DWL-635-A

WELL FILE
TYRRELL #1-17

DOWELL DIVISION OF DOW CHEMICAL U.S.A.

LABORATORY REPORT

Gulf Oil
Finney County, Kansas

Submitted By: Steve Kardokus
OKC AO.

DATE: 7-20-83

LAB LOCATION: OKC Lab

TYPE OF SAMPLE: Oil/Water

LAB NO. 8133

S. NO.

DESCRIPTION: Tyrrell #1-17
Sec. 17-22S-34W

AUTHOR:

Oil Analysis

API Gravity at 60°F	=	27.6°
Specific Gravity	=	0.889

$°API = \frac{141.5}{So} - 131.5$

°API = 10

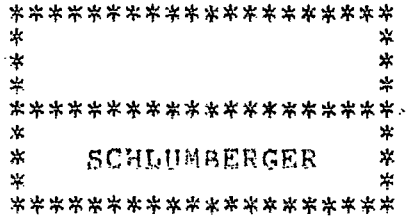
Kay K. Bjornen pc
Kay K. Bjornen
Chemist

pac

REPEAT FORMATION TESTER
FLUID SAMPLE NO. 2
4171' – LANSING-KANSAS CITY
RECOVERED 8900 cc WATER (MUD FILTRATE)
300 cc OIL

DISTRIBUTION: ~~Steve Kardokus, OKC AO - Orig + 1cc~~
1cc - Steve Lemp. Ulysses, Ks.
1cc - Bob Facer, OKC AO
1cc - OKC Lab
1cc - Max Oliver, OKC AO
1cc - Debby O'Donnell OKC AO

ANALYST: LOG ANALYST 17-JUL-83 21:52:25 PROGRAM: PRESSA 002E01



- VOLAN-PERM COMPUTER PROCESSED INTERPRETATION

COMPANY : GULF OIL EXPLORATION
WELL : TYRRELL #1-17
FIELD : AMAZON DITCH
COUNTRY : USA
REFERENCE: 50222
LOGGED : 29-JUN-83

WELL FILE

ANALYST: LOG ANALYST 17-JUL-83 21:52:25 PROGRAM: PRESSA 002E01

SCHLUMBERGER

VOLAN-PERM COMPUTER PROCESSED INTERPRETATION

COMPANY : GULF OIL EXPLORATION
WELL : TYRRELL #1-17
FIELD : AMAZON DITCH
COUNTRY : USA
REFERENCE: 50222
LOGGED : 29-JUN-83

Schlumberger

DATA DISCRIMINATION

VOLUME SHALE GREATER THAN 60%

PERMEABILITY LESS THAN .05 MD

DEPTH FT	NAT. SAT. PU	POR. EFF. PU	POR. 2ND PU	CUM. EFF. POR. FT	CUM. HC-FT FT	PERM. INTRIN MD	PERM. GAS MD	PERM. OIL MD	PERM. WATER MD	CUM. PERM. GAS FT	CUM. PERM. OIL FT	CUM. PERM. WATER FT	CLEAN GRAIN DENS G/C3	VOL SH PU
3515	59	13.		49.9	13.3	.4	0	.2	0	0	10587.	52.	2.68	43
3524	100	12.		49.1	13.3	.3	0	0	.3	0	10587.	52.	2.71	33
3525	99	13.		48.8	13.3	.3	0	0	.8	0	10587.	51.	2.70	30
3526	97	14.		48.8	13.3	2.5	0	0	2.1	0	10587.	50.	2.70	22
3527	100	11.		49.7	13.3	.2	0	0	.2	0	10587.	49.	2.70	31
3587	47	13.		45.9	13.3	1.0	0	.5	0	0	10587.	48.	2.70	3
3597	73	11.		45.5	13.2	4.5	0	.1	0	0	10586.	48.	2.70	12
3598	63	14.		45.3	13.2	4.9	0	1.9	.1	0	10586.	48.	2.71	9
3599	66	13.		45.2	13.2	5.3	0	.2	.1	0	10585.	48.	2.69	7
3600	58	15.		45.1	13.1	11.2	0	2.6	.2	0	10584.	48.	2.70	9
3601	55	16.		44.9	13.0	15.5	0	4.2	.2	0	10581.	48.	2.69	10
3602	55	15.		44.8	13.0	10.1	0	2.9	.1	0	10577.	48.	2.71	11
3603	70	11.		44.6	12.9	.8	0	.1	0	0	10575.	48.	2.69	12
3610	100	12.		44.1	12.9	.3	0	0	.3	0	10575.	48.	2.70	36
3611	100	13.		44.0	12.9	.6	0	0	.6	0	10575.	47.	2.70	34
3612	100	14.		43.8	12.9	2.4	0	0	2.4	0	10575.	46.	2.71	21
3613	100	12.		43.7	12.9	1.7	0	0	1.7	0	10575.	43.	2.70	10
3614	100	10.		43.6	12.9	.2	0	0	.2	0	10575.	42.	2.71	11
3615	100	10.		43.5	12.9	.3	0	0	.3	0	10575.	42.	2.69	13
3616	100	12.		43.4	12.9	.8	0	0	.8	0	10575.	41.	2.69	14
3617	100	12.		43.3	12.9	.5	0	0	.5	0	10575.	40.	2.71	22
3618	100	12.		43.1	12.9	.5	0	0	.5	0	10575.	40.	2.71	21
3619	100	10.		43.0	12.9	.3	0	0	.3	0	10575.	39.	2.69	14
3620	100	9.		42.9	12.9	.1	0	0	.1	0	10575.	39.	2.69	15
3627	100	12.		42.4	12.9	1.2	0	0	1.2	0	10575.	39.	2.70	1
3628	99	12.		42.3	12.9	.7	0	0	.6	0	10575.	37.	2.69	23
3629	96	12.		42.1	12.9	.7	0	0	.5	0	10575.	36.	2.70	22
3630	100	11.		42.0	12.9	.1	0	0	.1	0	10575.	36.	2.70	27
3682	81	10.		39.3	12.9	.3	0	0	0	0	10575.	36.	2.69	6
3683	87	9.		39.2	12.9	.2	0	0	.1	0	10575.	36.	2.70	6
3684	92	10.		39.1	12.9	.7	0	0	.3	0	10575.	36.	2.70	3
3685	83	11.		39.0	12.8	1.5	0	.1	.3	0	10575.	35.	2.70	2
3686	81	11.		38.9	12.8	.7	0	0	.1	0	10575.	35.	2.70	5
3687	81	10.		38.8	12.8	.4	0	0	0	0	10575.	35.	2.69	6
3688	74	10.		38.7	12.8	.6	0	.1	0	0	10575.	35.	2.70	4
3700	74	9.		37.9	12.8	.1	0	0	0	0	10575.	35.	2.70	21

DEPTH FT	WAT. SAT. PU	POR. EFF. PU	POR. 2ND PU	CUM. EFF. POR. FT	CUM. HC-FT FT	PERM. INTRIN MD	PERM. GAS MD	PERM. OIL MD	PERM. WATER MD	CUM. PERM. GAS FT	CUM. PERM. OIL FT	CUM. PERM. WATER FT	CLEAN GRAIN DENS G/C3	VOL SH PU
3701	71	10.		37.8	12.7	.1	0	0	0	0	10575.	35.	2.70	19
3702	68	10.		37.7	12.7	.1	0	0	0	0	10575.	35.	2.71	20
3703	62	10.		37.6	12.7	.2	0	.1	0	0	10575.	35.	2.70	24
3718	91	8.		36.6	12.6	.1	0	0	0	0	10575.	35.	2.70	4
3719	62	13.		36.5	12.6	.1	0	.1	0	0	10575.	35.	2.71	24
3720	66	13.		36.1	12.5	.1	0	.2	0	0	10573.	35.	2.70	24
3721	65	14.		36.2	12.5	.1	0	.2	0	0	10572.	35.	2.70	24
3722	64	16.		36.1	12.4	.1	0	.2	0	0	10570.	34.	2.70	24
3723	68	15.		35.9	12.4	.1	0	.2	0	0	10566.	32.	2.70	22
3724	77	14.		35.8	12.3	.1	0	.2	0	0	10564.	31.	2.70	22
3725	89	13.		35.6	12.3	.1	0	.2	0	0	10564.	29.	2.69	21
3726	91	12.		35.5	12.3	.1	0	.2	0	0	10564.	27.	2.69	21
3727	88	12.		35.4	12.3	.1	0	.2	0	0	10564.	25.	2.70	04
3728	100	10.		35.3	12.2	.1	0	.2	0	0	10564.	24.	2.70	4
3732	92	13.		35.0	12.3	.7	0	.3	0	0	10564.	24.	2.71	29
3733	75	15.		34.8	12.2	2.2	0	.2	0	0	10564.	23.	2.69	35
3734	95	14.		34.7	12.2	2.0	0	.5	1.5	0	10563.	23.	2.70	27
3765	64	9.		33.6	12.2	.2	0	.1	0	0	10563.	22.	2.71	3
3766	49	13.		33.5	12.2	2.2	0	.7	0	0	10563.	22.	2.70	2
3767	47	14.		33.3	12.1	12.6	0	.2	0	0	10560.	22.	2.71	1
3768	51	13.		33.2	12.0	2.6	0	.3	0	0	10555.	22.	2.70	1
3769	57	11.		33.1	12.0	.2	0	.3	0	0	10553.	22.	2.71	4
3772	73	9.		32.9	11.9	.3	0	.1	0	0	10553.	22.	2.70	0
3773	59	12.		32.8	11.8	2.3	0	.7	0	0	10553.	22.	2.70	0
3774	63	12.		32.6	11.8	.3	0	.6	0	0	10552.	22.	2.70	0
3775	51	12.		32.5	11.7	2.6	0	.9	0	0	10550.	22.	2.70	0
3776	57	12.		32.4	11.7	2.6	0	.9	0	0	10550.	22.	2.71	0
3777	69	8.		32.3	11.7	.1	0	.9	0	0	10550.	22.	2.69	2
3803	39	11.		31.1	11.6	2.8	0	1.7	0	0	10550.	22.	2.71	7
3804	39	14.		31.0	11.6	2.6	0	2.0	0	0	10547.	22.	2.70	8
3805	39	12.		30.8	11.5	2.1	0	2.6	0	0	10541.	22.	2.71	6
3806	45	10.		30.7	11.5	.1	0	.6	0	0	10539.	22.	2.71	8
3807	61	7.		30.6	11.4	.1	0	.6	0	0	10539.	22.	2.70	14
3857	57	7.		28.7	11.3	.1	0	.1	0	0	10539.	22.	2.70	3
3896	52	10.		27.8	11.2	.7	0	.4	0	0	10539.	22.	2.71	9
3897	37	16.		27.6	11.2	23.8	0	13.7	0	0	10537.	22.	2.70	4
3898	34	18.		27.5	11.1	72.0	0	41.3	0	0	10516.	22.	2.70	4

DEPTH FT	WAT. SAT. PU	POR. EFF. PU	POR. 2ND PU	CUM. EFF. POR. FT	CUM. HC-FT FT	PERM. INTRIN MD	PERM. GAS MD	PERM. OIL MD	PERM. WATER MD	CUM. PERM. GAS FT	CUM. PERM. OIL FT	CUM. PERM. WATER FT	CLEAN GRAIN DENS G/C3	VOL SH PU
3899	41	18.		27.3	11.0	81.7	0	35.9	.2	0	10475.	22.	2.70	3
3900	52	17.		27.1	10.9	37.9	0	10.8	.5	0	10445.	22.	2.70	5
3901	64	15.		27.0	10.8	18.0	0	2.8	.8	0	10437.	21.	2.69	6
3902	71	15.		26.8	10.7	15.5	0	1.4	1.5	0	10435.	21.	2.69	4
3903	64	17.		26.7	10.7	49.0	0	6.7	3.1	0	10433.	19.	2.70	4
3904	56	19.		26.5	10.6	98.3	0	20.0	3.3	0	10423.	15.	2.70	5
3905	55	18.		26.3	10.5	68.3	0	20.7	2.3	0	10401.	12.	2.69	4
3906	57	16.		26.1	10.5	29.0	0	6.7	.6	0	10385.	10.	2.70	[redacted]
3907	57	14.		26.0	10.4	8.0	0	2.3	.1	0	10380.	10.	2.69	[redacted]
3908	66	11.		25.8	10.3	5.6	0	2.2	0	0	10378.	10.	2.69	8
3930	70	9.		24.8	10.3	.2	0	0	0	0	10378.	10.	2.70	7
3931	71	10.		24.7	10.2	.3	0	.1	0	0	10378.	10.	2.70	8
3932	68	11.		24.6	10.2	.9	0	.2	0	0	10378.	10.	2.70	7
3933	71	11.		24.5	10.2	1.9	0	.2	0	0	10378.	10.	2.71	6
3934	72	11.		24.4	10.1	.8	0	.1	0	0	10378.	10.	2.70	6
3935	72	10.		24.3	10.1	.8	0	.1	0	0	10378.	10.	2.70	3
3960	56	8.		23.4	10.1	.2	0	.1	0	0	10378.	10.	2.70	18
3961	46	10.		23.3	10.0	.6	0	.3	0	0	10377.	10.	2.70	17
3962	59	8.		23.2	10.0	.1	0	.1	0	0	10377.	10.	2.70	18
4019	52	11.		21.6	9.9	.4	0	.2	0	0	10377.	10.	2.71	40
4020	38	12.		21.5	9.9	2.7	0	1.7	0	0	10376.	10.	2.70	19
4021	44	10.		21.3	9.8	.9	0	.5	0	0	10375.	10.	2.70	20
4031	49	10.		20.9	9.7	1.0	0	.5	0	0	10374.	10.	2.70	0
4032	41	12.		20.8	9.9	3.8	0	2.2	0	0	10373.	10.	2.70	1
4033	41	12.		20.6	9.9	3.0	0	2.7	0	0	10371.	10.	2.70	1
4034	43	11.		20.5	9.9	3.6	0	1.7	0	0	10369.	10.	2.70	[redacted]
4035	51	9.		20.4	9.9	.6	0	.3	0	0	10368.	10.	2.70	[redacted]
4048	23	14.		19.9	9.4	31.6	0	24.5	0	0	10367.	10.	2.70	4
4049	19	18.		19.7	9.3	148.6	0	120.9	0	0	10313.	10.	2.70	5
4050	22	19.		19.6	9.3	1356.7	0	108.4	0	0	10196.	10.	2.70	4
4051	22	21.		19.5	9.2	2566.7	0	194.0	0	0	10068.	10.	2.70	5
4052	23	22.		19.4	9.1	2592.5	0	211.1	0	0	9870.	10.	2.70	5
4053	25	21.		18.8	8.7	2241.1	0	165.2	0	0	9664.	10.	2.70	5
4054	26	21.		18.7	8.5	2201.2	0	135.2	0	0	9513.	10.	2.70	5
4055	26	21.		18.6	8.4	1931.0	0	131.8	0	0	9382.	10.	2.69	5
4056	23	22.		18.5	8.2	3006.5	0	215.6	0	0	9236.	10.	2.70	5
4057	22	22.		18.3	8.0	3277.7	0	244.3	0	0	8999.	10.	2.70	4
4058	21	22.		18.1	7.9	2944.1	0	226.7	0	0	8765.	10.	2.71	5
4059	19	22.		17.7	7.7	3371.1	0	268.1	0	0	8525.	10.	2.71	4

DEPTH FT	WAT. SAT. PU	POR. EFF. PU	POR. 2ND PU	CUM. EFF. POR. FT	CUM. HC-FT FT	PERM. INTRIN MD	PERM. GAS MD	PERM. OIL MD	PERM. WATER MD	CUM. PERM. GAS FT	CUM. PERM. OIL FT	CUM. PERM. WATER FT	CLEAN GRAIN DENS G/C3	VOL SH PU
4060	18	22.		17.4	7.5	286.3	0	233.7	0	0	8260.	10.	2.69	5
4061	19	20.		17.2	7.3	189.2	0	152.6	0	0	8047.	10.	2.71	5
4062	17	22.		17.0	7.2	391.3	0	324.6	0	0	7873.	10.	2.70	3
4063	16	23.		16.8	7.0	421.4	0	355.5	0	0	7525.	10.	2.71	4
4064	19	19.		16.6	6.8	178.5	0	143.7	0	0	7228.	10.	2.70	4
4065	21	19.		16.4	6.7	147.1	0	116.7	0	0	7104.	10.	2.70	3
4066	20	20.		16.2	6.5	227.0	0	182.0	0	0	6981.	10.	2.70	2
4067	19	20.		16.0	6.3	205.3	0	166.2	0	0	6795.	10.	2.70	[illegible]
4068	17	21.		15.8	6.2	337.2	0	280.5	0	0	6630.	10.	2.71	[illegible]
4069	15	23.		15.6	6.0	591.5	0	502.5	0	0	6322.	10.	2.71	2
4070	14	22.		15.4	5.8	633.8	0	543.1	0	0	5772.	10.	2.71	3
4071	14	22.		15.1	5.6	607.9	0	520.2	0	0	5195.	10.	2.71	3
4072	15	21.		14.9	5.4	483.8	0	411.1	0	0	4706.	10.	2.70	3
4073	14	23.		14.7	5.2	706.8	0	606.7	0	0	4224.	10.	2.71	2
4074	14	23.		14.5	5.0	647.3	0	554.9	0	0	3654.	10.	2.71	2
4075	14	23.		14.2	4.9	576.9	0	497.7	0	0	3121.	10.	2.72	4
4076	13	23.		14.0	4.7	547.8	0	476.7	0	0	2615.	10.	2.74	5
4077	15	23.		13.8	4.5	595.1	0	506.8	0	0	2103.	10.	2.71	2
4078	18	21.		13.5	4.3	285.5	0	234.6	0	0	1626.	10.	2.71	4
4079	22	18.		13.3	4.1	113.7	0	89.1	0	0	1447.	10.	2.70	3
4080	24	18.		13.2	4.0	77.8	0	59.3	0	0	1364.	10.	2.70	4
4081	24	18.		13.0	3.8	76.7	0	58.1	0	0	1307.	10.	2.71	4
4082	23	19.		12.8	3.7	124.7	0	95.0	0	0	1243.	10.	2.70	3
4083	21	21.		12.6	3.5	269.1	0	206.1	0	0	1113.	10.	2.71	3
4084	22	20.		12.4	3.4	182.7	0	140.0	0	0	909.	10.	2.71	3
4085	23	19.		12.2	3.2	109.4	0	84.5	0	0	792.	10.	2.71	4
4086	19	19.		12.0	3.1	97.8	0	79.5	0	0	698.	10.	2.71	12
4087	16	19.		11.8	2.9	129.2	0	108.0	0	0	608.	10.	2.71	13
4088	17	19.		11.6	2.8	145.8	0	121.0	0	0	511.	10.	2.71	9
4089	35	12.		11.5	2.6	3.3	0	2.1	0	0	435.	10.	2.71	1[illegible]
4158	33	12.		9.5	2.5	7.7	0	5.2	0	0	434.	10.	2.72	4
4159	33	17.		9.4	2.4	62.9	0	38.4	0	0	419.	10.	2.70	0
4160	42	17.		9.2	2.3	58.7	0	25.4	.1	0	382.	10.	2.70	0
4161	45	19.		9.1	2.2	150.1	0	52.7	1.2	0	354.	9.	2.71	0
4162	47	20.		8.9	2.1	288.3	0	90.5	3.7	0	281.	8.	2.71	0
4163	50	19.		8.7	2.0	177.0	0	48.4	3.2	0	201.	4.	2.70	0
4164	53	17.		8.5	1.9	60.4	0	15.7	1.0	0	162.	1.	2.70	0
4165	56	14.		8.3	1.9	11.6	0	3.2	.1	0	151.	0	2.70	0
4166	45	14.		8.2	1.8	11.3	0	5.2	0	0	148.	0	2.70	0
4167	39	13.		8.1	1.7	6.3	0	3.9	0	0	142.	0	2.70	0
4168	47	10.		7.9	1.6	1.3	0	.7	0	0	139.	0	2.70	0
4169	46	11.		7.8	1.6	1.8	0	.9	0	0	139.	0	2.69	0
4170	31	16.		7.7	1.5	48.2	0	31.4	0	0	133.	0	2.71	0

DEPTH	WAT. SAT.	POR. EFF.	POR. 2ND	CUM. EFF. POR.	CUM. HC-FT	PERM. INTRIN	PERM. GAS	PERM. OIL	PERM. WATER	CUM. PERM. GAS	CUM. PERM. OIL	CUM. PERM. WATER	CLEAN GRAIN DENS	VOL SH
FT	PU	PU	PU	FT	FT	MD	MD	MD	MD	FT	FT	FT	G/C3	PU
4171	33	16.		7.6	1.4	34.1	0	21.7	0	0	98.	0	2.71	0
4172	36	13.		7.4	1.3	9.7	0	6.2	0	0	80.	0	2.70	0
4173	46	9.		7.3	1.2	1.0	0	.6	0	0	76.	0	2.69	0
4174	41	9.		7.2	1.2	1.4	0	.8	0	0	75.	0	2.70	0
4175	30	12.		7.1	1.1	10.9	0	7.7	0	0	73.	0	2.71	0
4176	32	11.		7.0	1.0	6.3	0	4.3	0	0	65.	0	2.70	0
4177	56	7.		6.9	1.0	.1	0	0	0	0	63.	0	2.71	4
4179	53	8.		6.8	1.0	.2	0	.1	0	0	63.	0	2.71	[redacted]
4180	54	8.		6.7	.9	.3	0	.1	0	0	63.	0	2.71	3
4181	58	8.		5.6	.9	.2	0	.1	0	0	62.	0	2.70	15
4182	59	8.		6.5	.8	.1	0	.1	0	0	62.	0	2.71	
4280	26	12.		4.1	.8	13.0	0	9.6	0	0	61.	0	2.71	1
4281	32	11.		4.0	.7	4.4	0	3.0	0	0	52.	0	2.71	14
4282	34	11.		3.9	.6	3.7	0	2.4	0	0	50.	0	2.70	7
4283	26	13.		3.8	.6	15.4	0	11.4	0	0	44.	0	2.70	6
4284	38	10.		3.6	.5	1.9	0	1.2	0	0	36.	0	2.69	10
4348	66	12.		1.4	.4	1.0	0	.2	0	0	35.	0	2.75	20
4349	53	15.		1.3	.4	24.6	0	7.0	3	0	34.	0	2.70	0
4350	36	16.		1.1	.3	43.7	0	24.4	0	0	21.	0	2.70	0
4351	37	13.		1.0	.2	6.2	0	3.9	0	0	4.	0	2.70	4
4352	44	12.		.9	.1	2.4	0	1.3	0	0	1.	0	2.71	6
4353	52	11.		.8	0	.8	0	.4	0	0	0	0	2.71	11

Well File

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A DIVISION OF SCHLUMBERGER TECHNOLOGY CORPORATION
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LIBERAL, KANSAS 67901
SO 376528

3 pkgs

GULF OIL EXPLORATION & PRODUCTION COMPANY
ATTN: MR. N.E. TURNBO
P.O. BOX 12116
OKLAHOMA CITY, OKLAHOMA 73157
Attention:

Gentlemen:

Enclosed are 8 prints of the 1ea SEPIA DIL,LDT/CNL,ML,RFT,CWL EPT on:
Company GULF OIL EXPLORATION & PRODUCTION COMPANY,
Well TYRELL NO. 1-17
Field AMAZON DITCH County FINNEY State KANSAS

Additional prints are being sent to:

1 prints
GULF OIL EXPLORATION & PRODUCTION
ATTN: PRODUCTION SUPT.
BOX 2093, 433 N. ST. FRANCIS
WICHTIA, KANSAS 67202

1 prints
EXXON COMPANY, U.S.A.
2000 CLASSEN CENTER-EAST
OKLAHOMA CITY, OKLAHOMA 73102

2 prints
KANSAS GEOLOGICAL SURVEY
4150 MONROE STREET
WICHITA, KANSAS 67209

____ prints

1 prints
PANHANDLE ELECTRIC LOG SE VICE
105 W. WALL AVENUE
MIDLAND, TEXAS 79101

____ prints

1 prints
M.J. SYSTEMS
ATTN: REGIONAL MANAGER
1228 SOVEREING ROW
AOKLAHOAM CITY , OKLAHOMA 73108

____ prints

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PRODUCTION DEPARTMENT
MIDCONTINENT DIVISION

JOINT INTEREST

DLB
DNB File
Tyrell well

July 8, 1983

Casing Point Election
Tyrell #1-17
Amazon Ditch Field
Section 17-T22S-R34W
Finney County, KS

Gulf Oil Corporation
P. O. Box 12116
Oklahoma City, OK

Attention: Mr. Nathan Turnbo

Please be advised that Exxon Company, U.S.A., has elected to join you in the completion attempt of the captioned well with our 40% working interest. This will confirm our telephone approval given your Mr. Nathan E. Turnbo by our Mr. Doug Kenaley this date.

J. F. Mims

DSK:sma

xc: Mr. D. G. Brannen

~~VEI~~ File

Concur with MFB in that watching production for a while would give better feel and justification, if reserves relatively stable.

Interpretation of northeast extent of structure is geometric and could in reality extend through NE/4 of section.

Also, test data as shown for perfs 4278-4284 as 54 BO was for a 11 hr. period, or rate of 117 BOD. However, with proration between two producing wells, depletion could be a serious consideration. Will hold well for late in year spud

EB/tab

~~EPH~~

Based on completion results of Tyrell #1 we cannot now recommend drilling Tyrell #2.

Recommend producing Tyrell #1 for several months and then recalculate economics for drilling Tyrell #2.

Our original recommendation to drill Tyrell #2 was made prior to drilling Tyrell #1 and were based on reserve numbers from Marmaton and Lansing - Kansas City. Our current thinking is that the reserves are less than 1/2 of the original estimate.

MFB
8-16-83

TO: MFB
FROM: ~~WMC~~ OKC AREA
SUBJECT: TYRRELL #1 FINNEY Co., KANSAS

8/16/83

THE INITIAL TESTING OF THE SUBJECT WELL IS COMPLETED AND IS SUMMARIZED BELOW:

1ST TEST 4348' - 4353' NOT PRODUCED IN OFFSETS
SWB'D 7 BO 1 BW
BHP APPOX. 550 PSI

2ND TEST 4278' - 4284'

SWB'D 54 BO 0 BW PRODUCING IN OFFSETS
BHP = 540 PSI

3RD TEST 4170' - 4177' LANSING - KANSAS CITY

25 BO 167 BW - SQUEEZED OFF.

THE 2ND MARMATON ZONE TESTED WAS THE ONLY ZONE IN THE TYRRELL #1 WHICH WILL PRODUCE A SIGNIFICANT AMT OF RESERVES. HOWEVER INITIAL FLUID LEVELS INITIAL THE ZONE IS PARTIALLY DEPLETED BY THE OFFSETS. THE INITIAL PRODUCTION IN WELLS COMPLETED IN PARTIALLY DEPLETED RESERVOIRS CAN DECLINE VERY RAPIDLY. I RECOMMEND THE TYRRELL #1 BE PUT ON PUMP AND BE TESTED LONG ENOUGH TO ESTABLISH THE STABILIZED I.P. BEFORE THE TYRRELL #2 IS SPUDDED. THE TBG IS IN THE WELL, AND THE PUMPING UNIT & TANK BATTERY HAVE BEEN DESIGNED. A GOOD INITIAL PRODUCTION TEST OF THE COMMINGLED MARMATON ZONES COULD BE OBTAINED IN A SHORT PERIOD OF TIME.

WMC
8/16/83

NOTE: 1) PER FIELD, P.U. & T.B. WILL BE INSTALLED BY MONDAY 8/22/83
2) STRUCTURAL LOCATION OF TYRRELL #2 MAKES IT A HIGHER RISK. OFFSET TO EAST W/ DRY HOLE.

TYRRELL #1

MARMATON ZONES:

1ST TEST

4348'
4353' 5' AVG Ø = 16%
AVG Sw = 32%

1) SWAB F.L. TO 3200' APPOX 500 PSI ON ZONE
2) PERF'D ZONE W/ CSG GUN NO PRESS INCR.
3) INITIAL F.L. 3100' APPOX 550 PSI BHP
4) F.L. AFTER ACID JOB 2850'
5) IFL AFTER FRAC 2800'
6) 1) SWB TEST IFL 200' FFL 3400'
REC 24 BO GAS TSTM
2) SWB TEST IFL 3400' FFL 3200'
2 SWB RUNS REC 1BW 7BO
7) SET RBP @ 4310'

2ND TEST 4278'
4284' 6' AVG Ø = 14%
AVG Sw = 18%

1) SWAB FL. TO 3200' APPOX 474 PSI ON ZONE
2) PERF'D ZONE W/ CSG GUN F.L. DROPPED FROM 3200' TO 4100'
181' ABOVE CENTER OF PERFS APPOX 80 PSI BHP
3) IFL 4141' ON 1ST SWAB RUN REC 0 BO 2BW LIMITED FL ENTRY
4) ON SITP 170 PSI IFL 3100' APPOX BHP ≈ 517 PSI
FFL S.N. REC 8 BO 0 BW
5) FRAC'D WELL FOAMED ACID FRAC
6) IFL 2800' FFL S.N. REC 48 BO 0 BW S_o = 36.5°
APPOX BHP 540 PSI
2ND SWB TEST: IFL 2700' FFL 3600' REC 54 BO 0 BW
7) SET RBP @ 4220'

3RD TEST LANSING - KANSAS CITY

4170'
4177' 7'

1) PERF'D ZONE W/ CSG GUN
2) IFL 2300' FFL 3600' REC 11BW 0 BO
3) ACIDIZED ZONE
4) SWB TEST IFL 2300' FFL 3000'
REC 28 BW 4 BO IN 8 HRS
SWB TEST IFL 2600' FFL 3200'
REC 147 BW 36 BO IN 11 HRS
SWB TEST IFL 2700' FFL 3600'
REC 107 BW 43 BO
5) SQUEEZED OFF ZONE

TWO MARMATON ZONE COMMINGLED WAITING ON PUMPING EQUIP.

Evaluation Data

Reason for Evaluation

☐ Lease Expiration ☐ Mineral Owner Demand ☐ Acreage Submittal ☐ Farmout Request ☒ Seek Additional Production

☐ Other: Remarks: DEEP RIGHTS – GULF 60% – EXXON 40% OPERATOR GULF OIL EXPLORATION & PRODUCTION

Date Initiated: AUGUST 1982	Pool: AMAZON DITCH	Lease & Proposed Well Location: TYRRELL #1 1830' FSL, 1980' FEL SE/4 - Sec. 17 - T 22S - R 34W		
Gulf Working Int.: 60%	Gulf Net Int.:	Royalty Int.:	O.R.R.:	Est. Total Depth: 4400
County: FINNEY	State: KANSAS			
Request By & Date:	Description of Gulf Ac. Involved: SE/4 Sec. 17 - 22S - 34W	No. Acres: 160	Exp. Date: HBP SHALLOW (GAS-[illegible])	
Producing Horizon(s): LANSING-KANSAS CITY	Spacing - Acres: 80 AC.	Spacing Reg. No. & Date: (10 AC. GEN. UNSPACED RULES)	Approved Location: WITHIN 150' of C NW/4 - SE/4	
MARMATON 'A' (LENAPAH)	80 AC	C-9303	SEC. 17 - 22S - 34W	

Offset Well Data

Offset Wells Operator & Well Location	Date Completed / Datum Elev.	Formation Name	Subsea Top	Net Pay	Initial Production Test Data	Initial S.I. Press. BH or WH	Latest Production Test Data	Latest S.I. Press. BH or WH	Date	Cumulative Production [Bbls] - MCF	To
GULF SUDAN INT. MISS. #1 SE/4 - SW/4 - Sec. 17-22S-34W	1977 2974 KB	LANS. K.C.	-816	6'	95 BOPD +10 BWPD COMMINGLED		50 BOPD 70 BWPD		6-16-82	108,529 BO	4/82
		L-KC	-1006	16'							
		MARMATON 'A'	-1303	4'							
GULF SUDAN INT. MISS. #2 NW/4 - SW/4 - 17-22S-34W	1977 2979 KB	MARMATON 'A'	-1307	4'	14 BOPD 17 BWPD		3 BOPD 48 BWPD		6-17-82		
GULF BURG #2-20 NW/4 - NE/4 - 20-22S-34W	1977 2976 KB	LANS.-K.C.	-914	12'	37 BOPD + 56 BWPD	95 BOPD 65 BWPD	53 BOPD 65 BWPD		[illegible]	166,194 BO	4/82
		LKC	-1008	4'							
		MARMATON 'A'	-1298	6'	58 BOPD + 87 BWPD						
GULF BURG #1 NW/4 - NW/4 - 20-22S-34W	1963 2984 KB	MARMATON 'A'	-1307	4'	47 BOPD, 6% W		7½ BOPD [illegible] BWPD		6-16-82		
HORIZON BURG #1 SE/4 - NW/4 - 20-22S-34W	1962 2982 KB	MARMATON 'A'	-1303	6'	120 BOPD + NW					142,323 BO	4/82
HORIZON BURG #2 C E/2 - NW/4 - 20-22S-34W	1978 2982 KB	MARMATON 'A'	-1294	6'	9 BOPD						
GULF BARRETT #2-20 NE/4 - SW/4 - 20-22S-34W	1976 2974 GR	MARMATON 'A'	-1310	6'	62 BOPD 18 BWPD		65 BOPD 45 BWPD		6/16/82	105,810 BO	4/82
HORIZON BARRETT NW/4 - SW/4 - 20-22S-34W	1961 2983 DF	LANS.-KC.		0?	SHOW OF OIL ON DST						
		MARMATON 'A'	-1310	0?	NOT TESTED						
		MISSISSIPPIAN	-1785	6'	336 BOPD + NW					142,323 BO	4/82

Geological Data

Horizon	Est. Subsea Top of Pay	Est. Net Pay in Well Bore & Oil or Gas	Est. Avg. Net Pay & Prod. Ac.	Outpost or Proven	% Chance of Success	Remarks
LANSING-KC	-800	6'/OIL	6'/80 AC	PROVEN	55%	ZONES COULD BE COMMINGLED
LANSING-KC	-1000	8'/OIL	16'/80 AC	PROVEN	65%	
MARMATON 'A'	-1300	6'/OIL	6'/80 AC	PROVEN	65%	

June 7, 1982

AMAZON DITCH FIELD	AFE #85436	AFE Cost $350,000
Yyrrell #1-17	4400'	Marmaton
Sec 17-22S-34W	Gulf WI 60%	REFNO DM 0373
Finney Co., KS	API #15-055-20528	Spudded 6/20/83

06/30 — 4400'TD, 0'/0 hrs, 8-5/8"csg @599', f/rng RFT w/prsr f/4350-3768' & RFT w/fluid f/4172-4052', rn SWC's f/4352-3766', RD Schl, TIH CCM, POH LD DP, C/O rams, RU csg tls. $101,173 10 days

07/01-05 — TD 4400', PBTD 4349', 5½"csg @4393', 2% KCL wtr, Rn 107 jts 5½"14# K-55 8RD ST&C csg=4398', set @4393', FC @4349', CHC, RU Dowell & cmt w/50 sks Gulf mix @12.6#, tail w/275 sks "H" + 4% Gel + 2% CaCl, +¼% D-60 @14.7#, displ top plug w/106 bbls 2% KCL wtr, BP w/1700#, floats-OK, gd circ, CIP @11:30 AM 6/30/83, set slips, ND BOPE, cut off 5½"csg, weld on bell nipple, swage & valve, rlsd rig @5:00 PM, 6/30-83. Rn temp svy: TOC @2500'. $145,709 11 days

07/06 — Rlsd rig @5:00 PM 6/30/83. Place on INACTIVE REPORT pending completion. $145,709

07/19 — PU f/INACTIVE REPORT, TD 4400', PBTD 4360', 5½"csg @4393'. RU Compl Unit & install 5½"x2-7/8"Hercules tbg head, NU 7-1/16" 5000# BOP, tst to 1000#, PU 4-3/4"bit, 2 3½"DCs & 131 jts 2-7/8" 6.5# 8RD EUE tbg. Tag cmt @4324', instl strpg rubber, PU pwr swvel, drl 16' cmt abv FC, plug & FC, & 16' below FC, circ pipe clean, SWIFN. $178,614 1 day

07/20 — TD 4400', PBTD 4360', 5½"csg @4393'. Displ hole w/120 bbl 2% KCL wtr, POH w/bit & DC's, RU GO & run CBL-VDL-CCL-GR f/2300-4360' w/1000#, shwd gd bond, RIH w/114 jts 2-7/8" 6.5# N-80 tbg w/SN to 3720'. RU to swb, SWIFN. $183,923 2 days

07/21 — 4400'TD, 4366'PBTD, 5½"csg @4393'. Swb FL dn to 3200', POH w/tbg, RU Gearhart & full lubricator, TIH w/4"HCG w/DML XXIII & perf Marmaton lm w/21 holes, 5', 4 JSPF, 120° phsg, all shots fired, no prsr incr, TIH w/RTTS & SN & 132 jts 2-7/8"6.5# N-80 tbg to 4305', ND BOP, NU tbg slips & pack'g, set RTTS @4305', instl Orbit vlv & TIH vlv, SWIFN. $187,643

07/22 — TD 4400', PBTD 4366', 5½"csg @4393', RU to swb, swb well, IFL @3100', FFL @SN @4300', rec 12 bbls form fl, rec ttl 14.5 bbls, tr of oil, no fl entry, SG 1.086, pH 6.3, Cl 66990, Res .055 @90°F, SITP 0#. $189,632 4 days

07/23-25 — 4400'TD, 4366' PBTD, 5½"csg @4393', Perfs: 4348-4353', Acid: 4348-4353', Pkr: Howco RTTs @4290'. 7-23: Swb well, rec 5 BW w/tr oil, FFL @SN 4308', WO Dowell, RU Dwll, fill annu w/60 bbl 2% KCL, prsr tst well to 500#, prsr to 0#, POH f/1 jt collapsed tbg @3300',TIH, set pkr w/15,000# @4308',swb 20 bbl fl to 1500',fill annu w/35 bbl 2% KCL wtr, prsr annu to 500#, acdz w/500 gal 15% HCL acid, MPP 2700#, AIR 8 BPM, 2500# breakover, 75% qulty acid, max prsr on annu 2000#, 15 min SITP 1000#, SWION.
7-24: ND BOP, POH w/split jt @3200'. RIH w/OE tbg. Rvrs circ acid w/4% KCL, LD 131 jts of "junk"tbg 6.5# N-80,WO new tbg, strap & drift 170 jts 2-7/8"6.5# N-80 tbg, RIH w/152 jts to 4290' w/RTTS & SN SWION.
7-25: ND BOP, set pkr @4290' w/20,000#, RU & swb Fl to 2850', RU Dowell loaded annu w/4% KCL wtr to 500#, acdz w/500 gal 15% HCL jelled acid pad, 2000 gal 75% AP, 2000 gal 75% acid w/1 ppg 10/20 sd, 2000 gal w/2 ppg, 10/20 sd, 2000 gal w/3 ppg 10/20/sd, flush w/7 bbl 2% KCL, 3750# MPP,
APP 2700#, AIR 8 BPM, well flwg, rec 40 BLW w/tr oil, swb w/IFL @2800', FFL 3600', rec 8 BLW, 1 BO, SWION, 48 TBWR, 17 TBLWYTR. 7

Tyrrell #1-17

4351 360 PSI

07/26 4400'TD, 4366'PBTD, 5½"csg @4393', Perfs: 4348-4353', Pkrs: RTTS @4290', fill annu w/10 bbl KCL wtr, swb f/2000-3400', rec 15 BLW & 23.5 BO, TBOR 25½, rec all load wtr & 15 bbl fm wtr, oil grav 30.14 @60°, gas TSTM. 8 days $225,217 Tyrrell #1-17

07/27 TD 4400', PBTD 4310', 5½"csg @4393', swb well, SFL @3400', FFL @3200', swbd 1 BW, 7 BO, 1st run 4 BO entry, ND wellhead, NU BOPE, unseat pkr, POH, PU Howco RBP set @4310', fill csg w/72 bbl 4% KCL wtr, rvrs circ 6 BO to frac tank, prsr RBP to 1700#, OK. Swb FL dn to 3000', POH w/10 stds tbg, SWIFN. TBOR 39. $229,339 9 days Tyrrell #1-17

4281

07/28 TD 4400', PBTD 4310', 5½"csg @4393', SITP 0#, POH w/tbg, RU Gearhart, rn CCL-GR, dump 2 sk sd on RBP, RU lubricator & perf Marmaton Lm w/4"HSCG w/DML XXIII 4 jspf, 120° phsg f/4278-4284', 6'/25 holes, RIH w/RTTS, SN & tbg, set RTTS @4242', install wellhead &load annu w/4% KCL wtr, prsr to 500#, FL drpd f/3200-4100' aft perf'd. Swb well, 1 st run f/SN @4141' 2 BW, 0 BO, 2nd run no fluid entry, 3rd run 50' fluid entry, 4th run, no fl entry, SWIFN. $235,842 10 days Tyrrell #1-17

07/29 TD 4400', PBTD 4310', 5½"csg @4393', SITP 170#, swb well, SFL @3100', FFL @SN, rec 8 BO 0 BW, RU Dowell, prsr ann to 500#, acdze Marmaton Lm dn tbg w/2500 gal 15% HCL w/12,000# 10/20 sd w/95,600 SCF N_2, 1st stg: 500 gal 15% HCL gelled pad 8 BPM @0#. 2nd stg: 2000 gal 75% quality acid pad 8 BPM @ 2300#. 3rd stg: 2000 gal 75% acid w/1 ppg sd 8 BPM @2480#. 4th stg: 2000 gal 75% acid pad w/2 ppg sd 8 BPM @2600#. 5th stg: 1,008 gal 75% acid w/3 ppg sd, screened off @3950#. ISIP 3200#, 5 min 2500#, Tyrrell #1-17

07/29 10 min 1600#, 15 min 1500#, AIP 2600#, AIR 8 BPM, flw well, flw'd 14 BLW, swb well, SFL @1800', FFL @3000', swb'g f/SN, swbd 17 BLW, 10 BO, 23 BLWYTR, TBOR 56, gas tstm, total load pmpd 54 Bbls. $247,434 11 days Tyrrell #1-17

07/30-08/01 7-30: @4400'TD, 4366'PBTD, 5½"csg @4393'. Perf: 4278-4284', swb well, ITP 200#, IFL 2400', FFL 3500'. BWR 25, TBWR 57,BOR 27, TBOR 45. SIWON. 7-31: Op well, TP 50#, swb well f/2800'-SN, BOR 48, TBOR 93, BWR 0, oil gravity 36.5° @87°. SIWON. 8-1: SIWFWE. $249,986 14 days Tyrrell #1-17

08/02 4400'TD, 4366' PBTD, 5½"csg @4393', KCL wtr, Perf:4348-4353', 4278-4284', pkrs: RBP @4310', RTTS @4242', swb well, IFL @2700', FFL @3600', BOR 54, TBOR 147, BWR 0. SIWON. SITR @0600 hrs 8/02/83 70#. $252,690 15 days Tyrrell #1-17

08/03 4400'TD, 4366'PBTD, 5½"csg @4393', KCL wtr, Perfs: 4348-4353'(isolated), 4278-4284'. Pkrs: RTTS @4310', SITP 70#, bled off prsr, swb well f/3000' to 3600', BOR (27), TBOR 174, BWR 0, TBWR 0 in 7 hrs, ND tbg hd, NU BOP's & tst 1000#. SIWON $256,151 16 days Tyrrell #1-17

Rate 92 1/2 BOD

08/04 4400TD, 4366' PBTD, 5½"csg @4393', perfs: 4170-4177', pkrs: Hall. RBP @4220', Hall RTTS @4120', SITP @0600 8-3-83 60#, SITP 8-4-83 0#.

Unseat RTTS, cir sd 4284'-4310', ltch RBP & MU hole to 4220', set RBP & MU hole 20', set RTTS, press to 1200# -OK unseat RTTS, TOH w/RTTS, RU Gearhart & perf f/4170'-4177' 4JSPF, 120° PHSG, 28 holes w/4" HC 23 XXIII charges, RD Gearhart, TIH, set RTTS @4120' w/20,000#, PU swb & swb'g, st fl @1300', md 3 swab rns @SN, swb 15 BLW, pull swb every 30-min. Swb 2 BLW, Tyrrell #1-17

08/05 Additional info 8/4/83: Rep swb line. SWION, TBLWR 17 Bbl. No oil or gas #261,267 17 days 8-5-83: 4400TD, 4366' PBTD, 5½"csg @4393', KCL wtr, perf: 4348-353', 4278-284', isolated, 4170-4177', pkr: RBP @4220', RTTS @4120', SITP 0#, swb well, IFL 2300', FFC 3800', rec 11 BW w/trace oil & gas, RU Dowell, fill ann w/22 Bbl KCL & prsr'd ann to 500#, acdz w/500 gal 15% MSR-100 + 10 Bbl 4% KCL, FM brk dwn w/2400#, AIP 1700#, w/2 bbl acid hole on vac, AIR 2½ BPM, TF pmpd 37 Bbl. ISIP-VAC, SWI f/1 hr, Tyrrell #1-17

08/05 swb well f/2300-3000', rec 218 TBW, 37 BLW & 181 BFM wtr & 4 BO in 8 hrs. SWIFN. Wtr anlys: SG: 1.050, Ph 6.6, Cl 39500 ppm, Res: .1 @93°F $264,926 18 days Tyrrell #1-17

08/06-08 4400'TD, 4366' PBTD, 5½"csg @4393', KCL wtr, Perf: 4348-4353' isolated, 4278-4284' isolated, 4170-4177', pkrs: RBP @4220', RTTS @4120'. 8-6: SITP 0#, #6:00 AM, swb well, IFL 2600', FFL 3200', BWR 197, BOR 28 in 11 hrs, SWION. Wtr sample: sg 1.049 @60°F, pH 6.9 Cl 39450, Res .1 @93°, Iron 50 ppm, API 33.7 @98° f/oil. 8-7: SITP 0#, swb well, IFL 2900, FFL 3600', BWR 167, BOR 25, SWION, wtr smpl Cl 32,000, API 33° @95% f/oil. 8-8: SITP 0#, swb well, IFL 2800', FFL 3400', Tyrrell #1-17

08/06-08 BWR 162, BOR 18, TBWR 707, TBOR 75, SWION. Wtr sample: SG 1.0040, pH 6.9, Cl 33000, Res .1 @92°, API 33° @95°. $271,007 21 days Tyrrell #1-17

08/09 TD 4400', PBTD 4220', 5½"csg @4393', swb well f/4100', SFL @3000', FFL @3300'. Rec'd 92 BW + 10 BO, TBOR 85, TBWR 799, SITP 0#, unseat pkr, TOH 140' to 3980', set pkr, RU Howco, load annu w/40 BW, prsr annu to 500#, estb rt @ 6 BPM @500#, sqz perfs @4170-4177' w/100 sks"H" + 2% $CaCl_2$ +.5% Halad 9 @15.6#, displ w/25 BW, prsr incr to 2650#, 1½ bbl flw bk, SWI f/8 min, rls prsr, no flw bk, RD Howco, rls RTTS & POH w/tbg, SWIFN. $276,655 22 days Tyrrell #1-17

08/10 TD 4400', PBTD 4220', 5½"csg @4393', WOC, fill hole, PU bit, csg scraper & 2 3½"DC's, TIH to 2850', RU rev unit & pwr swvl, tag cmt @3985', drl cmt f/3985-4210', tst csg to 500#, OK. Wsh 10' sd to 4220', POH w/1 jt, SWIFN. $279,760 23 days Tyrrell #1-17

08/11 4400'TD, 4366'PBTD, 5½"csg @4393', perf: 4378-4353', 4278-4284', POH w/bit & BHA, MU pkr rtrv tl, TIH 4220', displ hole w/4% KCL wtr, latch RBP & POH, TIH w/bit, tag sd @4340', RU to rvrs out, atmpt to circ, pmpd 50 bbl KCL wtr, UAT circ, atmpt to POH, pull'g unit brk dn, inst TIW v.v & SWION. $282,712 24 days Tyrrell #1-17

08/12 4400'TD, 4366'PBTD, 5½"csg @4393'. Perf: 4348-4353', 4278-4284', KCL wtr. Repr rig. $283,617 25 days Tyrrell #1-17

08/13-15 4400'TD, 4366' PBTD, 5½"csg @4393', KCL wtr, Perf: 4348-4353', 4278-4284', pkrs: Bkr tbg anchor @4216'. 8-13: f/rpr rig, POH w/tbg, SWION. 8-14: RU Sd pmp, TIH & C/O to 4355', POH & RD sd pmp,. TIH w/bit & tag btm @4356', ampt to wsh deeper, UAT, POH SLM, TIH w/sd pmp, md 5 runs, no sd, MU tail pipe & tbg anchor & SN, TIH w/150 jts 2-7/8"6.5 N-80 tbg to 4243', ND BOP, set anchor w/10,000# ten inst tbg slips & 2M orbit vlv. Tyrrell #1-17

08/13-15 8-15: Release WSU & turn over to production 10:00 AM 8/14/83
$289,846 27 days