in seeing another version of this.

MR. UTZ: Mr. Morris, have you examined the well records of the Commission pertaining to this well?

MR. MORRIS: Yes, we have examined those records.



MR. UTZ: You agree they are substantially correct?

MR. MORRIS: My witness has examined them, I haven't examined them, myself.

MR. UTZ: Mr. Stokes, do you agree they are substantially correct?

A The only thing in the Commission's file is the notice of intent to drill, and the monthly pressure tests that are required by the Commission. The rest of the files have been held in the confidential section.

MR. UTZ: And you didn't get a chance to examine it?

A No, sir.

MR. KELLAHIN: Well, the records will show that was released a week ago.

MR. UTZ: Mr. Stokes, did you check out the well file from the Commission's records, this morning?

A I checked it out this morning.

MR. UTZ: Do you have that here?

A And it has a note in it to the effect that all forms with the exception of the ones I have mentioned are in the confidential file for a period of 90 days from January 31.

MR. UTZ: Then the completion of the well is not in it?

A It is not in it.

MR. UTZ: The log is not in or is it? Do you know whether you have submitted a report on this well?



MR. KELLAHIN: It has been submitted; yes, sir.

A Form C-103 has been submitted, but is in the confidential file.

MR. MORRIS: If the Examiner please, we are not going to insist on the introduction of this Exhibit Number Two, we offered it in the hope it might shed some additional light on the subject.

MR. UTZ: If the witness cares to testify as to what he thinks the condition of the hole is, I think it ought to be acceptable.

A I can refer back to some testimony that was given this morning by Mr. Hanagan on the fact that you have to mud-up at a specific data, which is just above the top of the Wolfcamp, because if your water hits the Wolfcamp shales, they will slough on you. I think this is a part of the record, and I want to point out that these shales are still open, and if it is ever necessary to kill this gas well with water in order to do anything to it, these shales are still going to slough. The well is completed in such a fashion it can't be swabbed within 1700 feet of the Pay zone.

MR. UTZ: It is swabbed to the bottom of the tubing?

- A Which is 1700 feet above the Pay zone.
- Q (BY MR. MORRIS:) To make a long story short, Mr. Stokes, you just don't feel you are getting your money's worth out of this deal; isn't that correct?

A We are getting a well, we believe, that cannot be worked over, and if it ever has trouble will have to be redrilled. We are willing to pay what we consider is a reasonable cost for that well, and actually this is a higher cost than we think we could drill a well properly equipped with casing and tubing for. other words, we are willing to pay the amount of their turnkey contract, except for the bottom part of the hole, which was never drilled.

Q Mr. Stokes, what is Shell Oil Company's position at this point as to what it is willing to do, what it feels is reasonable and it is willing to do with respect to a division of well cost on this hole?

A We feel that a reasonable figure for the cost of this well would be the original contract price, minus the \$27,000.00 which is the amount we estimate it would cost to drill from the present total depth to the 9,550 foot contract depth. This would leave a total of \$131,627.46, according to the cost figures furnished by Mr. Hanagan.

Q And we are willing to pay three-eights of the total price submitted, less the \$27,000.00 that you have previously referred to as being the difference in value between the well as it now stands and the well if it were drilled to 9,550 feet?

- A Yes, sir.
- Shell Oil Company stands ready to pay their proportionate



share at this time?

A Yes, sir, we have offered that amount previously.

MR. MORRIS: I believe that's all.

CROSS EXAMINATION

BY MR. UTZ:

Q Mr. Stokes, in your opinion, is this the amount that Shell could have drilled the well for and obtained an operator under the same circumstances?

A We believe that we could drill a well equipped with four and a half inch casing, drilled to 7,600 feet for \$121,000.00. Now, I noticed in the Exhibit regarding well cost, from nearby wells in the Indian Hills Pool, that each of the wells given was deeper than the subject well, some of them as much as three thousand feet deeper. In the cases where the wells were anywhere even comparable in depth, they did not have the total costs.

- Q You have been pretty close to this whole operation through out the entire procedure; have you not?
 - A Yes, sir.
- Q Do you know for what reason Shell was interested in this well immediately after it caught fire?
 - A No, sir.

MR. UTZ: Are there any other questions of the witness? MR. KELLAHIN: Yes.



BY MR. KELLAHIN:

Q My understanding, then, is that you base the reasonable well cost on the contract that was entered into by Hanagan?

A That was a reasonable well cost for a 9,550 foot well; yes.

Q And then on the same basis you would deduct \$27,000.00 as being the cost of drilling it beyond the point to which it was drilled, to the contract depth?

- A Yes, sir.
- Q Now, has Shell drilled any wells in the Indian Basin?
- A Not in the Indian Basin.
- Q Has it drilled any wells in the Indian Hills Pool?
- A No, sir.
- Q Has it had any in connection with area?
- A We have no interest.

Q You have no interest. So, actually, you have no figures on what you can base a conclusion as to what a reasonable well cost is; do you?

A We have a well currently being drilled eight to ten miles from here that is aimed at the same objectives. We received a contract price on that well of \$8.45 a foot; the well is currently drilling.

Q That is quite a low price, is it not; it is not a normal price for you to get a well of this kind?



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A We drilled a well several miles north and east of this same area last year, a well that was set up for ten thousand feet and we got a bid of \$9.25 a foot on that well.

Q But the well you are referring to is not in the Indian Hills?

- A No, sir, it is eight to ten miles away.
- Q Eight to ten miles?
- A It's the same general area with the same objectives.
- Q Do you know of any well in the Indian Hills that has been drilled for less than \$158,600.00?

A Not to my knowledge, no; but the list that was furnished here does not give the price on the only wells that are equivalent to this depth in this well.

Q But the bumper wells, those which were drilled to 9,550 feet in that vicinity, cost considerably more than \$27,000.00 more than Hanagan's, don't they, on the basis of that Exhibit? They are in excess of \$200,000.00 in each instance, aren't they?

- A Here is one to 9500 for \$195,000.00.
- Q Yes, sir. That is more than \$27,000.00 more than --
- A Here is one --
- Q The Hanagan well cost, isn't it?
- A Here is one to 8945 feet for \$165,000.00. That is seven thousand more than you are asking, and it went almost 2,000 feet deeper.



Q Less than a thousand feet deeper, didn't it?

A 8945 from 7366; that is 1500 feet.

Q Fifteen hundred feet. Isn't it Shell's position that if a person has a contract with a contractor and the well catches fire, then you hold the contractor to the contract even though there is a dispute, whether it is a turnkey job or not?

A It is our position that that is a matter of negotiation, and we were not a party to the negotiations that your parties had with Marlo and it's our position that we wouldn't have been quite so generous.

Q Then you just question the ability of Hanagan to bargain, is that right?

A I have no knowledge of his ability to bargain.

Q You are questioning our results, so I say you are questioning the ability of the bargainers. You say you can drill the well for \$121,000.00 in your opinion. You haven't drilled any wells yourselves in the Indian Hills?

A No, sir.

Q And you haven't any experience with the lost circulation zones which you encounter in this field, have you?

A Well, I believe that if you know they are there, and you are looking for them, you can handle them.

Q Does Shell, as a matter of practice, use the turnkey contract?

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A We are primarily footage.

Q And so you really haven't had any experience with turnkey contracts?

A I am familiar with their contracts, I know what they are I realize that the liability in a turnkey contracts is of --

Q But the degree of liability depends on the individual contractor, doesn't it?

A That's correct.

MR. UTZ: That's all, thank you.

MR. MORRIS: I have a couple of questions.

MR. UTZ: All right.

MR. MORRIS: I would like to have this marked for identification as Applicant's Exhibit Number Three.

(Whereupon, Applican'ts Exhibit

Number Three marked for identification)

REDIRECT EXAMINATION

BY MR. MORRIS:

Q Mr. Stokes, since you have testified that you have figured Shell could drill a well to this depth for \$121,000.00, I will ask you if you have made a detailed study of the cost involved to substantiate that figure?

A Yes, we have a detailed estimate of cost prepared by our Drilling Section. It has been marked as Exhibit Three.

This shows our estimated footage contract, \$8.45 a foot



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for 7,800 feet. It would be a cost of \$65,910.00. We show two drillstem tests for \$1,000.00 and electric log service for \$3, 300.00, and rig day work while surveying; that is three days at \$1,000.00 a day. On completion cost we show \$1,500.00 for well stimulation; \$800.00 for perforating; and \$2,000.00 for labor during completion operations; \$3,000.00 for drill sites and roads; \$5,000.00 for mud material, and equipment. Show \$4, 500.00 for cement and cementing services; \$1,200.00 for casing accessories; \$900.00 for miscellaneous, intangible; \$800.00 for tangible equipment.

We show 200 feet of 13 3/8ths casing at \$1,200.00; 3200 8 5/8ths at \$9,300.00; and 7800 feet at \$2,500.00; for Christmass Tree \$5,200.00, which gives a total cost of \$121,000.00. This is comparable to the estimate we had for our Shapwell well which is drilling eight to ten miles away, on which we did obtain an \$8.45 contract from Laughlin Brothers Drilling Company, and that contract is for 8,300 feet, I believe, somewhat deeper than this seventy-eight.

MR. MORRIS: I have no further questions.

MR. UTZ: Are there any other questions?

RECROSS EXAMINATION

BY MR. KELLAHIN:

- Q Is this contract you referred to a turnkey contract?
- A This is a footage contract.

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Q You buried the risk of any other cost being in encount of what your --

A On a certain amount. Most of our contracts provide that after 48 hours of lost circulation that rig time is on Shell, but it has to be 48 hours continuous. In other words, if he has 40 hours of lost circulation, regains it for six hours and loses it again, he starts all over. Most of our contracts hold provision where we don't assume complete liability for any mishap.

- Q But you do assume liability for most of the mishaps, don't you?
 - A Under footage contracts; yes, sir, to some extent.
- Q Under those circumstances, the cost could easily be far in excess of your estimate of \$121,000.00?
 - A Yes, sir, that's right.
 - Q Even lost circulation could run in excess of that?
- A That's true. If we lost circulation and weren't able to regain it.
 - Q On what do you base the figure of \$5,000.00 for mud?
- A Primarily on our International Federal McKee, which is located about seven miles northeast of here, which had the same objectives, and on which our mud bills were \$5,000.00.
 - Q It had no shows at all in that well?
 - A We had shows, we did not make a well?

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Q Do you know of any well that you used that small amount of mud in the Indian Hills Basin, Indian Basin?

- A The only data I have on mud bills is on your Exhibit.
- Q You haven't investigated what the general experience has been there in order to arrive at a reasonable figure for drilling in that pool, have you?
 - A Would you repeat that?
- Q Have you investigated the drilling experience in the Indian Basin or the Indian Hills Pool in order to allow what is a reasonable figure for drilling there?

A No, we have no interest in any of the wells there, therefore it would be difficult for us to obtain the information. We drill a lot of wells in New Mexico, in all sections of it.

We are pretty familiar with going contract rates in most parts of Southeastern New Mexico. We use these figures in arriving at our estimates prior to securing bids and we are very seldom off on our footage contract rates.

Q Now, it is true, is it not, Mr. Stokes, that you can encounter different circumstances in different pools, even though they may be just a few miles apart?

A Yes, that's true.

MR. KELLAHIN: That's all I have.

MR. UTZ: Mr. Stokes, to your knowledge, has Shell ever adjusted the contract when the operator was obviously in trouble,

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the drilling contractor was obviously in trouble?

A We have renegotiated contracts.

MR. UTZ: Are there any other questions? The witness may be excused.

(Witness excused.)

MR. UTZ: Mr. Morris, dc you have any other testimony? MR. MORRIS: I don't have any other testimony, I would like to make a very brief statement?

MR. UTZ: Statements are in order at this time.

MR. MORRIS: I will try to be very brief.

As previously stated, Shell Oil Company has no opposition to being force-pooled. In this case, we have no opposition to paying our reasonable well costs in this well. May I point out our share is three-eights of the total. It is our position, however, that the costs as presented by the Applicants are unreasonable, and that they are unreasonable even if the Hanagans actually have incurred those costs; they are still unreasonable. And we should not be saddled with the payment of our proportionate share of unreasonable payments that have been made.

In effect here, as has been seen, the Hanagans have a turnkey contract. Under that turnkey contract they were entitled to have a well drilled to the Morrow at 9550 and for that to pay \$129,000.00 some odd dollars as the turnkey price. Instead, we have a well drilled to less than 7,500 feet with junk

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in the hole that will make any workovers practically impossible, that will jeopardize the future of this well; and the same price is paid for that kind of a job as they were obligated to pay under the turnkey job.

Now, in effect, what Shell's position is, is that the Hanagans can't make a bad deal and saddle us with paying our share of it. That is what it boils down to in a nutshell.

Under a turnkey contract, as that term is recognized in the law, and as it is recognized also in the oil and gas business, there is no obligation to pay anything under that contract except upon full performance. If there is something less than full performance, then you forget the contract price, and you start whittling away at it to decide how much you are going to take away from that turnkey price in order to arrive at a reasonable value to the operator. We have presented testimony to show that the \$27,000.00 should have been deducted from the \$129,000.00 in order to arrive at what the reasonable cost was that should have been paid by the operators, by the owners of this well; that that was the value of the well to them of what had been actually done by the contractor, recognizing that the contractor under the turnkey contract has assumed the liability of paying for all of the cost of the blowout and the fire.

We always come back to the same point and that is: We feel that the Hanagans made a bad deal by going ahead and paying

the full contract price and getting much less than what they are entitled to under that contract, and now they are trying to turn around and saddle us with three-eights of a bad deal. Shell has stated for the record that they stand ready and willing here and now to pay three-eights of what they consider to be a reasonable well cost, which is the schedule submitted less the figure of \$27,000.00, and we submit to the Commission that it should enter its force-pooling. These properties and allocating well costs upon that basis as being reasonable well costs to be paid by the parties, proportionate to their interests.

MR. KELLAHIN: I think we are losing sight of the fact that what we are talking about is a commercial well which is potentialed in excess of two hundred million, and virtually every indication is that we have here a well that is worth several million dollars that will be ultimately realized from that well.

To say we are trying to saddle Shell with a bad bargain strains the situation beyond all reason, for this reason: In the first place, it was not a bad bargain. Shell has assumed none of the risks that were involved in the frilling of this well, and certainly there were risks, as events proved. They have not borne any part of the costs up to date, they have proven benefits received from their tract of the land as a result of the activities of Hanagan.

Now then, they say that we should have held the contractor to the contract price to the Morrow less \$27,000.00, when there is not a well, there has not been a well drilled in the entire pool, either the Indian Basin or the Indian Hills as far as the evidence in this record shows, which did not cost in excess of the amount we are talking about here. We are talking about \$158,627.46. There hasn't been a well drilled in the pool that cost less than that, regardless of the depth. We are talking about anywhere from a few hundred feet to a couple of thousand feet, but even so, if we added the cost of the deeper drilling, none of these wells -- for example, here is one drilled to 9,476 feet at a cost of \$225,000.00. You take your \$27,000.00 away from it, they are talking about, and you are still in excess of the price of this well.

We have endeavored in every way possible to bring to this Commission information on drilling costs in the area involved.

Now, to talk about drilling costs eight or ten miles away, or in Southeastern New Mexico, that evades the question; we are not drilling wells in Southeastern New Mexico, except in this one pool, and this is where the costs were incurred and this is where the risks were incurred, and that factor is clearly shown by the facts we presented to the Commission.

For example, on the mud cost, the least figure that was given to Hanagan in his efforts to find out the drilling

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costs was \$10,000.00 for mud. They give us a figure of five.

There hasn't been a well drilled that used that small amount of mud. One of them run for that Marathon Indian Basin No. 1

Well was \$47,000.00.

Now, to say that we should reduce the cost by \$27,000.00 is absurd. This contract has been referred to continuously by Mr. Morris as a turnkey contract. I think the contract will speak for itself, but certainly Hanagan was not without advice of Counsel that there may be a liability involved here at the time this renegotiation was made. In addition to that contract, he was not in a position to want to break up the drilling contractor and force him to carry the whole burden here.

It was also testified that Shell at that time thought enough of the hole and offered to take it over without any payment. It was apparently a good deal for them at that point, but of course, Hanagan was not ready to make that kind of a deal. Subsequent to that, Shell has offered \$50,000.00 as a share of the costs. What we are talking about is the actual costs incurred here. We submit that they are the \$158,627.46, that is what was paid for this well, and the testimony shows on each item what the money went for. We also showed that this is a reasonable cost, and that is the matter that is covered by the statute. The actual cost of the well, but not in excess of what is reasonable. There is no charge here for the fire. The fire

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actually cost, it is not in the record, but the fire actually cost the driller some \$85,000.00, and we didn't add that on here.

Hanagan didn't pay that. The driller paid it.

Now, as I say, Shell has assumed none of the risks here, and we submit that the risks were there and they were incurred and paid by Hanagan, and that at this time we are entitled to one hundred and fifty percent. We don't feel it unreasonable that they should be given a reasonable time to make up their minds, say, within ten days or some such time, whether they will pay now or whether such recovery is out of production, and make the risk factor contingent upon that decision. We submit whether they pay now or the recovery is out of production, Hanagan is entitled to one hundred and fifty percent of the risks that were incurred to the driller of this well, and we ask the Commission to enter an order in that effect.

MR. MORRIS: Actually, little attention has been given in this Hearing to the question of the risk factor, except that Mr. Kellahin plans injecting new areas of contention into the Hearing, at this point by suggesting that the Commission depart from issuing the standard force-pooling order to eliminate the choice which is customary in pooling orders, giving the person being pooled the alternative within a given period of time, which I believe almost always has been 30 days, to either pay

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his share of costs and thereby escape the penalty, or not pay his share of costs and let it be kept out of production, with penalty.

We have costs here, a bona fide dispute as to what are reasonable costs, and this is a problem that we are laying in the Commission's lap under its jurisdiction to determine these questions. Now, once the Commission has determined the question certainly we should be given the opportunity to pay our share of well costs without any risk factor being added onto it, because the risk factor is only applicable to those interests who do not pay their share of well cost but elect to pay out of production.

MR. KELLAHIN: If the Examiner please, there is nothing in the statute which make any such provision. It provides that the non-consenting owner would pay his reasonable cost which may include a risk factor of fifty percent, and it does not say it should be paid out of production or any other manner.



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STATE OF NEW MEXICO) ss COUNTY OF BERNALILLO

I, CHARLES WALKER, Notary Public in and for the County of Bernalillo, State of New Mexico, do hereby certify that the foregoing and attached Transcript of Hearing before the New Mexico Oil Conservation Commission was reported by me, and that the same is true and correct record of the said proceedings to the best of my knowledge, skill and ability.

WITNESS my Hand and Seal this 27th day of July, 1964.

Charles Malker NOTARY PUBLIC

My Commission Expires: March 25, 1968.



I do hereby certify t	that the	foregoing is
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... Examiner New Mexico Oil Conservation Commission

OIL AND GAS ACCOUNTING COMMISSION

From the desk of Carroll J. Lee Executive Director.



Peter- There is a copy of my letter to Rice Engineering apparently the do allocate the oil sales to the various wells. as long as they do operate in these fashion we will have me problem in accountry for takes and State royally due.

Carroll