CASE 5741: GULF OIL CORP. FOR DIRECTIONAL DRILLING, LEA COUNTY, NEW MEXICO

### CASE NO.

574/

APPlication, Transcripts, Small Exhibits,

ETC.



### REPORT of SUB-SURFACE DIRECTIONAL SURVEY

Gulf Energy & Minerals U.S. COMPANY

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Central Drinkard Unit # 420
WELL NAME

Lea County, New Mexico
LOCATION

JOB NUMBER

WT 1176-G2ЦЦ WT 1176-S02Ц9 WT 1276-S02070 TYPE OF SURVEY

DATE

Gyro 11-16-76
Magnetic Multi Shot 11-19-76
Magnetic Multi Shot 12-6-76

SURVEY BY

OFFICE



### P. O. Box 5577/Midland, Texas 79701/(915) 563-0511 TV/X 910-881-5066/Cable: EASTCO

STATE OF TEXAS COUNTY OF MIDLAND
7, Ray Warner , in the employ of the Directional Drilling Department of Eastman Whipstock, Inc. did on the days of 11-16, 1976 thru , 19 conduct or supervise the taking of a Gyroscopic Survey by the method of Magnetic Oriented Survey from a depth of 0 feet to 1098 feet, with records of inclination being taken at approximately every 100 feet.
This survey was conducted at the request of Gulf Energy and Minerals U.S. for their Central Drinkard Unit Well No. 120  Lea county, State of New Mexico, in the field.
La, Haure
STATE OF TEXAS COUNTY OF MIDLAND
Ray Warner, known to me to be the person whose name is subscribed to this instrument, who after being by me duly sworn on oath, states that he has knowledge of all the facts stated above and that the same is a true and correct statement of facts therein recited.
Subscribed and sworn to before me on thisllth day of December . 19 76
Notary Public in and for the county of Midland, Texas



### P. O. Box 5577/Midland, Texas 79701/(915) 563-0511 TVIX 910-881-5066/ Cable: EASTCO

STATE OF TEXAS COUNTY OF MIDLAND
I, James Blackledge , in the employ of the Directional Drilling Department of Bastman Whipstock, Inc. did on the days of 11-19 , 19 76 thru , 19 conduct or supervise the taking of a Multiple Shot Survey by the method of Magnetic Oriented Survey from a depth of 1098 feet to 3000 feet, with records of inclination being taken at approximately every 91 feet.
This survey was conducted at the request of Gulf Fnergy and Minerals U.S. for their Central Drinkard Unit Well No. 420 ,  Lea county, State of New Mexico , in the field.
James Blas Dele
STATE OF TEXAS COUNTY OF MIDLAND
Before me, the undersigned authority, on this day personally appeared James Blackledge, known to me to be the person whose name is subscribed to this instrument, who after being by me duly sworn oath, states that he has knowledge of all the facts stated above and that the same is a true and correct statement of facts therein recited.
Subscribed and sworn to before me on this <u>llth</u> day of <u>December</u> .
Notary Public in and for the county of Midland, Texas

Directional Drillers/Sub-Surface Surveyors/Instrument & Tool Flontals/Calca/Worldwide



### P. O. Box 5577/Midland, Texas 79701/(915) 563-0511 TWX 910-881-5066/Cable: EASTCO

STATE OF TEXAS COUNTY OF MIDLAND
T, Ray Warner, in the employ of the Directional Drilling Department of Eastman Whipstock, Inc. did on the days of 12-6.  19 76 thru , 19 conduct or supervise the taking of a Multiple Shot Survey by the method of Magnetic Oriented Survey from a depth of 3000 feet to 6779 feet, with records of inclination being taken at approximately every 92 feet.
This survey was conducted at the request of Gulf Fnergy and Minerals U.S. for their Central Drinkard Unit Well No. 120  Lea county, State of New Mexico, in the field.
Lay Hacker
STATE OF TEXAS COUNTY OF MIDLAND
Before me, the undersigned authority, on this day personally appeared  Ray Warner, known to me to be the person whose name is subscribed to this instrument, who after being by me duly sworn on oath, states that he has knowledge of all the facts stated above and that the same is a true and correct statement of facts therein recited.
Subscribed and sworn to before me on thisllth_day of _December .
Phyllic I Capeland Notary Public In and for the county of Midland, Texas

GULF EMERBY AND MIMERAL U. S. LEA COUNTY, MEW MEXICO CDU NO. 420 GYRO WT1176-G244 11-16-76

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* SUBBLITTED	BY :	ķ
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### RECORD OF SURVEY PRO. DIRECTION 0 0

				ANGLE						
		TRUE	TRUE	OF	COUR	SE	VERT.	DEGPER	RECTANG	OULAR
MEAS.	COURSE	COURSE	VERT.	INCLIN	DIREC	TION	SEC.	100	COORDI	NATES
DEPTH	LEMGTH	LENGTH	DEPTH	M G	Đ	M				
0	0.	0.00	0.80	0 0	N 0	0 F	0.00	0.00	0.00	0.00
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200	100.	100.00		0 15		. –			· · · · · · · · · · · · · · · · · · ·	0.32E
300	100.	100,00	300.00	0 0	* ** 1111 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1		e e e ce como de la co			0.33E
400	100.	100.00	400.00	0 0	N 0	0 E	0.00	6.02	0.77 N	0.33E
500	100.	100.00	500.00	0 n	n o	0 F	0.00	0.02	0.77 N	0.33E
600		restriction of the second of the second			an italia Tar	ar et a sette en et et e	o errorianista (f. 1886). Timo	oracional de la companya de la comp	and the second companies of the contract of the second	G.22E
700	-	-			•		<del>-</del>		•	0.44E
800	. 🗕 🖚			er en len len da. Talene	· • • • • • • • • • • • • • • • • • • •					0.42E
900	100.	100.00	900.00	0 15	S 57	0 E	0.00	0.22	0.56 S	0.64E
	DEPTH 0 100 200 300 400 500 600 700 800	100 100. 200 100. 300 100. 400 100. 500 100. 600 100. 700 100.	DEPTH LENGTH         LENGTH           0         0         0.00           100         100         100         00           200         100         100         00         00           300         100         100         00         00           400         100         100         00         00           500         100         100         00         00           600         100         100         00         00           700         100         100         00         00           800         100         100         00         00	MEAS. COURSE COURSE VERT. UEPTH LENGTH LENGTH DEPTH  0 0. 0.00 0.00 100 100. 100.00 100.00 200 100. 100.00 200.00 300 100. 100.00 300.00 400 100. 100.00 400.00 500 100. 100.00 500.00 600 100. 100.00 600.00 700 100. 100.00 600.00	TRUE TRUE OF  MEAS. COURSE COURSE VERT. INCLIN  UEPTH LENGTH LENGTH DEPTH D M  0 0. 0.00 0.00 0 0  100 100. 100.00 100.00 0 15  200 100. 100.00 200.00 0 15  300 100. 100.00 300.00 0 0  400 100. 100.00 400.00 0 0  500 100. 100.00 500.00 0 0  600 100. 100.00 600.00 0 15  700 100. 100.00 700.00 0 15  800 100. 100.00 600.00 0 15	TRUE TRUE OF COURSE MEAS. COURSE COURSE VERT. INCLIN DIRECT UEPTH LENGTH LENGTH DEPTH D M D  O O. 0.00 0.00 0 0 N O  100 100. 100.00 100.00 0 15 N 56  200 100. 100.00 200.00 0 15 N 6  300 100. 100.00 300.00 0 0 N O  400 100. 100.00 400.00 0 N O  500 100. 100.00 500.00 0 N O  600 100. 100.00 600.00 0 15 S 64  700 100. 100.00 600.00 0 15 S 1  800 100. 100.00 600.00 0 15 S 4	TRUE TRUE OF COURSE  MEAS. COURSE COURSE VERT. INCLIN DIRECTION  DEPTH LENGTH LENGTH DEPTH D M D M  O 0. 0.00 0.00 0 0 N 0 0 E  100 100. 100.00 100.00 0 15 N 56 0 E  200 100. 100.00 200.00 0 15 N 6 0 E  300 100. 100.00 300.00 0 0 N 0 0 E  400 100. 100.00 400.00 0 0 N 0 0 E  500 100. 100.00 500.00 0 N 0 0 E  600 100. 100.00 600.00 0 15 S 64 0 W  700 100. 100.00 600.00 0 15 S 1 0 E  800 100. 100.00 600.00 0 15 S 4 0 W	TRUE TRUE OF COURSE VERT.  MEAS. COURSE COURSE VERT. INCLIN DIRECTION SEC.  UEPTH LENGTH LENGTH DEPTH D M D M  O 0. 0.00 0.00 0 0 N 0 0 E 0.00  100 100. 100.00 100.00 0 15 N 56 0 E 0.00  200 100. 100.00 200.00 0 15 N 6 0 E 0.00  300 100. 100.00 300.00 0 0 N 0 0 E 0.00  400 100. 100.00 400.00 0 N 0 0 E 0.00  500 100. 100.00 500.00 0 N 0 0 E 0.00  500 100. 100.00 500.00 0 N 0 0 E 0.00  600 100. 100.00 600.00 0 15 S 64 0 W 0.00  700 100. 100.00 700.00 0 15 S 1 0 E 0.00	TRUE TRUE OF COURSE VERT. DEGPER MEAS. COURSE COURSE VERT. INCLIN DIRECTION SEC. 100 UEPTH LENGTH LENGTH DEPTH D M D M  O	TRUE TRUE OF COURSE VERT. DEGPER RECTANGULEN SEC. 100 C O R D I UEPTH LENGTH DEPTH D M D M  O 0. 0.00 0.00 0 0 N O E 0.00 0.25 0.19 N 200 100. 100.00 200.00 0 15 N 60 E 0.00 0.25 0.19 N 200 100. 100.00 200.00 0 15 N 6 D E 0.00 0.25 0.77 N 400 100. 100.00 400.00 0 N O E 0.00 0.25 0.77 N 400 100. 100.00 400.00 0 N O E 0.00 0.25 0.77 N 400 100. 100.00 500.00 0 N O E 0.00 0.02 0.77 N 600 100. 100.00 600.00 0 15 S 64 D W 0.00 0.25 0.59 N 700 100. 100.00 600.00 0 15 S 1 D E 0.00 0.25 0.59 N 700 100. 100.00 700.00 0 15 S 1 D E 0.00 0.26 0.24 N 800 100. 100.00 600.00 0 15 S 4 D W 0.00 0.03 0.20 S

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MEAS.	COURSE	TRUE COURSE LENGTH	TRUE VERT. DEPTH	AUGLE OF INCLIN D M	COURSE DIRECTION D M	VERT.	DOG LEG DEGPER 100	RECTAN	
1000	100.	100,00	999,99 1097 <b>.</b> 99	0 30		0.00	0.27	0.34 S 1.02 S	1.22E 2.06E
	BOTTOM	HOLE CL	OSURE	2.30 FE	ET AT S 63	31 58 E			- <del> </del>
	**(ME	THOO OF	COMPUTAT	IONRADI	US OF CURVA	TURE)**			
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GULF ENERGY AND MINERALS U.S. LEA COUNTY, NEW MEXICO C.D.U: WELL NO.420 MAGNETIC MULTISHOT SURVEY WT1176-S0249 NOVEMBER 19, 1976

PAGE 1 \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\* \* SUBMITTED BY \*
\*EASTMAN+WHIPSTOCK \* THIC. \*\*\*\*\*\*\*

### RECORD OF SURVEY PRO. DIRECTION 0 0

		COURSE	TRUE COURSE LENGTH	VERT.	ANGLE OF INCLIN D M	COURSE DIRECTION	M	VERT.	DOG LEG DEGPER 100	R E C T A N C C O O R D I		
-	1098		0.00		0 15	\$ 38 0		0,00	0.00	1.02 S	2.130	
12	1154	56.	56.00			N 3 0		0.00	1.01	0.57 S	2.30E	
	1245		90.99			N 60 0	-	0.00	0.70	0.24 11	2.80E	
	1337	92.	91.99			N 48 0	E	0.00	0.31	0.83 N	3.615	
15	1428	91.	90.99	1427,98	0 45	N 42 0	E.	0.00	0.09	1.67.N	4,45E	
) <u>.</u>	1520	92.	91.99	1519.97	1 0	N 56 0	٤	0.00	0.36	2.59 N	5.51E	,
- !:	1611	91.	90,99		1 0	S 88 0	E	0.00	0.61	2.11 N	7.00E	
1.	1703	92.	91,99	1702.94	0 45	N 48 0	E	0.00		2.62 N	8.27E	
)	1794	91.	90.99	1793,93	1 0	N 51 0	£	0.00	0.28	3,53 N	9,33E	
1.	1886	92.	91,98	1885.91	1 30	N 32 0	£	0.00	0.70	5,02 N	10.65E	

				ANGLE			DOG LEG		
		TRUL	1หปฏ	Q۴	COURSE	VERT.	DEGPER	RECTARGULAR	
MEAS.	COURSE	COURSE	VERT.	INCLIN	DIRECTION	SEC.	100	COORDINATES	3
DEPTH	LENGTH	LENGTH	DEPTH	$D = N_i$	D N				
. 1977.	91.	90.96	1976,87	2 0	N 59 O E	0.00	1.04	6.95 N 12.62E	
3069	92.	91.93	2068,80	2 30	N 44 O E	0.00	0.84	9.19 N 15.44E ~	~
. 2160	91.	90.91	2159,71	2 30	N 46 O E	0.00	0.09	12.00 11 18.246	
2252	92.	91.09	2251,60	ŌŪ	N 58 O E	0.00	0.63	14,90 N 21,57E	
2343	91,	90.85	2342.46	3 30	N 47 O E	0.00	0.63	18.24 N 25.49E	
2435	92.	91.83	2434,29	3 30	N 47 . 0 E	0.00	.0.02	22.08 N . 29.60E	
2526	91.	90.84	2525.13	3 15	N 45 O E	0.00	0.30	25,80 N 33,46E/	
2618	92.	91,86	2616,99	3 0	N 52 0 E	0.00	0.50	29,12 // 37,21E	
2709	91.	90.88	2707.87	3 C	N 50 0 E	0.00	0.12	32.11 N 40.91E	
2801	92.	91.87	2799.74	3 0	N 53 0 E	0.00	0.17	35.11 N 44.68E	
2892	91.	90.89	2890,63	2 45	N 50 0 E	0.00	0.32	37,95 N48,25£	
2984	92.	91.90	2982,53	2 30	N 45 0 E	0.00	0.37	40.80 N 51.36E	
3000	16.	15.98			N 45 0 E	0.00	0.13	41.29 N51.85£	

BOTTOM HOLE CLOSURE 66.28 FEET AT N 51 27 58 E

\*\* (METHOD "F COMPUTATION -- RADIUS OF CURVATURE) \*\*

CENTRAL DRIBKAD TIBERALS U.S. CENTRAL DRIBKAD TUNIT NUMBER 420 MAGNETIC MULTIPLE SHOT SURVEY WT127680270 DECEMBER 6.1976

\*\*\*\*\*\*\*\*\*\* \* SUBBLITTED BY . \* \*EASTHAH-LHIPSTOCK \* IHC.

### RECORD OF SURVLY PRO. DIRECTION 0 0

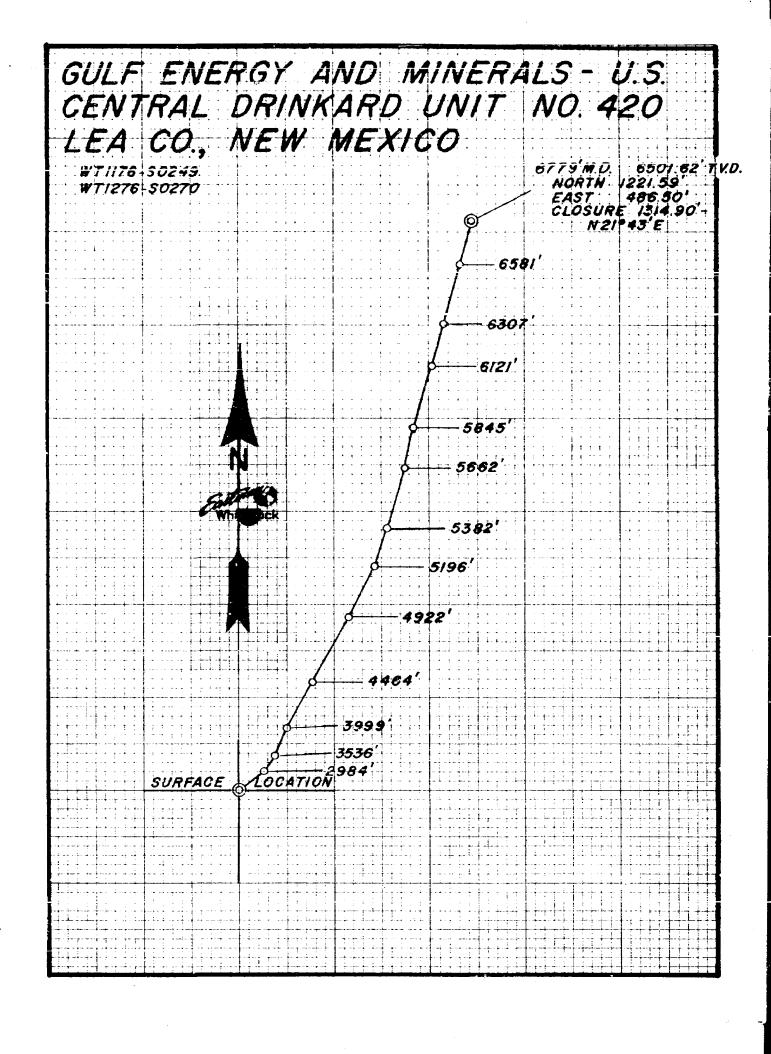
	v		TRUE	TRUE	AHGLE	COURSE	DOG LEG VERT. DEGPER	RECIANGULAR
· · · · · · · · · · · · · · · · · · ·		COURSE LENGTH	COURSE LEMGTH	VERT. DEPTH	1NCL1M D N	DIRECTION D M	SE.C. 100	COORDINATES
	3000	ŋ <b>.</b>	0.06	299 <sub>0</sub> .51	2 30	N 45 0 C	0.00 0.00	41,29 M 51,85E
	3074	74.	73.92	3072.43	2 45	N 47 O E	0.00 0.36	43.64 N 54.29E
	3166	92.	91.85	3164.23	3 45	N 50 0 E	0.00 1.10	47.10 N 58.19E
	3259	93.	92,77	3257.06	4 15	143 O E	0.00 0.75	51.56 N 62.90E
•	3352	93.	92.66	3349.72	5 30	N 36 0 E	0.00 1.49	. 57.66 N 67.92E
	3443	91.	90.56	3440.28	5 45	N 28 0 E	0.00 0.90	65.22 N 72.64E
•	3536	93.	92.47	3532.75	6 30	11 18 0 E	0.00 1.40	74.34 N 76.52E
	3627	91.	90.39	3623.14	6 45	14 0 E	0.00 0.58	84.43 N 79.41E
	3720	93.	92.31	3715.45	7 15	1 11 0 E	0.00 0.67	95.49 N 81.86E
	3813	93.	92,23	3807.68	7 30	H 16 0 E	0.00 0.74	107.10 M 84.65E

					Aligue			006 LEG	
			TRUL	TRUE	οF	COURSE	vert.	DEGPER	RECTANGULAR
)	MEAS.	CCURSE	COURSE	VERT.	INCLIN	DIRECTION	SEC.	700	COORDIDATES
	HT43U	LENGTH	LENGTH	DEPTH	D A	D M			
	3906	93.	91.67	3699.35	11 45	N 31 0 E	0.00	5.27	121.31 N90.83E
3	<b>3</b> 999	93.	91.85	3990.40	11 45	N 28 0 L	0.00	0.66	137.79 N 100.156 W
	4092	93.	91.69	4031.49	11 36	N 30 0 E	0.00	0.51	154.18 N 109.24E
	4185	93.	91.13	417 <u>2</u> .62	11 3 <sub>0</sub>	N 36 0 E	0.00	0.06	170.24 N 118.516
)	4279	94.	91,63	4260,25	14 15.	N_34 0 E	0.00	3.07	188.00 N . 129.60E
	4372	93.	89.50	4353.75	17 15	N 27 0 C	0.00	3, 81	209.73 N 142.41E
)	4464	92.	87.68	4441.43		1: 28 0 E	0.00	88.0	234.44 N 155.27E
	4554	90.	85,47	4526.91	18 30	N 28 U E	0.00	0.56	259.33 N 168.50E
	4646	92.	86.92	4613,83	19 45	N 28 O E	0.00	1.36	285.94 H 102.65E
) :	4737		. 85.30	4699.13	51, 0	. № 55 0 E	0.00	1.43	313.78 N 197.77E
	4829	92.	85.30	4784.43	23 0	N 30 0 E	0.00	2.21	343.78 N 214.74E
)	4922	93.	85,12	4869.55	24 30	R 27 0 E	0.69	2.07	376.69 N 232.61E
15	5014	92.	83.71	4953,27	24 30	N 27 0 E	0.00	0.00	410.68 N 249.93E
	5105	91.	82.47	5035.74	25 პე	N 25 0 E	0.00	1.44	445.24 N 266.79E
)	5196	91.	61.79	5117.53	26 36	, N 23 , O E	0.00	1.46	481.69 N 283.01E
	5290	94.	83.75	5201.28	27 3th	H 19 0 E	0.00	2.20	521,52 N 298.30E
٠	5382	92.	81.14	5282,42	28 45	N 10 0 E	0.00	1.45	562.64 N 312.06E
.,	5476	94.	82.41	5364.83	28 45	N 16 0 E	0.00	1.02	605.88 N 325.28E
	5568		30.08	5445.39	29 0	N 15 0 E	0.00	0.59	648.69 N 337.15E
) <u>.</u>	5662	94.	82.31	5527.71	28 45	N 16 0 E	0.00	0.5₺	692.43 N 349.28E

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				•	Aucti			DOG TEG		
			TRUE	TRUE	0F	<b>C</b> OURSE	VERT.	DEGPER	RECTAN	GULAR
	MEAS.	COURSE	COURCE	VERT.	INCLIM	DIRECTION	SEC.	100	coord	INATES
	DEPTH	LEMGTH	LENGTH	DEFTH	D tr	M = 0				
	5752	90.	75.52	5506.23	29 45	N 14 0 E	0.00	1.55	734.91 11	360.66E
	5845	93.	80.84	5667.67	29 30	6 14 0 E	0.60	0.27	779.51 N	371.79E
	5939	94.	81.81	5768.89	29 30	N 14 0 E	0.09	$0 \cdot 02$	824.42 N	382.98E
	6030	91.	78.71	5647.59	30 45	N 14 0 E	0.00	1.37	868.74 N	394.03E
	6151	91	_ 78•u1	5926.00	30 15	N 14 0 E	0.00	0.55	913.55 H	405.21E <
	6216	95.	82.17	600g <b>.17</b>	30 e	N 15 0 E	0.00	0.59	959.71 N	417.14E
•	6307	91.	78.51	6086.68	30 45	N 14 O E	0.00	0.99	1004.26 N	428.67E
	6397	90.	78.23	6164.91	28 30	N 15 0 E	0.00	2.56	1047.33 N	439.80E
	6490	93.	81.73	6216.64	23 30	N 15 0 E	0.00	0.00	1090.19 N	451.29E
	6581	91.	80.16	6325.80	58 6	N 15 0 E	0,•00	0.55	1131,80 府	462.44E
	6680	99.	87.41	6414.21	28 0	N 15 0 E	0.00	0.00	1176,69 N	474.476
	6779	99.	87.41	6501.62	28 C	N 15 0 F	0.00	0.00	1221.59 N	486.50E -

\*\*(AETHOD OF COMPUTATION--RADIUS OF CURVATURE)\*\*

Gentral Drinkard Unit 420  33 71 South 37 East Lea  2300 Institute of the second of the subject well by colored peacifor backure marks on the plat beau.  34 Institute the average dedicated to the subject well by colored peacifor backure marks on the plat beau.  34 Institute than one lease of different concership is dedicated to the well, have the interests of all connects from constitution, martination, force-pooling, etc.  35 No. Ill answer is "vest" type of consolidation.  36 answer is "no." list the connects and tract descriptions which have actually been consolidated it is consummitization, activated to the well until all interests have been consolidated it is communitation, activated on force-pooling, or otherwise for until a consistantial unit, climating such interests, has been approach to the Connects scale.  36 BBL 6779 M.D.  37 EAST 486-501  CLOSURE. 311, 901  NETO 1931 E  1 Tends of the section of the such actual consistant of the section of	<u> </u>		the outer houndaries of	the Section	er <del>de</del> er
2300 part of SOUTH 270 part 1520 part of SOUTH 250 part of SOUTH 2	The second contract the second contract to th		CENTRAL DRIN	KARD UNIT	420
2000 to the South	J 33	1		L.EA	
1 Outline the acreage dedicated to the subject well by colored peacifor bachure marks on the plat below.  2 If more than one lease is dedicated to the well, autline each and identify the ownership thereof flodil as to wanking interest and royalty).  3 If more than one lease of different ownership is dedicated to the well, have the interests of all owners being consolidated by communitization, matrivation, force-pooling, etc?  [Yes	2300	OUTH	1520	EAST	
If more than one lease is dedicated to the well, outline each and identify the ownership thereof thoth as to wonkers interest and royalty).  3. If more than one lease of different ownership is dedicated to the well, have the interests of all owners been consolidated to communitization, unitization, force-pooling etc?  3. Yes 3. No. If answer is "yes," type of consolidation.  4. An allower is "no." list the owners and tract descriptions which have actually been consolidated if so reverse sate of this form if necessary.  5. No allower is assigned to the well until all interests have been consolidated the communitization, unitization, incredisposition will be assigned to the well until all interests have been consolidated the communitization, unitization, incredisposition will be assigned to the well until all interests have been consolidated the communitization, unitization, incredisposition of the communitization of the communities of	ir s Lyen Flex.   Freducing For	· · · · · · · · · · · · · · · · · · ·		11501 160	The Art Area San Constitution
If nowe than one leave of different ownership is dedicated to the well, have the interests of all owners incon consolidated by communitization, unitization, force-pooling, etc?  Yes No If answer is "ves," type of consolidation  if answer is "no," lists the owners and tract descriptions which have actually been consolidated if so reverse subject this form if necessory.)  No allowable will be assigned to the well until all interests have been consolidated the communitization, unitization, forced-pooling, or otherwise for until a constandard unit, eliminating such interests, has been approved in the Commission.  CERTIFICATION  Therefore certify that the observation to be based by a new interest of the based on the place of the place of the based on the place of the based on the place of the based of any monetage and entirely made in the place of the based of any monetage and entirely made in the place of the based of any monetage and entirely made in the place of the based of any monetage and entirely made in the based of any monetage and entirely made in the place of th	i Outline the acreage dedica	ted to the subject well	by colored pencil or	r hachure marks on	the plat below.
dated by communitization, unitization, force-pooling, etc?  Yes No If answer is "ves," type of consolidation  if answer is "no," list the owners and trart descriptions which have actually been consolidated it so reverse said of this form if necessary.)  No allowable will be assigned to the well until all interests have been consolidated the communitization, amitization, incred-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved to the Communities such.  FERRIFLE FLOW  Thereby certify that the information transport transport of the rest of any standard conjugate to the Communities of the part of the p		dedicated to the well, o	outline each and iden	ntify the ownership	thereof (both as to working
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CASE

# BEFORE THE NEW MEXICO OIL CONSERVATION COMMISSION Santa Fe, New Mexico August 13, 1976 EXAMINER HEARING IN THE MATTER OF: Application of Gulf Oil Corporation for ) directional drilling, Lea County, New Mexico. )

BEFORE: Richard L. Stamets, Examiner

### TRANSCRIPT OF HEARING

### APPEARANCES

For the New Mexico Oil Conservation Commission:	Lynn Teschendorf, Esq. Legal Counsel for the Commission State Land Office Building Santa Fe, New Mexico
For the Applicant:	Robert H. Thomas, Esq. Legal Counsel for Gulf Oil Corp. Midland, Texas
	Jack M. Campbell, Esq. CAMPBELL & BINGAMAN Attorneys at Law Box 2208 Santa Fe, New Mexico

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Phone (505) 982-9212

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MR. STAMETS: We will call next Case 5741.

MS. TESCHENDORF: Case 5741, application of Gulf Oil Corporation for directional drilling, Lea County, New Mexico.

MR. THOMAS: Mr. Examiner, I'm Robert H. Thomas,
Gulf Oil in Midland, Texas. I have one witness to be sworn.
Is the witness still under oath?

MR. STAMETS: Mr. Kalteyer was sworn in the previous case and he is still under oath.

MR. THOMAS: Once again, Mr. Examiner, we wish to reflect that Jack M. Campbell, attorney in Santa Fe has entered an appearance in this case.

### CHARLES F. KALTEYER

called as a witness, having been previously sworn, was examined and testified as follows:

### DIRECT EXAMINATION

BY MR. THOMAS:

Q. Mr. Kalteyer, what is Gulf seeking in this application?

A. Gulf is seeking authority to directionally drill three gas wells in the Central Drinkard Unit, Drinkard Pool,
Lea County, New Mexico. The proposed wells are to be
located as follows: Unit Well No. 406 with a surface location of twenty-two hundred feet from the south line and fourteen

hundred and seventy feet from the east line, Section 33,

Township 21 South, Range 37 East and the proposed bottomhole location is in Unit I approximately twenty-three hundred
and ninety feet from the south line and eight hundred and
seventy feet from the east line of Section 33, Township 21

South, Range 37 East.

Unit Well No. 407 with a surface location of fourteen hundred and seventy-five feet from the south line and fourteen hundred and forty feet from the east line of Section 33, Township 21 South, Range 37 East and a proposed bottom-hole location in Unit P approximately located at eleven hundred and ten feet from the south line, seven hundred feet from the east line of Section 33, Township 21 South, Range 37 East.

And the third well, Unit Well No. 420 with a surface location twenty-three hundred feet from the south line fifteen hundred and twenty feet from the east line of Section 33, Township 21 South, Range 37 East and a proposed bottom-hole location in Unit H approximately seventeen hundred and ninety feet from the north line and one thousand and thirty feet from the east line of Section 33, Township 21 South, Range 37 East.

- Q Do you have an exhibit which shows the Central Drinkard Unit and the locations of the proposed wells?
  - A Yes, sir, Exhibit One is a plat of the Central

Drinkard Unit project. It is outlined by hachures and it depicts the location of the injection and producing wells, together with the wells located in the immediately adjacent leases. The wells which are encircled are Drinkard oil producing wells and those enclosed in triangles are water injection wells. The wells enclosed in orange squares are currently Drinkard gas completions. The three wells enclosed in the green squares are the proposed bottom-hole locations of the three wells which are the subject of this hearing.

- Q. Will these three wells be bottomed at regular locations according to state-wide spacing rules?
- A. Yes, sir, we propose to complete these wells within a hundred feet of the herein proposed bottom-hole location.
- Q. Are there currently oil wells producing from each of the proration units to which these wells are scheduled to be drilled?
- A. Yes, sir, there are. Each of the forty-acre proration units currently have wells producing therefrom.

The latest production test data is as follows:
Well No. 144 for which Unit Well No. 420 will be drilled to,
that unit on test produced three oil and five water, pumping
with a gas-oil ratio of sixteen hundred and thirty-three to
one.

Unit Well No. 145 on test on June 4th of '76 produced five barrels of oil and eight barrels of water,

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pumping with a fourteen hundred to one ratio. Unit Well No. 406 is to be located in that proration unit.

The next well is Unit Well No. 157 on cest in May produced seven barrels of oil and one barrel of water, pumping with a nineteen thousand, one hundred and forty-three to one ratio. Unit Well No. 407 is to be located in that proration unit.

- Why does Gulf believe it is necessary to drill a second well on each of these proration units?
- A. During the past two years there has been a development of gas completions in the Upper Drinkard zone. This new gas development has resulted in a number of completions offsetting the Central Drinkard along the northeast and south boundaries as shown in Exhibit One. The gas zone in the Drinkard Pool lies above the oil zone which we are waterflooding in the Central Drinkard Unit and apparently was not originally associated with the oil column due to an impermeable section existing between the two zones.
- Have any of the wells on the Central Drinkard Unit Q. been completed in the gas zone?
- Yes, sir, you will note that as of this time there have been eleven Drinkard gas completions within the unit.
- Why do the operators of the Central Drinkard Unit propose to directionally drill these three wells which are the subject of this hearing?

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By referring to Exhibit One you will note the heavy concentration of Drinkard gas completions offsetting the southeast portion of the Central Drinkard Unit in the west half of Section 34. Our proposed wells are necessary to protect correlative rights of the Central Drinkard Unit owners. The operators of the unit believe that gas can be developed without a detrimental effect on the waterflood project. There is evidence that separation exists between the Upper Drinkard gas zone and the Lower Drinkard oil zone and in order to protect our investment in the waterflood and maximize secondary oil recovery which, of course, is our primary concern, we have decided to use separate wellbores to develop the Drinkard gas zone. Since the gas completions have to be initially fractured we do not intend to have a gas producer on the same forty-acre proration unit where water is being injected. We propose to make gas completions only on those tracts which have Drinkard oil producers located thereon.

Dual completions would be acceptable where practical, however, no downhole commingling is planned between the Upper and Lower Drinkard sections in the Central Drinkard Unit.

- Q. How do you intend to handle the allowable of two Drinkard completions on each forty-acre proration unit?
  - A. As in Case 5474, Order R-5030 which authorized

the administrative procedure for additional wells on each proration unit of the Central Drinkard Unit, irrespective of how many completions are made on each tract, each forty-acre proration unit will receive no more than the eight hundred and fifty-two MCF per day gas limit based on the top allowable of a hundred and forty-two barrels of oil per day times the gas-oil ratio limit of six thousand to one cubic feet per barrel. There is no allowable limit on the rate of oil production from the Central Drinkard Unit since it is under active waterflood.

- Q. Why is it necessary to directionally drill these wells?
- A. Because of residential and commercial development within the city limits of Eunice and to minimize the disruption of city streets and alleys the operators of the Central Drinkard Unit believe it more practicable to directionally drill these wells from outside the city limits.
- Q Do you have a second exhibit giving more detail as to the location of the surface and bottom-hole locations with respect to the city limits of Eunice?
- A. Yes, sir, Exhibit Two is a large scale map which depicts the surface locations outside the city limits of Eunice with bottom-holes projected well under the city limits at regular locations. We propose to kick the bottom-hole locations of these wells from six hundred and thirty feet in

the case of Well No. 406 to as much as thirteen hundred and ten feet in Unit Well No. 420.

- Q. What is the normal cost to drill and complete a gas well in the Drinkard Pool as compared to directionally drilling the subject wells?
- A. A normal hole drilled as a Drinkard gas completion costs in the neighborhood of a hundred and ninety thousand dollars each and we have estimated the cost to directionally drill the subject wells at approximately two hundred twenty-six thousand dollars each.
- Q. You have previously referred to Oil Conservation Commission Case No. 5474 and Order R-5030, what spacing requirements were set out in that case?
- A. The Commission authorized the approval of such additional producing wells and injection wells at orthodox and unorthodox locations within the boundaries of the Central Drinkard Unit area as may be necessary to complete an efficient production and injection pattern and to protect the Unit from drainage provided said wells are drilled no closer than three hundred and thirty feet to the outer boundary of the unit area nor closer than ten feet to any quarter-quarter section or subdivision inner boundary.
- Q Will the three proposed wells be in compliance with the spacing requirements as set out by this order?
  - A. Yes, sir.

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Q.	Do y	ou h	ave	a	copy	of	Order	R-5030	for	the
convenienc	ce of	the	Exa	m i	ner?					

- a. Yes, I labeled it Exhibit Three.
- Q Exhibit Three, please. Will you again summarize what the operators of the Central Drinkard Unit are seeking in this application?
- A. The operators are seeking authority to directionally drill Unit Wells No. 406, 407 and 420 in the Central Drinkard Unit from the previously mentioned surface locations and to be bottomed within one hundred feet of the proposed bottomhole location.
- Q. Mr. Kalteyer, is it your opinion based on your experience that the granting of this application will prevent waste and protect correlative rights?
  - A. Yes, sir, I do.
  - Q Were these exhibits prepared under your supervision?
  - A. Yes, sir.

MR. THOMAS: Mr. Examiner, we have nothing further, I would move that Exhibits One, Two and Three be admitted in this case.

MR. STAMETS: These exhibits will be admitted.

(THEREUPON, Applicant's Exhibits One through

Three were admitted into evidence.)

MR. STAMETS: Are there questions of the witness? He may be excused.

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(THEREUPON, the witness was excused.)

MR. STAMETS: Is there anything further in this case? The case will be taken under advisement.

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### REPORTER'S CERTIFICATE

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

Sidney F. Morrish, C.S.R.

i do herety certify that the foregoing is a complete record of the proceedings in the Examiner hearing of Case No. 5744, heard by me on 1976.

New Mexico Oil Conservation Commission



DIRECTOR

JOE D. RAMEY

Other\_

Bob Thomas

### **OIL CONSERVATION COMMISSION**

STATE OF NEW MEXICO P. O. BOX 2088 · SANTA FE

87501

PHIL R. LUCERO September 1, 1976



STATE GEOLOGIST
EMERY C. ARNOLD

Re: CASE NO.\_ 5741 Mr. Jack Campbell ORDER NO. R-5263 Campbell & Bingaman Attorneys at Law Post Office Box 2208 Applicant: Santa Fe, New Mexico 87501 Gulf Oil Corporation Dear Sir: Enclosed herewith are two copies of the above-referenced Commission order recently entered in the subject case. Yours very truly, JOE D. RAMEY Director JDR/fd Copy of order also sent to: Hobbs OCC Arcesia 'OCC Aztec OCC\_

### 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. 5741 Order No. R-5263

APPLICATION OF GULF OIL CORPORATION FOR DIRECTIONAL DRILLING, LEA COUNTY, NEW MEXICO.

### ORDER OF THE COMMISSION

### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 18, 1976, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 31st day of August, 1976, the Commission, a quorum being present, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

### FINDS:

- (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, Gulf Oil Corporation, seeks authority for the directional drilling of three wells on its Central Drinkard Unit, Drinkard Pool, Lea County, New Mexico, all in Section 33, Township 21 South, Range 37 East, with 40-acre proration units to be dedicated as follows:

Well No. 406, surface location 2200 feet from the South Line and 1470 feet from the East line, bottom-hole Location within 100 feet of a point 2390 feet from the South line and 870 feet from the East line, Unit I dedication;

Well No. 407, surface location 1475 feet from the South line and 1440 feet from the East line, bottom-hole location within 100 feet of a point 1110 feet from the South line and 700 feet from the East line, Unit P dedication and;

Well No. 420, surface location 2300 feet from the South line and 1520 feet from the East line, bottom-hole location within 100 feet of a point 1790 feet from the North line and 1030 feet from the East line, Unit H dedication.

-2-Case No. 5741 Order No. R-5263

- (3) That the applicant seeks authority to directional drill said wells to permit the surface locations to be outside the Eunice city limits and more distant from occupied dwellings.
- (4) That approval of the application is in the interest of conservation, inasmuch as it will minimize surface damage and fire hazard, and will not cause waste, and will not impair correlative rights, provided that the applicant should be required to determine the subsurface locations of the bottom of the holes by means of a continuous multi-shot directional survey conducted subsequent to directional drilling, if said wells are to be completed as producing wells.

### IT IS THEREFORE ORDERED:

(1) That the applicant, Gulf Oil Corporation, is hereby authorized to directionally drill three wells on its Central Drinkard Unit, Drinkard Pool, Lea County, New Mexico, all in Section 33, Township 21 South, Range 37 East, and with unit dedications as follows:

Well No. 406, surface location 2200 feet from the South line and 1470 feet from the East line, bottom-hole location within 100 feet of a point 2390 feet from the South line and 870 feet from the East line, Unit I dedication;

Well No. 407, surface location 1475 feet from the South line and 1440 feet from the East line, bottom-hole location within 100 feet of a point 1110 feet from the South line and 700 feet from the East line, Unit P dedication and;

Well No. 420, surface location 2300 feet from the South line and 1520 feet from the East line, bottom-hole location within 100 feet of a point 1790 feet from the North line and 1030 feet from the East line, Unit H dedication.

PROVIDED HOWEVER, that subsequent to the above-described directional drilling, should said wells be producers, a continuous multi-shot directional survey shall be made of the wellbore from total depth to the whipstock point with shot points not more than 100 feet apart; that the operator shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe office of the Commission, Box 2088, Santa Fe, New Mexico; and that the operator shall notify the Commission's Hobbs district office of the date and time said surveys are to be commenced.

(2) That Form C-105 shall be filed in accordance with Commission Rule 1108 and the operator shall indicate thereon true vertical depths in addition to measured depths.

-3-Case No. 5741 Order No. R-5263

(3) 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

PHIL R. LUCERO, Chairman

EMERY C. ARNOLD, Member

JOE D. RAMEY, Member & Secretary

S E A L

CASE 5741:

- Application of Continental Cil Company to amend Order No. R-1234, Lea County, New Mexico. Applicant, in the above-styled cause, seeks the amendment of Rule 19 of the Special Rules for the Warren Tubb Gas Pool promulgated by Order No. R-1234, to provide for an increase in the gas-oil ratio limitation for oil wells in said pool to some figure not to exceed 10,000 to one.
- Application of BCO Inc. for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks authority to commingle production from the Basin Dakota Gas Pool and Lybrook-Gallup Oil Pool and undesignated Greenhorn and Mancos production in the wellbore of its Dunn Well No. 2, located in Unit F of Section 10, Township 23 North, Range 7 West, Rio Arriba County, New Mexico.
- Application of Howard Boatright Company for amendment of Order No. R-5208, Eddy County, New Mexico.

  Applicant, in the above-styled cause, seeks the amendment of Order No. R-5208 which authorized salt water disposal into the Delaware Formation through applicant's State CS Well No. 1 located in Unit L of Section 17, Township 21 South, Range 27 East, Eddy County, New Mexico. Applicant seeks to increase the maximum wellhead injection pressure for said well from 400 psi to 800 psi.
- CASE 5709: Application of Tahoe Oil and Cattle Company for an exception to the provisions of Order No. R-3221, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks, as an exception to the provisions of Commission Order No. R-3221, permission to construct and operate an earthen salt water disposal pit in the NE/4 SW/4 of Section 2, Township 20 South, Range 30 East, Eddy County, New Mexico.
- CASE 5738: Application of Hayes Oil Company for a non-standard proration unit and an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 240-acre non-standard gas proration unit comprising the NE/4 and N/2 SE/4 of Section 18, Township 20 South, Range 26 East, Eddy County, New Mexico, to be dedicated to a Morrow test well proposed to be drilled at an unorthodox location for said unit at a point 1980 feet from the South line and 660 feet from the East line of said Section 18.
- CASE 5739: Application of William 5. McCoy for an unorthodox gas well location, Eddy County, New Mexico.

  Applicant, in the above-styled cause, seeks approval for the unorthodox gas well location of its McCord Well No. 1 to be drilled at a point 660 feet from the North and East lines of Section 22, Township 23 South, Range 26 East, South Carlsbad-Morrow Gas Pool, Eddy County, New Mexico.
- CASE 5740: Application of Gulf Oil Corporation for compulsory pooling, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks an order pooling all mineral interests in the Pennsylvanian formation underlying Section 28, Township 24 South, Range 26 East, Eddy County, New Mexico, to be dedicated to applicant's White City Penn Gas Com. Unit No. 3 Well No. 1, to be drilled at a point 2310 feet from the North and West lines of said Section 28. Also to be considered will be the cost of drilling and completing said well and the allocation of the cost thereof as well as actual operating costs and charges for supervision. Also to be considered will be the designation of applicant as operator of the well and a charge for risk involved in drilling said well.
  - Application of Gulf Oil Corporation for directional drilling, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority for the directional drilling of three wells on its Central Drinkard Unit, Drinkard Pool, Lea County, New Mexico, all in Section 33, Township 21 South, Hange 37 East, as follows: Well No. 406, surface location 2200 feet from the South line and 1470 feet from the East line, bottom-hole location 2390 feet from the South line and 870 feet from the East line; Well No. 407, surface location 1475 feet from the South line and 1440 feet from the East line, bottom-hole location 1110 feet from the South line and 700 feet from the East line; Well No. 420, surface location 2300 feet from the South line and 1520 feet from the East line, bottom-hole location 1790 feet from the North line and 1030 feet from the East line. All of the above wells would be bottomed within 100 feet of the above-described bottom-hole locations.
- Application of Gulf Oil Corporation for a non-standard gas proration unit and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for a 160-acre non-standard Blinebry gas proration unit comprising the S/2 NW/4 and W/2 NE/4 of Section 28, Township 21 South, Range 37 East, Lee County, New Mexico, to be simultaneously dedicated to applicant's Eunice King Wells Nos. 5 and 24, located, respectively, 1874 feet from the North and West lines, and 2086 feet from the North line and 760 feet from the West line of said Section 28. Applicant further seeks authority to later substitute its Eunice King Well No. 15, located 2086 feet from the North and West lines of said Section 28 for the aforesaid Well No. 5 in the above-described simultaneous dedication.
- CASE 5743: In the matter of the hearing called by the Oil Conservation Commission on its own motion to permit John W. Adams, Executor of Estates of R. W. and June Adams; and Ruth McGahey, Fred McGahey and David McGahey dba Adams & McGahey, American Employers' Insurance Company, and all other interested parties to appear and show cause why the following wells located in Township 21 North, Range 30 East, Harding County, New Mexico, should not be plugged and abandoned in accordance with a Commission-approved plugging program:

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

BEFORE THE OIL CONSERVATION COMMISSION

OF THE STATE OF NEW MEXIGNEFORE EXAMINER STAMETS OIL CONSERVATION COMMISSION

EXHIBIT NO. 3 IN THE MATTER OF THE HEARING CASE NO. <u>374/</u> CALLED BY THE OIL CONSERVATION COMMISSION OF NEW MEXICO FOR Submitted by Great Che Control

Hearing Date 5/15 CASE NO. 5474

Order No. R-5030

APPLICATION OF GULF OIL COMPANY FOR TWO NON-STANDARD LOCATIONS AND THE AMENDMENT OF ORDERS NOS. R-2904 AND R-2909, LEA COUNTY, NEW MEXICO.

THE PURPOSE OF CONSIDERING:

### ORDER OF THE COMMISSION

### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on May 14, 1975, at Santa Fe, New Mexico, before Examiner Daniel S. Nutter.

NOW, on this 22nd day of May, 1975, 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,

- (1) That due public notice having Leen given as required by law, the Commission has jurisdiction of this cause and the subject matter thereof.
- (2) That Gulf Oil Company is the operator of the Central Drinkard Unit, Drinkard Pool, Lea County, New Mexico, which unit is governed by the Central Drinkard Unit Agreement which was approved by the Commission by Order No. R-2904, dated May 6, 1965.
- (3) That pursuant to Commission Order No. R-2909, dated May 10, 1965, and certain other orders, the applicant is conducting secondary recovery operations within said Central Drinkard Unit Area.
- (4) That the unitized interval for said Central Drinkard Unit Area was defined in the original Central Drinkard Unit Agreement as being from 6440 feet to 6590 feet as found on the log of the Gulf Oil Corporation J. N. Carson Well No. 7, located 810 feet from the North line and 2180 feet from the East line of Section 33, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico.

- (5) That the applicant seeks the amendment of the Central Drinkard Unit Agreement to change the unitized interval for said Central Drinkard Unit Area to be from 6330 feet to 6590 feet as found on the log of the aforesaid J. N. Carson Well No. 7.
- (6) That the applicant further seeks approval for the unorthodox location of two wells in the Drinkard Pool underlying said Central Drinkard Unit, said wells being Unit Well No. 101 located 554 feet from the North line and 766 feet from the East line, and Unit Well No. 401 located 660 feet from the North line and 660 feet from the East line, both in Section 28, Township 21 South, Range 37 East, NMPM.
- (7) That the applicant further seeks the amendment of Order No. R-2909, which authorized the secondary recovery project in said Central Drinkard Unit Area, to provide for the administrative approval of additional wells at unorthodox locations in said unit area.
- (8) That the necessity for the amendment of the unitized interval of the Central Drinkard Unit, the location of the two wells described in Finding No. (6) above, and the establishment of the administrative procedure described in Finding No. (7) above is occasioned by development of the Upper Drinkard gas pay in wells offsetting the Central Drinkard Unit Area.
- (9) That to protect the said unit area from drainage by offsetting wells, the applicant, as unit operator, must complete gas wells in the Upper Drinkard gas pay on the same 40-acre tract as existing wells in the Lower Drinkard oil pay which are part of the Lower Drinkard Waterflood Project.
- (10) That approval of the amendment of the vertical limits of the unitized interval of the Central Drinkard Unit, the two above-described non-standard locations, and the aforesaid administrative procedure is in the interest of the protection of correlative rights and the prevention of waste, and should be approved, provided that the gas production from any 40-acre tract should be limited to top unit allowable for the Drinkard Pool times the limiting gas-oil ratio for the pool.

### IT IS THEREFORE ORDERED:

(1) That the vertical limits of the unitized interval of the Central Drinkard Unit Area are hereby amended to be from 6330 feet to 6590 feet as found on the log of the Gulf Oil Corporation J. N. Carson Well No. 7, located 810 feet from the North line and 2180 feet from the East line of Section 33, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico, subject to like approval by the Commissioner of Public Lands for the State of New Mexico.

(2) That the applicant, Gulf Oil Company, is hereby authorized to complete the following wells in the Drinkard Pool at the following non-standard locations in Section 28, Township 21 South, Range 37 East, NMPM, Lea County, New Mexico:

Central Drinkard Unit Well No. 101, located 554 feet from the North line and 766 feet from the East line; and

Central Drinkard Unit Well No. 401, located 660 feet from the North line and 660 feet from the East line.

PROVIDED HOWEVER, that the 40-acre tract upon which said wells are located shall have a limited casinghead gas allowable determined by multiplying top unit allowable for the Drinkard Pool by the gas-oil ratio limitation for said pool.

(3) That Order (1) of Commission Order No. R-2909, is hereby amended by the addition of the following:

"PROVIDED HOWEVER, that the Secretary-Director of the Commission is hereby authorized to approve such additional producing wells and injection wells at orthodox and unorthodox locations within the boundaries of the Central Drinkard Unit Area as may be necessary to complete an efficient production and injection pattern, and to protect the unit from drainage, provided said wells are drilled no closer than 330 feet to the outer boundary of the unit area nor closer than 10 feet to any quarter-quarter section or subdivision inner boundary, and provided further, that no 40-acre tract shall be permitted to produce more gas than the amount obtained by multiplying top unit allowable for the Drinkard Pool by the limiting gas-oil ratio for the pool. To obtain such administrative approval, the unit operator shall file proper application with the Commission, which application, if it seeks to convert additional wells to injection or to drill additional production or injection wells, shall include the following:

- (1) A plat showing the location of the proposed well, all wells within the project area, and offset operators, and locating wells which offset the project area.
- (2) A schematic drawing of the proposed injection well which fully describes the casing, tubing, perforated interval, and depth.
- (3) A letter stating that all offset operators to the proposed well have been furnished a complete copy of the application and the date of notification.

The Secretary-Director may approve the proposed well if, within 20 days after receiving the application, no objection to the proposal is received. The Secretary-Director may grant immediate approval, provided waivers of objection are received from all offset operators."

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

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

STATE OF NEW MEXICO OIL CONSERVATION COMMISSION

I.R. TRUJILLO, Chairman

PHIL R. LUCERO, Member

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

SEAL

J. R. MODRALL JAMES E. SPERLING JOSEPH E. ROCHL GEORGE T. HARRIS, JR DANIEL A. SISK LELAND S. SEDBERRY JR. ALLEN C DEWEY, JR. FRANK H. ALLEN, JR JAMES A. PARKER JOHN R. COONEY
KENNETH L. HARRIGAN
DETER I ADANG DALE W. EK DALE W. EX
DENNIS J. FALK
JOE R. G. FULCHER
ARTHUR D. MELENDRES
JAMES P. HOUGHTON
GEORGE J. HOPKINS

PAUL M. FISH JUDY A. FRY

MODRALL, SPERLING, ROEHL, HARRIS & SISK

PUBLIC SERVICE BUILDING

P. O. BOX 2168

ALBUQUERQUE, NEW MEXICO 87103

August 12, 1976

JOHN F. SIMMS(1865-1954) AUGUSTUS T. SEYMOUR

> TELEPHONE 243-45H AREA CODE 505

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

Re: Application of Gulf Oil Corporation - Case No. 5741

Dear Mr. Ramey:

Please be advised that we inadvertently filed an Entry of Appearance on behalf of Gulf Oil Corporation in the above-captioned case which has been docketed for examiner's hearing on August 18, 1976. This letter will serve as your notification that we withdraw as local counsel for Gulf Oil Corporation in this matter.

Very truly yours,

James E. Sperli

/jev

Mr. Morgan L. Copeland Regional Attorney
The Gulf Companies

### BEFORE THE OIL CONSERVATION COMMISSION STATE OF NEW MEXICO

IN THE MATTER OF THE APPLICATION OF GULF OIL CORPORATION FOR DIRECTIONAL DRILLING ON ITS CENTRAL DRINKARD UNIT, DRINKARD POOL, LEA COUNTY, NEW MEXICO

Case No. 5741

### ENTRY OF APPEARANCE

The undersigned, Modrall, Sperling, Roehl, Harris & Sisk, of Albuquerque, New Mexico, hereby enter their appearance for the Applicant, Gulf Oil Corporation, with its house counsel of Midland, Texas.

MODRALL SPERLING ROEHL HARRIS & SISK

James E. Sperling Attorneys for Gulf Oil Corporation P./O. Box 2168

Afbuquerque, New Mexico 87103 Telephone: (505) 243-4511

Care 5741

### பெர் Energy and Minerals Companyம் இரை கண்

### PRODUCTION DEPARTMENT

MIDLAND DISTRICT

July 23, 1976

P. O. Drawer 1150 Midland, Texas 79701

B. L. Choate
District Production MANAGER
R. F. Ward, Jr.

DISTRICT GERATIONS MANAGER
C. E. Fields
DISTRICT SERVICES MANAGER

A. J. Evans, Jr.
DISTRICT ENVIRONMENTAL, SAFETY,
AND JOINT OPERATIONS MANAGER

C. Howard

Onthings children schilling manager

Oil Conservation Commission Post Office Box 2088 Santa Fe, New Mexico 87501

ATTN: Mr. Joe D. Ramey

RE: Application to Directionally Drill Three (3) Central Drinkard Unit Wells, Drinkard Pool, Lea County, New Mexico

### Gentlemen:

Gulf Oil Corporation respectfully requests that a hearing be scheduled on your docket for August 18, 1976 to consider an application to directionally drill three (3) wells in the Central Drinkard Unit, Drinkard Pool, Lea County, New Mexico. The proposed wells are to be located as follows:

Unit Well #406

Surface Location:

2200 FSL & 1470 FEL

Section 33, T-21-S, R-37-E.

Bottom Hole Location:

Unit I, approximately 2390° FSL & 870° FEL, Section 33,

T-21-S, R-37-E.

Unit Well #407

Surface Location:

1475 FSL & 1440 FEL

Section 33, T-21-S, R-37-E.

Bottom Hole Location:

Unit P, approximately 1110°

FSL & 700 FEL, Section 33,

T-21-S, R-37-E.

Unit Well #420

Surface Location:

2300 FSL & 1520 FEL

Section 33, T-21-S, R-37-E.

Bottom Hole Location:

Unit H, approximately 1790'

FNL & 1030 FEL, Section 33,

T-21-S, R-37-E.



A DIVISION OF GULF OIL CORPORATION

OIL CONSERVATION COMMISSION Page 2
July 23, 1976

Under Order #R-5030 the Commission amended Order #R-2909 to provide for the authorization of "such additional producing wells and injection wells at orthodox or unorthodox locations within the boundaries of the Central Drinkard Unit area as may be necessary to complete an efficient production and injection pattern, and to protect the unit from drainage, provided said wells are drilled no closer than 330' to the outer boundary of the unit area nor closer than 10' to any quarter-quarter section or subdivision inner boundary, and provided further, that no 40-acre tract shall be permitted to produce more gas than the amount obtained by multiplying the top unit allowable for the Drinkard Pool by the limiting gas-oil ratio for the pool".

Each of the proposed unit wells are to be completed in the gas zone of the Drinkard Pay as a second well on the same 40-acre tract on which a currently completed Drinkard oil zone producer is now under active waterflood.

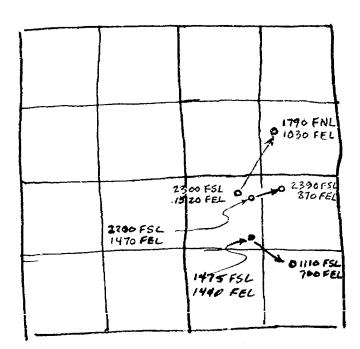
The proposed wells will be within the city limits of Eunice and will require directional drilling because of residential and commercial development in the area. The purpose of this request is to provide separate well bores for production of the oil zone and gas zone of the Drinkard Pay and to protect correlative rights.

Yours very truly,

R. F. WARD, JR.

CFK: mw

cc: J. T. Sexton
Post Office Box 1980
Hobbs, New Mexico 88240



dr/

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### BEFORE THE DIL 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:

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CASE NO. 5741 Order No. R- 5263

APPLICATION OF GULF OIL CORPORATION FOR DIRECTIONAL DRILLING, LEA COUNTY, NEW MEXICO.

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### ORDER OF THE COMMISSION

### BY THE COMMISSION:

This cause came on for hearing at 9 a.m. on August 18, 1976, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

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

### FINDS:

- (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, Gulf Oil Corporation, seeks authority for the directional drilling of three wells on its Central Drinkard Unit, Drinkard Pool, Lea County, New Mexico, all in Section 33,

Well No. 406, surface location 2200 feet from the South line and 1470 feet from the East line, bottom-hole location 12390 feet from the South line and 870 feet from the East line, unit I dedication;

Well No. 407, surface location 1475 feet from the South

line and 1440 feet from the East line, bottom-acte

within the feet from the South! line and 700 feet

from the East line and point of the feet from the East line and 700 feet

from the East line and point of the East line and 700 feet

-2-Case No. 5741 Order No. R-

Well No. 420, surface location 2300 feet from the South line and 1520 feet from the East line, bottom-hole with 100 feet from the North line and 1030 feet from the East line, Unit H dedication.

(3) That the applicant seeks authority to directional drill permit the surface locations repatible to be said wells to within 199 feet of the above described photom hale outside the only of Eunice permit and prove to carry of the dwellings.

(4) That approval of the application is in the interest of will minimize swifts demand of the conservation, inasmuch as it may result in the resovery of hazard, properly in the resovery of the cause was to otherwise unrecoverable oil, thereby preventing waste, and will

not impair correlative rights, provided that the applicant should be required to determine the subsurface locations of the bottom of the holes by means of a continuous multi-shot directional survey conducted subsequent to directional drilling, if said wells are to be completed as producing wells.

### IT IS THEREFORE ORDERED:

(1) That the applicant, Gulf Oil Corporation, is hereby authorized to directionally drill three wells on its Central Drinkard Unit, Drinkard Pool, Lea County, New Mexico, all in Section 33, Township 21 South, Range 37 East, as follows:

Well No. 406, surface location 2200 feet from the South
line and 1470 feet from the East line, bottom-hole
within 100 feet from the South line and 870 feet
from the East line, unit I dedication;

Well No. 407, surface location 1475 feet from the South
line and 1440 feet from the East line, at bottom-hole
with location 1110 feet from the South line and 700 feet
from the East line ceast unit P dedication and;

Well No. 420, surface location 2300 feet from the South line and 1520 feet from the East line, bottom-hole with 100 feet of april location 1790 feet from the North line and 1030 feet from the East line, unit H dedication.

PROVIDED HOWEVER, that subsequent to the above-described directional drilling, should said wells be producers, a continuous multi-shot directional survey shall be made of the wellbore from total depth to the whipstock point with shot points not more than 100 feet apart; that the operator shall cause the surveying company to forward a copy of the survey report directly to the Santa Fe Office of the Commission, Box 2088, Santa Fe, New Mexico; and that the operator shall notify the Commission's Hobbs District Office of the date and time said surveys are to be commenced.

(2) That Form C-105 shall be filed in accordance with Commission Rule 1108 and the operator shall indicate thereon true vertical depths in addition to measured depths.

(3) That the	OΤ	said	Sectio	n

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

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