Getty Oil Company | P.O. Box 730 Hobbs, New Mexico 88240 (505) 397-3571

Central Exploration and Production Division

November 29, 1983

Oil Conservation Commission
State of New Mexico
P.O. Box 2088
Santa Fe, NM 87501

Attention: Mr. Joe Ramey, Division Director

RE: Application for downhole commingling
Getty Oil Company
George D. Riggs "B" Lease, Well No. 8
Langlie Mattix Queen and Justis Blinebry Pools
Lea County, New Mexico

Gentlemen:

We respectfully request Administrative Approval for downhole commingling in the George D. Riggs Well No. 8. The subject well is a single completion to the Langlie Mattix Queen. In accordance with Commission Rule 303, Paragraph C, the following facts are submitted:

1. The well is located in Unit Letter B, Section 1, Township 26 South, Range 37 East, 330' FNL and 1650' FEL, on the G.D. Riggs Lease, Lea County, New Mexico. The pools to be downhole commingled are the Langlie Mattix Queen and the Justis Blinebry.

2. Acreage dedicated to this well is 40 acres, and a plat is attached showing the locations of well no. 8 and offset wells. Offsetting wells, aside from those on the Riggs Lease, are the Vinson Ramsay Lease by Gulf Oil Company. (See attached plat.).

3. The Langlie Mattix Queen produced 2 BOPD, 2 BWPD, and 17 MCFPD on October 20, 1983, from perforations at 3169-3292', (1 spf, selective). Production for the Justis Blinebry on May 12, 1983 was 4 BOPD, 40 BWPD, and 23 MCFPD from perforations at 5111-5402', (selective). Oil Conservation Commission Form C-116 is attached. Prior to downhole commingling, it is proposed to acidize the Blinebry zone and increase its potential to 8 BOPD and 66 BWPD. The combined daily oil production from the two zones before commingling will not exceed the limit of 30 BOPD specified in Section 1, Paragraph (a), Part (1). Total combined water production before commingling will exceed the aforementioned limit. Pumping equipment presently on location in the Langlie Mattix Queen has a potential of producing 97 barrels of fluid per day from 5410'. Thus, upon approval to downhole commingle, both zones will be effectively pumped down without any loss in total production due to cross-flow. (See attached analysis program.).

4. Attached is a production decline curve for both oil zones. The Blinebry zone exhibited a constant rate of decline until the recompletion into the Langlie Mattix Queen in June, 1983. Due to this recent completion, a constant decline rate for the Queen zone cannot be determined at this time. Future production from the Queen is anticipated to remain at current levels.

5. The Queen zone maintains a bottom hole pressure of 400 psi. A bottomhole pressure for the Blinebry is estimated to be 500 psi.

6. Getty Oil Company has received approval to surface commingle the two wellstreams on the Riggs Lease, (June 27, 1983), and has since encountered no problems in fluid incompatibility. By utilizing water analyses for both wellstreams, a computer compatibility program indicated no scaling tendencies in the subject well, (see attached computer analysis.). Therefore, no permanent reservoir damage should result from downhole commingling these two zones.

7. Both oil streams are sour crude and will not experience a loss in value upon downhole commingling.

8. Gulf Oil Company has been notified in writing of this proposed commingling.

Commingling downhole, as opposed to surface commingling, will yield significant reductions in equipment and operating costs. By utilizing pumping equipment with sufficient capacity to pump both zones, we request special consideration as per Rule 303-C for this Getty well.

Sincerely yours,

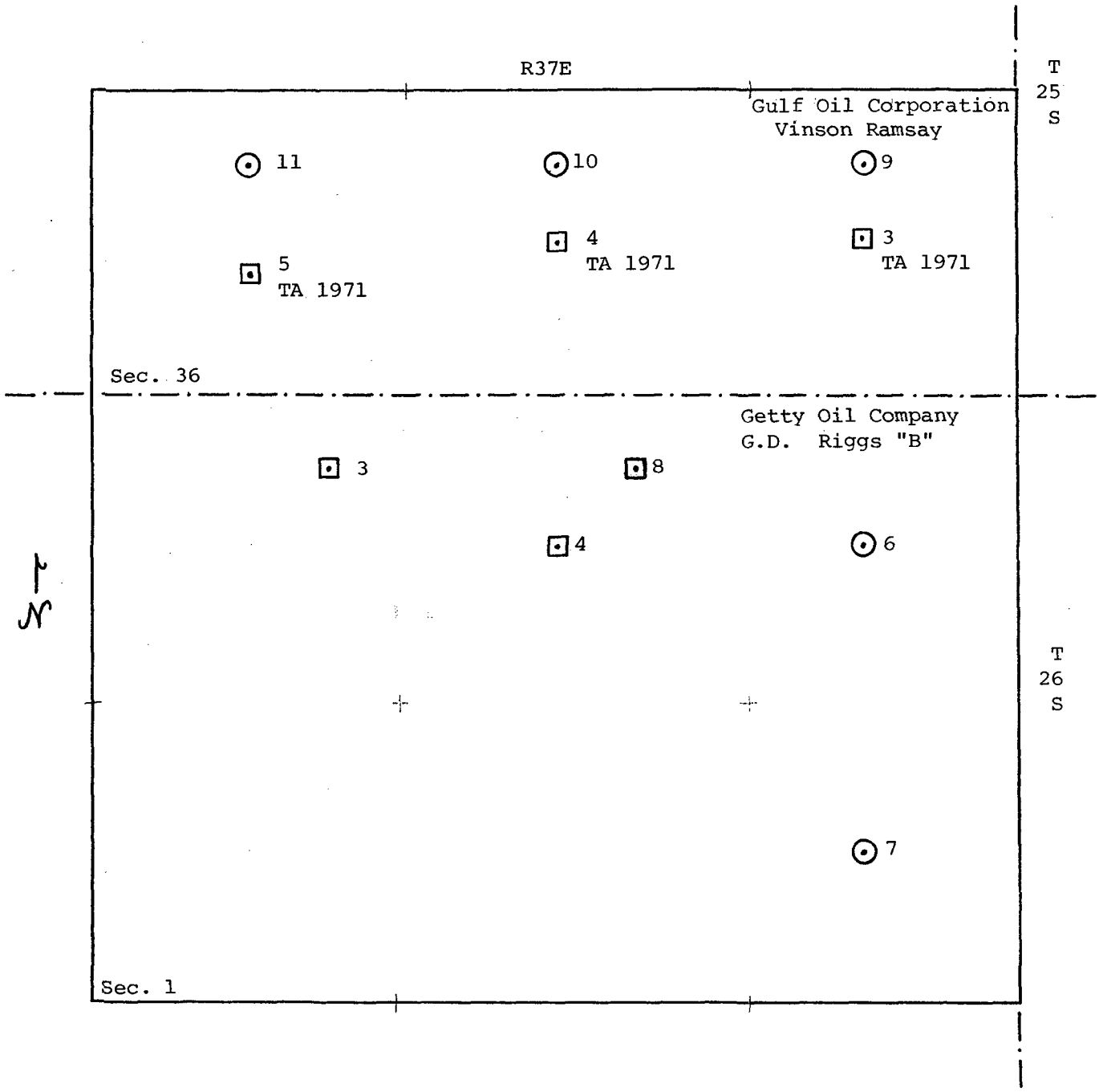
GETTY OIL COMPANY

Dale R. Crockett
Area Superintendent

BDB/ly

cc: NMOCD/Santa Fe (2)
NMOCD/Hobbs
BLM/Roswell
File

Getty Oil Company
G.D. Riggs "B" Lease
Lea County, N.M.



Langlie Mattix Queen Well

Justis Blinebry Well

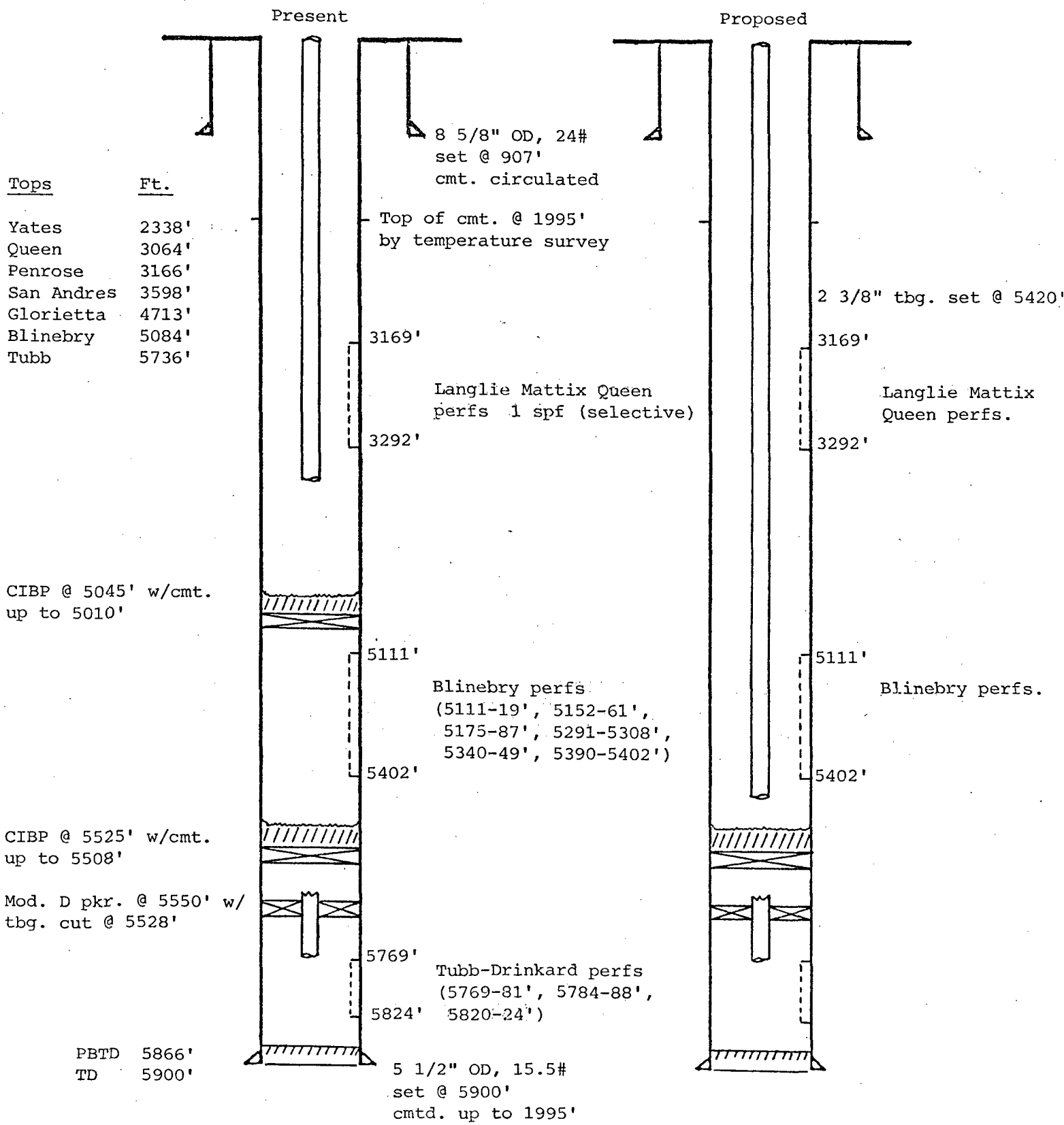
Section Line
40 acre spacing

G. D. Riggs "B" No. 8

Well Diagram

Justis Field

(All measurements taken from 3030' G.L.)



G. D. Riggs "B" Well No. 8

Well History

10-62. Well was completed to a total depth of 5900'. The Tubb zone was perforated with 2 spf @ 5769-81', 5784-88', and 5820-24'; followed by a treatment of 1000 gals. mud acid and 4000 gals. HCL acid. The zone potentialed on pump for 26 BOPD and 1 BWPD.

The Blinebry zone was also perforated with 2 spf at 5111-19', 5152-61', 5175-87', 5291-5308', 5340-49', and 5390-5402'. Subsequent treatment to the perfs. was 500 gals. of mud acid, 24,000 gals. of refined oil, and 44,000 lbs. of 20/40 sand. The zone potentialed for a natural flow of 80 BOPD and 35 BWPD on a 10/64" choke.

11-63. Pumping equipment was installed to the Blinebry zone.

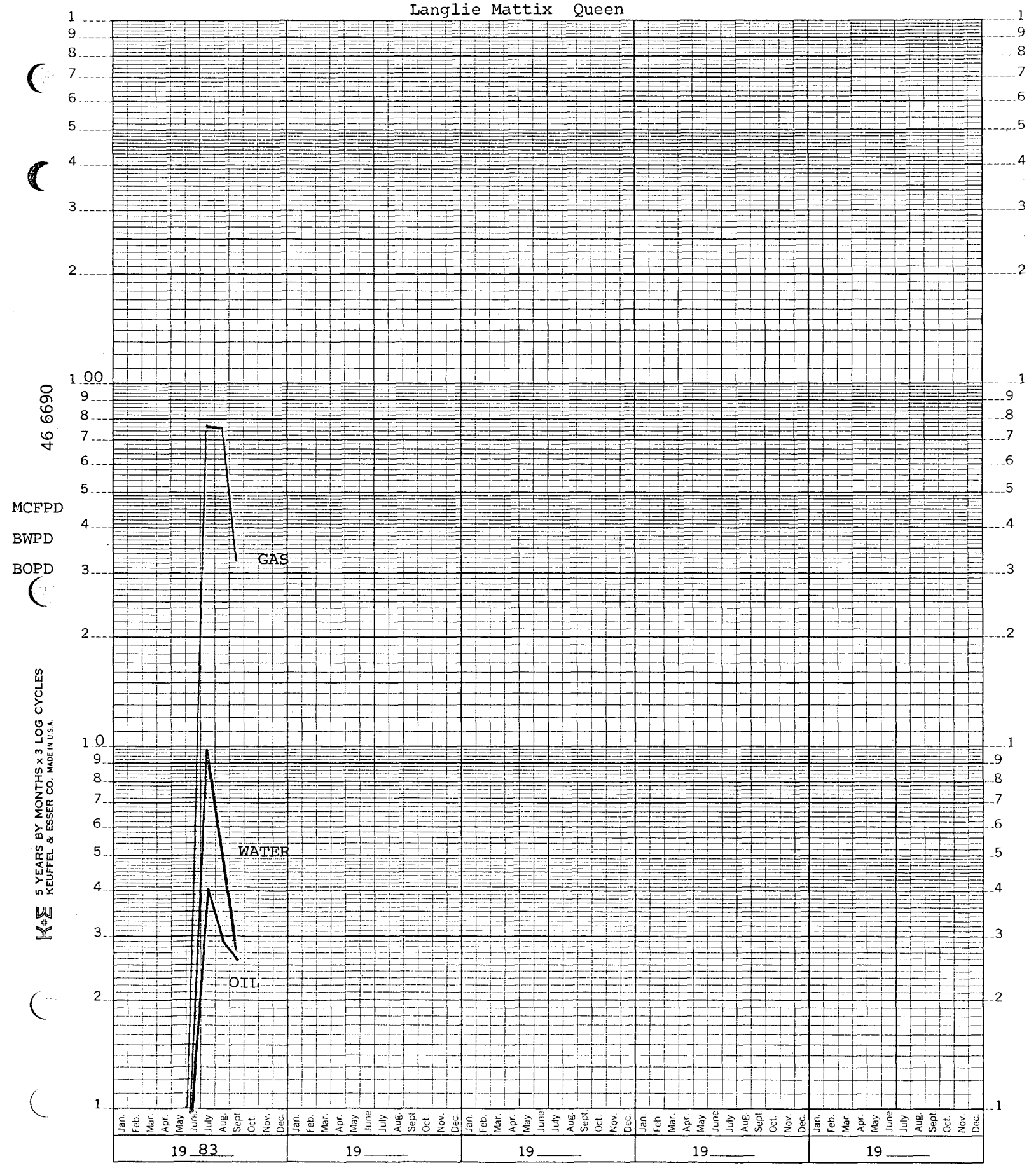
2-66. Plugged and abandoned the Tubb zone after production had declined to 2 BOPD and 7 BWPD.

6-83. Temporarily abandoned the Blinebry zone and recompleted to the Langlie Mattix Queen zone with perforations of 1 spf at 3169-3292'. The perfs. were treated with 2500 gals. of 15% HCL acid and with a foam frac of 9450 gals. of nitrogen and 70,000 lbs. 12/20 sand. The zone potentialed for 2 BOPD, 18 BWPD, and 18 MCFPD.

BDB/sc

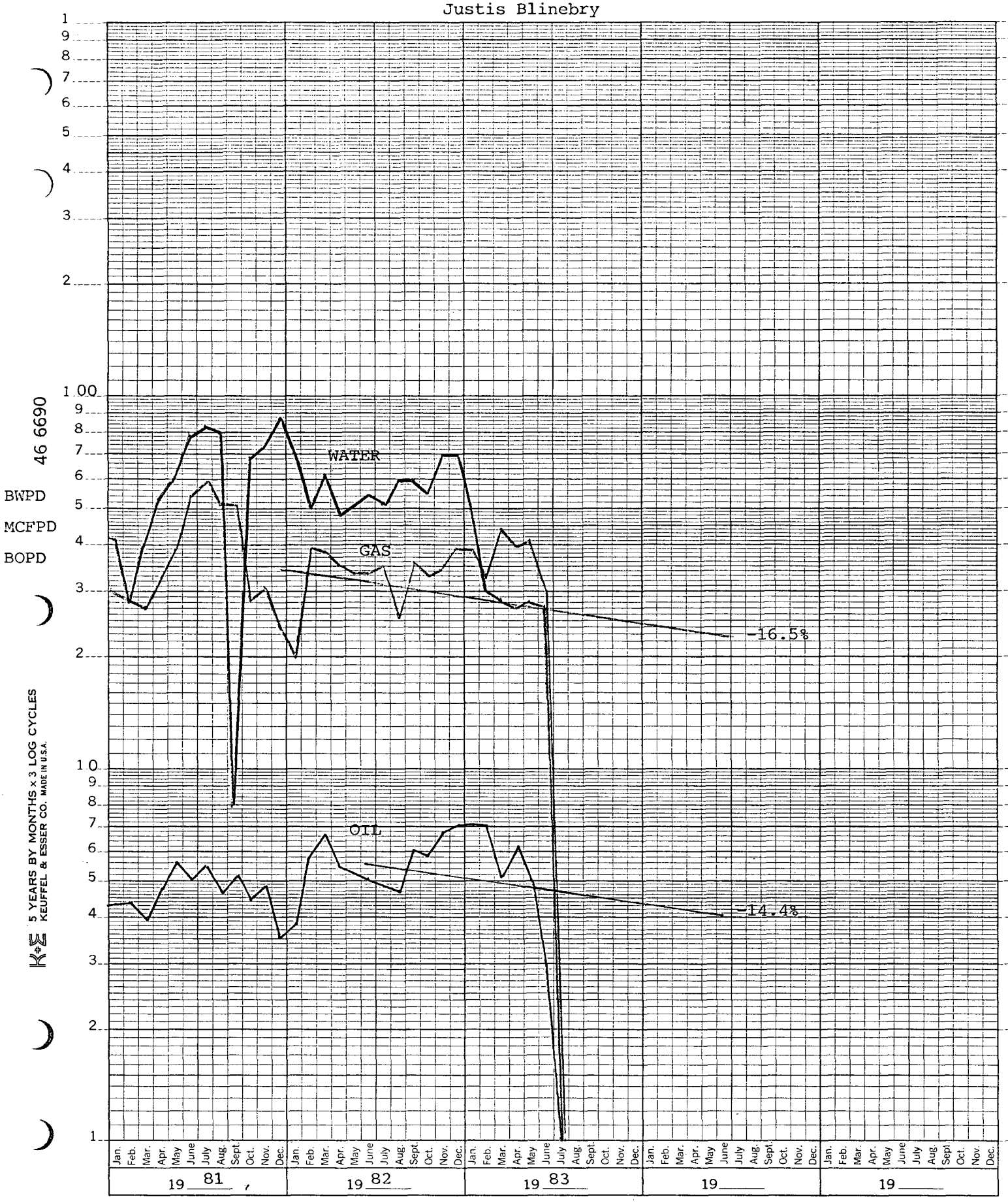
G. D. Riggs "B" No. 8

Langlie Mattix Queen



G. D. Riggs "B" No. 8

Justis Blinebry



NEW MEXICO OIL CONSERVATION COMMISSION

GAS-OIL RATIO TESTS

C-116
Revised 1-1-65

Operator	Pool	County
Getty Oil Company	Langlie Mattix Queen	Lea

Address	TYPE OF TEST - (X)	Scheduled	Completion	Special
P.O. Box 730 Hobbs, New Mexico 88240		☐	☐	☒

LEASE NAME	WELL NO.	LOCATION				DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOW-ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST				GAS - OIL RATIO CU.FT/BBL
		U	S	T	R							WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	
G.D. Riggs "B"	8	B	1	26S	37E	10/20/83	P	-	400	7	24	2	38	2	17	8500

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

Gas volumes must be reported in MCF measured at a pressure base of 15.025 psia and a temperature of 60° F. Specific gravity base will be 0.60.

Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

Robert Parker
(Signature)

Area Superintendent

NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS

C-116
Revised 1-1-65

Operator	Pool	County
Getty Oil Company	Justis Blinebry	Lea

Address	TYPE OF TEST - (X)	Scheduled	Completion	Special
P.O. Box 730 Hobbs, New Mexico 88240		☐	☐	☒ XX

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS - OIL RATIO CU.FT/BBL
G.D. Riggs "B"	8	B	1	26S	37E	5/12/83	P	-	-	-	24	40	36	4	23	5750

No well will be assigned an allowable greater than the amount of oil produced on the official test.

During gas-oil ratio test, each well shall be produced at a rate not exceeding the top unit allowable for the pool in which well is located by more than 25 percent. Operator is encouraged to take advantage of this 25 percent tolerance in order that well can be assigned increased allowables when authorized by the Commission.

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Report casing pressure in lieu of tubing pressure for any well producing through casing.

Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

I hereby certify that the above information is true and complete to the best of my knowledge and belief.

Peter J. Barker
(Signature)

Area Superintendent

TABLE 1
WATER ANALYSIS

LOCATION: JUSTIS BLINEBRY, WELL NO. 8 WELL NO.:

DATE SAMPLED: NOVEMBER 19, 1982 SAMPLE POINT:

CONSTITUENTS	PPM	MEQ PER LITER
SODIUM + POTASSIUM (NA+K)	52880	2299.222
CALCIUM (CA)	4760	237.524
MAGNESIUM (MG)	1366	112.367
BARIUM (BA)	0	0.0
IRON (FE)	0	0.0
CARBONATE (CO3)	0	0.0
BICARBONATE (HCO3)	567	9.293
SULFATE (SO4)	2330	48.534
CHLORIDE (CL)	92000	2595.320
SILICA (SIO2)	0	0.0
STRONTIUM (SR)	0	0.0
TOTAL DISSOLVED SOLIDS	153903	
PH AT 20 DEG C	6.45	
TOTAL ALKALINITY	0 PPM AS CACO3	
TOTAL HARDNESS	17508 PPM AS CACO3	

TABLE 2
WATER ANALYSIS

LOCATION: LANGLIE MATTIX QUEEN, WELL NO. 3 WELL NO.:

DATE SAMPLED: APRIL 15, 1983 SAMPLE POINT:

CONSTITUENTS	PPM	MEQ PER LITER
SODIUM + POTASSIUM (NA+K)	34030	1479.624
CALCIUM (CA)	1120	55.888
MAGNESIUM (MG)	5685	467.648
BARIUM (BA)	0	0.0
IRON (FE)	12	0.215
CARBONATE (CO3)	0	0.0
BICARBONATE (HCO3)	1598	26.191
SULFATE (SO4)	4900	102.067
CHLORIDE (CL)	66500	1875.965
SILICA (SIO2)	0	0.0
STRONTIUM (SR)	0	0.0
TOTAL DISSOLVED SOLIDS	113845	
PH AT 20 DEG C	7.60	
TOTAL ALKALINITY	0 PPM AS CACO3	
TOTAL HARDNESS	26196 PPM AS CACO3	

TABLE 3
WATER ANALYSIS

CALCULATED

MIXTURE OF 90 PERCENT JB-8	10 PERCENT LM-3	
CONSTITUENTS	PPM	MEQ PER LITER
SODIUM + POTASSIUM (NA+K)	50995	2217.263
CALCIUM (CA)	4396	219.360
MAGNESIUM (MG)	1798	147.903
BARIUM (BA)	0	0.0
IRON (FE)	1	0.018
CARBONATE (CO3)	0	0.0
BICARBONATE (HCO3)	670	10.981
SULFATE (SO4)	2587	53.887
CHLORIDE (CL)	89450	2523.384
SILICA (SIO2)	0	0.0
STRONTIUM (SR)	0	0.0
TOTAL DISSOLVED SOLIDS	149897	
PH AT 20 DEG C	6.57	
TOTAL ALKALINITY	0 PPM AS CACO3	
TOTAL HARDNESS	18377 PPM AS CACO3	

TABLE 4
WATER ANALYSIS

CALCULATED

MIXTURE OF 80 PERCENT JB-8 20 PERCENT LM-3

CONSTITUENTS	PPM	MEQ PER LITER
SODIUM + POTASSIUM (NA+K)	49110	2135.303
CALCIUM (CA)	4032	201.197
MAGNESIUM (MG)	2230	183.440
BARIUM (BA)	0	0.0
IRON (FE)	2	0.036
CARBONATE (CO3)	0	0.0
BICARBONATE (HCO3)	773	12.669
SULFATE (SO4)	2844	59.241
CHLORIDE (CL)	86900	2451.449
SILICA (SIO2)	0	0.0
STRONTIUM (SR)	0	0.0
TOTAL DISSOLVED SOLIDS	145891	
PH AT 20 DEG C	6.68	
TOTAL ALKALINITY	0 PPM AS CACO3	
TOTAL HARDNESS	19246 PPM AS CACO3	

CALCULATED

MIXTURE OF 70 PERCENT JB-8 30 PERCENT LM-3

CONSTITUENTS	PPM	MEQ PER LITER
SODIUM + POTASSIUM (NA+K)	47225	2053.343
CALCIUM (CA)	3668	183.033
MAGNESIUM (MG)	2662	218.976
BARIUM (BA)	0	0.0
IRON (FE)	4	0.072
CARBONATE (CO3)	0	0.0
BICARBONATE (HCO3)	876	14.358
SULFATE (SO4)	3101	64.594
CHLORIDE (CL)	84350	2379.513
SILICA (SIO2)	0	0.0
STRONTIUM (SR)	0	0.0
TOTAL DISSOLVED SOLIDS	141886	
PH AT 20 DEG C	6.80	
TOTAL ALKALINITY	0 PPM AS CACO3	
TOTAL HARDNESS	20115 PPM AS CACO3	

TABLE 6
WATER ANALYSIS

MIXTURE OF 60 PERCENT JB-8	CALCULATED 40 PERCENT LM-3	
CONSTITUENTS	PPM	MEQ PER LITER
SODIUM + POTASSIUM (NA+K)	45340	1971.383
CALCIUM (CA)	3304	164.870
MAGNESIUM (MG)	3094	254.512
BARIUM (BA)	0	0.0
IRON (FE)	5	0.089
CARBONATE (CO3)	0	0.0
BICARBONATE (HCO3)	979	16.046
SULFATE (SO4)	3358	69.947
CHLORIDE (CL)	81800	2307.578
SILICA (SIO2)	0	0.0
STRONTIUM (SR)	0	0.0
TOTAL DISSOLVED SOLIDS	137880	
PH AT 20 DEG C	6.91	
TOTAL ALKALINITY	0 PPM AS CACO3	
TOTAL HARDNESS	20984 PPM AS CACO3	

TABLE 7
WATER ANALYSIS

CALCULATED

MIXTURE OF 50 PERCENT JB-8 50 PERCENT LM-3

CONSTITUENTS	PPM	MEQ PER LITER
SODIUM + POTASSIUM (NA+K)	43455	1889.423
CALCIUM (CA)	2940	146.706
MAGNESIUM (MG)	3526	290.049
BARIUM (BA)	0	0.0
IRON (FE)	6	0.107
CARBONATE (CO3)	0	0.0
BICARBONATE (HCO3)	1083	17.750
SULFATE (SO4)	3615	75.300
CHLORIDE (CL)	79250	2235.642
SILICA (SIO2)	0	0.0
STRONTIUM (SR)	0	0.0
TOTAL DISSOLVED SOLIDS	133875	
PH AT 20 DEG C	7.03	
TOTAL ALKALINITY	0 PPM AS CACO3	
TOTAL HARDNESS	21854 PPM AS CACO3	

TABLE 8
WATER ANALYSIS

CALCULATED

MIXTURE OF 40 PERCENT JB-8 60 PERCENT LM-3

CONSTITUENTS	PPM	MEQ PER LITER
SODIUM + POTASSIUM (NA+K)	41570	1807.464
CALCIUM (CA)	2576	128.542
MAGNESIUM (MG)	3957	325.503
BARIUM (BA)	0	0.0
IRON (FE)	7	0.125
CARBONATE (CO3)	0	0.0
BICARBONATE (HCO3)	1186	19.439
SULFATE (SO4)	3872	80.654
CHLORIDE (CL)	76700	2163.707
SILICA (SIO2)	0	0.0
STRONTIUM (SR)	0	0.0
TOTAL DISSOLVED SOLIDS	129868	
PH AT 20 DEG C	7.14	
TOTAL ALKALINITY	0 PPM AS CACO3	
TOTAL HARDNESS	22719 PPM AS CACO3	

TABLE 9
WATER ANALYSIS

CALCULATED

MIXTURE OF 30 PERCENT JB-8 70 PERCENT LM-3

CONSTITUENTS	PPM	MEQ PER LITER
SODIUM + POTASSIUM (NA+K)	39685	1725.504
CALCIUM (CA)	2212	110.379
MAGNESIUM (MG)	4389	361.039
BARIUM (BA)	0	0.0
IRON (FE)	8	0.143
CARBONATE (CO3)	0	0.0
BICARBONATE (HCO3)	1289	21.127
SULFATE (SO4)	4129	86.007
CHLORIDE (CL)	74150	2091.771
SILICA (SIO2)	0	0.0
STRONTIUM (SR)	0	0.0
TOTAL DISSOLVED SOLIDS	125862	
PH AT 20 DEG C	7.26	
TOTAL ALKALINITY	0 PPM AS CACO3	
TOTAL HARDNESS	23588 PPM AS CACO3	

TABLE 10
WATER ANALYSIS

MIXTURE OF 20 PERCENT JB-8	CALCULATED 80 PERCENT LM-3	
CONSTITUENTS	PPM	MEQ PER LITER
SODIUM + POTASSIUM (NA+K)	37800	1643.544
CALCIUM (CA)	1848	92.215
MAGNESIUM (MG)	4821	396.575
BARIUM (BA)	0	0.0
IRON (FE)	10	0.179
CARBONATE (CO3)	0	0.0
BICARBONATE (HCO3)	1392	22.815
SULFATE (SO4)	4396	91.360
CHLORIDE (CL)	71600	2019.836
SILICA (SIO2)	0	0.0
STRONTIUM (SR)	0	0.0
TOTAL DISSOLVED SOLIDS	121857	
PH AT 20 DEG C	7.37	
TOTAL ALKALINITY	0 PPM AS CACO3	
TOTAL HARDNESS	24457 PPM AS CACO3	

TABLE 11
WATER ANALYSIS

CALCULATED

MIXTURE OF 10 PERCENT JB-8 90 PERCENT LM-3

CONSTITUENTS	PPM	MEQ PER LITER
SODIUM + POTASSIUM (NA+K)	35915	1561.584
CALCIUM (CA)	1484	74.052
MAGNESIUM (MG)	5253	432.112
BARIUM (BA)	0	0.0
IRON (FE)	11	0.197
CARBONATE (CO3)	0	0.0
BICARBONATE (HCO3)	1495	24.503
SULFATE (SO4)	4643	96.714
CHLORIDE (CL)	69050	1947.900
SILICA (SIO2)	0	0.0
STRONTIUM (SR)	0	0.0
TOTAL DISSOLVED SOLIDS	117851	
PH AT 20 DEG C	7.49	
TOTAL ALKALINITY	0 PPM AS CACO3	
TOTAL HARDNESS	25326 PPM AS CACO3	

TABLE 12
WATER ANALYSIS

MEASURED PH AND TOTAL ALKALINITY VALUES
FOR MIXTURES OF JB-8 AND LM-3 WATERS

PERCENT COMPOSITION (VOLUME)		PH AT	TOTAL ALKALINITY
JB-8	LM-3	20.0 DEG C	(AS PPM CACO3)
100	0	6.45	0
90	10	6.57	0
80	20	6.68	0
70	30	6.80	0
60	40	6.91	0
50	50	7.03	0
40	60	7.14	0
30	70	7.26	0
20	80	7.37	0
10	90	7.49	0
0	100	7.60	0

FIELD NAME: LANGLIE MATTIX QUEEN - JUSTIS BLINEBRY

LEASE NAME: G. D. RIGGS "B" WELL NUMBER: 8

*** DESIGN REPORT ***

INPUT:

PUMP DEPTH	5410.	FLUID LIFT	5010.	TUBING SIZE	2.375	ANCHORED?	NO	BPD REQUIRED	68.		
API OIL GRAVITY	37.	% WATER CUT	85.	FLD SPEC GRAV	0.955	PUMP BORE	1.500	POLISHED ROD TRVL	54.		
STROKES PER MIN	10.0	SYNCH SPEED?	NO	3-WAY DESIGN	WITHOUT SINKER BARS	TYPE:	****				

RESULTS:

BEST STRING DESIGN USE GRADE C SUCKER RODS

SIZE	PERCENT	FOOTAGE					
8	27.	1461.	WEIGHT OF STRING	11535.2 LBS	DYNAMIC ROD LOAD	12418.7 LBS	
7	27.	1461.	FLUID LOAD	2751.1 LBS	DYNAMIC FLD LOAD	2961.8 LBS	
6	46.	2489.	STATIC LOAD	14286.3 LBS	PK. POL ROD LOAD	15380.6 LBS	
			ACCELERATION FACTOR	1.077	MAX UNIT STRESS	19583.2 PSI	
SINKER BARS	****		MINIMUM LOAD	7883.2 LBS	COUNTERBAL REQD	12911. LBS	
USE:	0.	0.	LOAD RANGE	7497.4 LBS	PEAK TORQUE	95906. IN-LBS	
**********			POLISHED ROD HP	5.4	INPUT HP	11.0	
CORRECTED FOR OVERTRAVEL		57.5	ROD-TUBING STRETCH	20.5 IN	NET PLUNGER TRAVEL	37.0 IN	

PRODUCTION AT 100% V.E. 96.8

PUMP PRODUCTION VOLUMETRIC EF 70.%

TABLE 13
WATER ANALYSIS

CALCIUM CARBONATE STABILITY INDEX
JB-8 - LM-3 WATERS
SI = PH-PCA-PALK-K

COMPOSITION (PERCENT)	MU	K 20 DEG C	K 20 DEG C	CA PPM	PCA	HCO3 PPM	PALK	PH	SI 20 DEG C	SI 20 DEG C
100 JB-8 - 0 LM-3	2.8504	3.22	3.22	4760	0.93	567	2.03	6.45	0.27	0.27
90 JB-8 - 10 LM-3	2.7970	3.24	3.24	4396	0.96	670	1.96	6.57	0.41	0.41
80 JB-8 - 20 LM-3	2.7436	3.25	3.25	4032	1.00	773	1.90	6.68	0.53	0.53
70 JB-8 - 30 LM-3	2.6902	3.26	3.26	3668	1.04	876	1.84	6.80	0.66	0.66
60 JB-8 - 40 LM-3	2.6368	3.27	3.27	3304	1.08	979	1.79	6.91	0.76	0.76
50 JB-8 - 50 LM-3	2.5835	3.28	3.28	2940	1.13	1083	1.75	7.03	0.86	0.86
40 JB-8 - 60 LM-3	2.5300	3.30	3.30	2576	1.19	1186	1.71	7.14	0.93	0.93
30 JB-8 - 70 LM-3	2.4766	3.32	3.32	2212	1.26	1289	1.68	7.26	1.00	1.00
20 JB-8 - 80 LM-3	2.4233	3.34	3.34	1848	1.34	1392	1.64	7.37	1.05	1.05
10 JB-8 - 90 LM-3	2.3699	3.36	3.36	1484	1.43	1495	1.61	7.49	1.09	1.09
0 JB-8 - 100 LM-3	2.3165	3.37	3.37	1120	1.55	1598	1.58	7.60	1.09	1.09

TABLE 14
WATER ANALYSIS

CALCIUM SULFATE STABILITY
JB-8 - LM-3 WATERS
KSPA = (CA MOLE/LITER) (SO4 MOLE/LITER)

COMPOSITION	CA MOL/L	SO4 MOL/L	KSPA	CHLORIDE PPM	KSPC 20 DEG C	REMARKS	PPT-D CASO4 PPM
100 JB-8 - 0 LM-3	0.11876	0.02426	0.0028807	92000	0.0029976	NO CASO4 DEPOSITION	
90 JB-8 - 10 LM-3	0.10968	0.02693	0.0029538	89450	0.0030107	NO CASO4 DEPOSITION	
80 JB-8 - 20 LM-3	0.10060	0.02961	0.0029784	86900	0.0030209	NO CASO4 DEPOSITION	
70 JB-8 - 30 LM-3	0.09152	0.03228	0.0029543	84350	0.0030274	NO CASO4 DEPOSITION	
60 JB-8 - 40 LM-3	0.08244	0.03495	0.0028817	81800	0.0030298	NO CASO4 DEPOSITION	
50 JB-8 - 50 LM-3	0.07335	0.03763	0.0027605	79250	0.0030273	NO CASO4 DEPOSITION	
40 JB-8 - 60 LM-3	0.06427	0.04031	0.0025907	76700	0.0030193	NO CASO4 DEPOSITION	
30 JB-8 - 70 LM-3	0.05519	0.04298	0.0023722	74150	0.0030052	NO CASO4 DEPOSITION	
20 JB-8 - 80 LM-3	0.04611	0.04566	0.0021052	71600	0.0029844	NO CASO4 DEPOSITION	
10 JB-8 - 90 LM-3	0.03703	0.04833	0.0017896	69050	0.0029566	NO CASO4 DEPOSITION	
0 JB-8 - 100 LM-3	0.02794	0.05101	0.0014254	66500	0.0029216	NO CASO4 DEPOSITION	

TABLE 15
WATER ANALYSIS

BARIUM SULFATE STABILITY
JB-8 - LM-3 WATERS
KSP = (BA MOL/L) (SO4 MOL/L)

COMPOSITION	BA MOL/L	SO4 MOL/L	KSP(X10-3)	CHLORIDE PPM	KSPC(X10-9) 20DEG C	REMARKS	PPT-D BASO4 PPM
100 JB-8 - 0 LM-3	0.0	0.02426	0.0	92000	16.84868	NO BASO4 DEPOSITION	
90 JB-8 - 10 LM-3	0.0	0.02693	0.0	89450	16.50607	NO BASO4 DEPOSITION	
80 JB-8 - 20 LM-3	0.0	0.02961	0.0	86900	16.16209	NO BASO4 DEPOSITION	
70 JB-8 - 30 LM-3	0.0	0.03228	0.0	84350	15.81623	NO BASO4 DEPOSITION	
60 JB-8 - 40 LM-3	0.0	0.03496	0.0	81800	15.46731	NO BASO4 DEPOSITION	
50 JB-8 - 50 LM-3	0.0	0.03763	0.0	79250	15.11473	NO BASO4 DEPOSITION	
40 JB-8 - 60 LM-3	0.0	0.04031	0.0	76700	14.75767	NO BASO4 DEPOSITION	
30 JB-8 - 70 LM-3	0.0	0.04298	0.0	74150	14.40194	NO BASO4 DEPOSITION	
20 JB-8 - 80 LM-3	0.0	0.04566	0.0	71600	14.02879	NO BASO4 DEPOSITION	
10 JB-8 - 90 LM-3	0.0	0.04833	0.0	69050	13.64789	NO BASO4 DEPOSITION	
0 JB-8 - 100 LM-3	0.0	0.05101	0.0	66500	13.22797	NO BASO4 DEPOSITION	

TABLE 17
WATER ANALYSIS

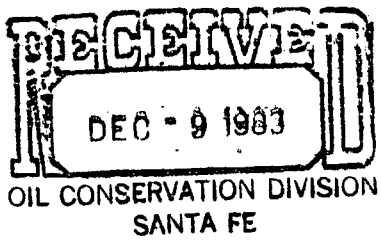
STRONTIUM SULFATE STABILITY
JB-8 - LM-3 WATERS
KSP = (SR MOL/L) (SO4 MOL/L)

COMPOSITION	SR MOL/L	SO4 MOL/L	KSP(X10-3)	CHLORIDE PPM	KSPC(X10-7) 25DEG C	REMARKS	PPT-D SRSO4 PPM
100 JB-8 - 0 LM-3	0.0	0.02426	0.0	92000	157.33934	NO SRSO4 DEPOSITION	
90 JB-8 - 10 LM-3	0.0	0.02693	0.0	89450	186.10477	NO SRSO4 DEPOSITION	
80 JB-8 - 20 LM-3	0.0	0.02961	0.0	86900	184.84308	NO SRSO4 DEPOSITION	
70 JB-8 - 30 LM-3	0.0	0.03228	0.0	84350	162.35010	NO SRSO4 DEPOSITION	
60 JB-8 - 40 LM-3	0.0	0.03496	0.0	81800	163.79344	NO SRSO4 DEPOSITION	
50 JB-8 - 50 LM-3	0.0	0.03763	0.0	79250	165.16202	NO SRSO4 DEPOSITION	
40 JB-8 - 60 LM-3	0.0	0.04031	0.0	76700	166.44279	NO SRSO4 DEPOSITION	
30 JB-8 - 70 LM-3	0.0	0.04298	0.0	74150	167.62236	NO SRSO4 DEPOSITION	
20 JB-8 - 80 LM-3	0.0	0.04566	0.0	71600	168.68510	NO SRSO4 DEPOSITION	
10 JB-8 - 90 LM-3	0.0	0.04833	0.0	69050	169.61330	NO SRSO4 DEPOSITION	
0 JB-8 - 100 LM-3	0.0	0.05101	0.0	66500	170.38678	NO SRSO4 DEPOSITION	

UQS0009 - END OF DATA SET

UQS0016 - END OF JOB

OIL CONSERVATION DIVISION
DISTRICT I



OIL CONSERVATION DIVISION
P. O. BOX 2088
SANTA FE, NEW MEXICO 87501

DATE December 6, 1983

RE: Proposed MC
Proposed DHC X
Proposed NSL
Proposed NSP
Proposed SWD
Proposed WFX
Proposed PMX

Gentlemen:

I have examined the application for the:

Getty Oil Company	G. D. Riggs "B"	No.8-B	1-26-37
Operator	Lease and Well No.		Unit, S - T - R

and my recommendations are as follows:

O.K.------J.S.

Yours very truly,

/mc