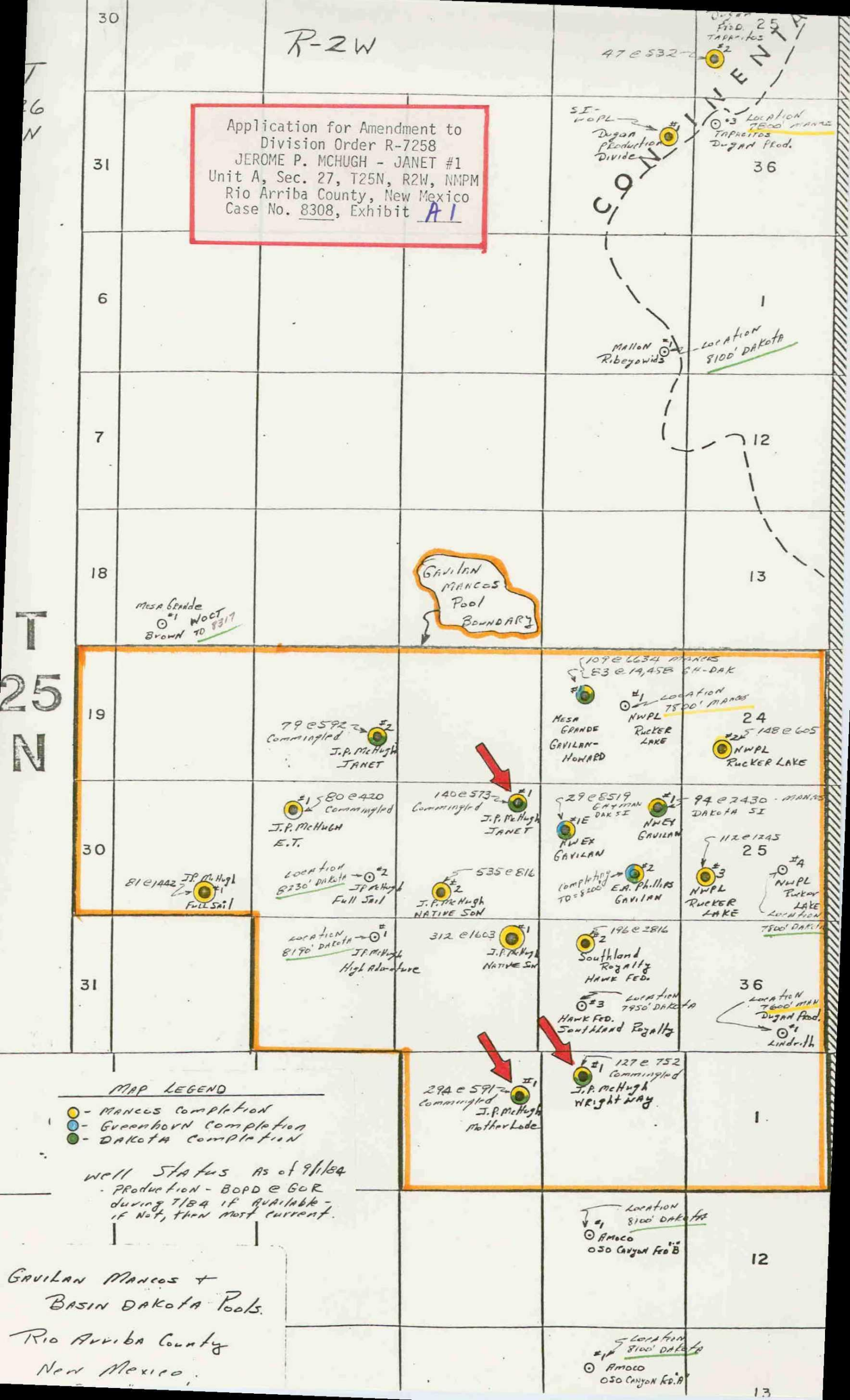

Application for Amendment to
Division Order R-7258
JEROME P. MCHUGH - JANET #1
Unit A, Sec. 27, T25N, R2W, NMPM
Rio Arriba County, New Mexico
Case No. 8308, Exhibit A1
R-2W
T 25 N
T 26 N
30
31
6
7
18
19
30
31
25
36
1
12
13
24
GAVILAN MANCOS Pool Boundary
MAP LEGEND
- MANCOS Completion
- Greenhorn Completion
- DAKOTA Completion
WELL STATUS As of 9/1/84
- PRODUCTION - BOPD @ GOR during 7/84 if available - if not, then most current.
GAVILAN MANCOS & BASIN DAKOTA Pools
RIO ARRIBA County
NEW MEXICO.

dugan production corp.

July 11, 1984

Application for Amendment to
Division Order R-7258
JEROME P. MCHUGH - JANET #1
Unit A, Sec. 27, T25N, R2W, NMPM
Rio Arriba County, New Mexico
Case No. 8308, Exhibit A2

Frank Chavez
New Mexico Oil Conservation Division
1000 Rio Brazos Rd.
Aztec, NM 87410

RE: Proposed Revision of Allocation Factors
Jerome P. McHugh's Janet #1
Gavilan Mancos-Dakota Fields
Unit A, Sec. 27, T-25N, R-2W, NMPM
Rio Arriba County, New Mexico

Dear Mr. Chavez:

We are are writing to request your approval of revised allocation factors to be utilized in splitting production between the Mancos and Dakota formations in the captioned well.

Currently, as provided by Order R-7258, dated April 8, 1983, the Mancos formation receives 63% of the oil and 82% of the gas, while the Dakota formation is allocated 37% of the oil and 18% of the gas. It is proposed that the oil allocation factor be revised to reflect 90% of the commingled stream being allocated to the Mancos and 10% of the commingled oil stream allocated to the Dakota. The gas allocation factors should not be changed.

The proposed revised allocation factors are necessitated by the fact that production has improved since the initial testing, at which time a combined potential of 116 BOPD with an average GOR of 2121 was indicated (73 BOPD with a GOR of 2753 from the Mancos perforations 6689-7000' and 43 BOPD with a GOR of 1047 from Dakota perforations 7740-7869'). The early testing indicated that the well would flow intermittently and appeared to be a mediocre well. Upon installing artificial lift equipment in November of 1983, the commingled production averaged 233 BOPD during November and has consistently produced at rates exceeding that indicated by the initial potential, which was utilized in determining our original allocation factors. It is our belief that the increase in productivity actually exhibited by the well is the result of natural fractures in the Mancos cleaning up with production. During the drilling of the Mancos, we did encounter lost circulation and it was necessary to include lost circulation material in our mud system in order to maintain circulation. It is believed that this is indicative of natural fracturing within the Mancos. The Dakota interval was drilled with no lost circulation and it is believed that the initial potential is indicative of the productive capacity of the Dakota formation.

709 BLOOMFIELD RD. • P. O. BOX 208 • FARMINGTON, NEW MEXICO 87499 • PHONE: (505) 325-1821

With respect to gas production, gas sales were commenced 6-24-83 and since that time the commingled stream GOR has averaged 791 SCF/STB, much less than anticipated from our initial testing. With the revised oil allocations and the reported gas production, the GOR during the past 7 months has averaged 622 SCF/STB from the Mancos and 1169 SCF/STB from the Dakota. These GOR's are in line with the GOR's indicated from testing and/or production in other wells in the field.

I have summarized the production submitted to date for the Janet #1 on the attached tabulation and have also indicated the numbers as revised, utilizing the proposed revised allocation factors. It is my belief that it is necessary to make these revisions in order to avoid misrepresenting the true productive capacity of the Dakota in this general area. As can be seen from the tabulation, based upon our current allocations, the Dakota is indicated to have averaged up to 86 BOPD and actually averaged 57 BOPD per producing day during the last 7 months of production on rod pump. These high rates of production from the Dakota are unrealistic, considering the initial testing and the reservoir parameters that are indicated from the open hole logs and sample analysis. As can be seen from the revised production schedule, the actual Dakota production during the last 7 months averaged 16 BOPD with the increase in productivity being from the Mancos interval. It has been our contention ever since the date of first production that the Dakota reservoir in this general area is of secondary interest and that the primary zone of interest is the Mancos and we believe that the revised allocation factors proposed herein more properly reflect this fact than do our original factors based upon an initial potential totaling 116 BOPD.

Should you have questions regarding this matter or need additional information, please feel free to contact me.

Sincerely,

John D Roe

John D. Roe
Petroleum Engineer

fp
cc: Jerome P. McHugh

Attachment

Jerome P. McHugh
Janet #1

	IP	42%
MAN -	73	51
DAK -	43	18

uc = unchanged.

	C-115 As Submitted							Revised C-115					
	oil production - bbl			mcf - GAS production				bbl - oil production			mcf - GAS production		
Month	DAKOTA	MANCOS	TOTAL	DAKOTA	MANCOS	TOTAL	DAYS ON	DAKOTA	MANCOS	TOTAL	DAKOTA	MANCOS	TOTAL
11/83	1468 (86)	2498	3966	496	2262	2758	17	306 (18)	3660	uc	uc	uc	uc
12/83	1967 (63)	3350	5317	743	2385	4128	31	539 (17.4)	4778	uc	uc	uc	uc
1/84	1838 (59)	3128	4966	589	2683	3272	31	521 (16.8)	4445	uc	uc	uc	uc
2/84	1598 (67)	2719	4317	408	1861	2269	24	391 (16.3)	3926	uc	uc	uc	uc
3/84	1694 (55)	2884	4578	551	2512	3063	31	487 (15.7)	4091	uc	uc	uc	uc
4/84	1043 (35)	1777	2820	377	1664	2041	30	456 (15.2)	2364	uc	uc	uc	uc
5/84	1526 (49)	2598	4124	526	2395	3921	31	455 (14.7)	3669	uc	uc	uc	uc
7 mo Total	11,134 (57)	18,954	30,088	3690	16,762	20,452	195	3157 (16)	26,933				
% of Total	37%	63%		18%	82%			10%	90%				

Jerome P. McHugh
Janet #1

MAN - 73 31
DAK - 43 18
116 49

uc = unchanged. JDR 9-2-84

	C-115 As Submitted							Revised C-115 (As Proposed)					
	Oil Production - bbl			MCF - Gas Production			Days On	bbl - Oil Production			MCF - Gas Production		
Month	Dakota	Mancos	Total	Dakota	Mancos	Total		Dakota	Mancos	Total	Dakota	Mancos	Total
11/83	1468 (86)	2498 (147)	3966	496	2262	2758	17	306 (18)	3660 (215)	uc	uc	uc	uc
12/83	1967 (63)	3350 (108)	5317	743	3385	4128	31	539 (17.4)	4778 (154)	uc	uc	uc	uc
1/84	1838 (59)	3128 (101)	4966	589	2683	3272	31	521 (16.8)	4445 (143)	uc	uc	uc	uc
2/84	1598 (57)	2719 (113)	4317	408	1861	2269	24	391 (16.3)	3326 (144)	uc	uc	uc	uc
3/84	1694 (55)	2884 (93)	4578	551	2512	3063	31	487 (15.7)	4091 (132)	uc	uc	uc	uc
4/84	1043 (35)	1777 (59)	2820	327	1664	2041	30	456 (15.2)	2364 (79)	uc	uc	uc	uc
5/84	1526 (49)	2598 (84)	4124	526	2395	3921	31	455 (14.7)	3669 (118)	uc	uc	uc	uc
7 mo Total	11,134 (57)	18,754 (97)	30,088 (154)	3690 (341)	16,762 (864)	20,452 (680)	195	3157 (16)	24,983 (128)	uc	uc 3690 (1169)	uc 16,762 (622)	uc
% of Total	37%	63%		18%	82%			10%	90%				
6/84	1529 (51)	2605 (87)	4134	462	2100	2562	30	426 (14.2)	3708 (124)	uc	uc	uc	uc
7/84	1601 (52)	2724 (88)	4325	456	2024	2480	31	475 (15.7)	3900 (126)	uc	uc	uc	uc
Prop. Total	14,264 (56)	24,283 (95)	38,547 (151)	4608 (323)	20,886 (860)	25,494 (444)	256	4008 (15.7)	34,541 (135)	uc	uc 4608 (1150)	uc 20,886 (605)	uc 25,494
% of Total	37%	63%		18%	82%			10%	90%		18%	82%	
	BOPD ↑	BOPD ↑	BOPD ↑	GOR ↑	GOR ↑	GOR ↑		BOPD ↑	BOPD ↑		GOR ↑	GOR ↑	

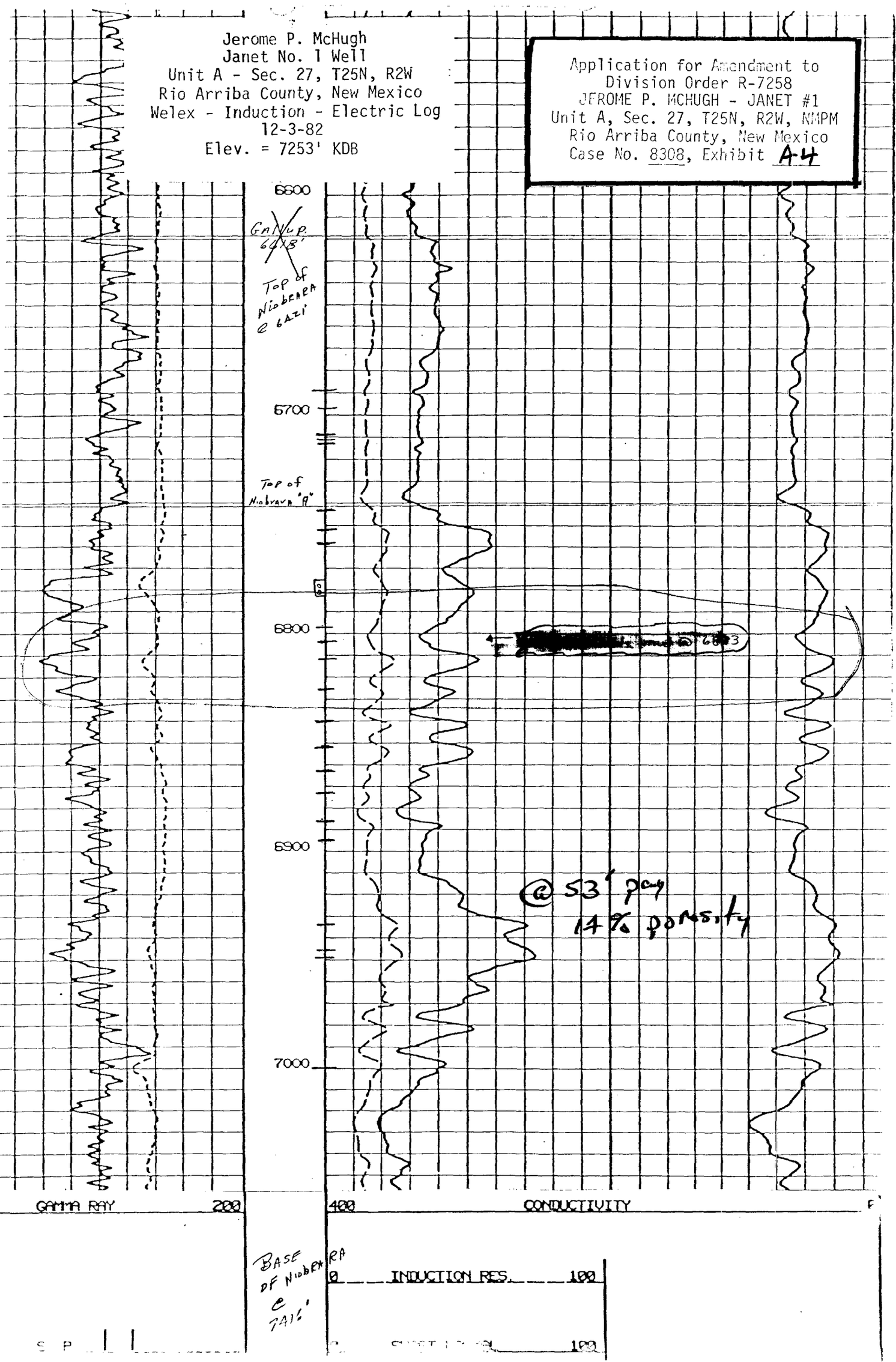
Note 1st oil to tank 1-8-83, however until installing Rod Pump 11-5-83 No Significant Production had occurred. Cummulative Production 11-1-83 was 5718 bbl well had Actually Produced 7 months for A daily Avg. of 27 BOPD. Gas was 1st delivered to NWPL on 6-24-83.

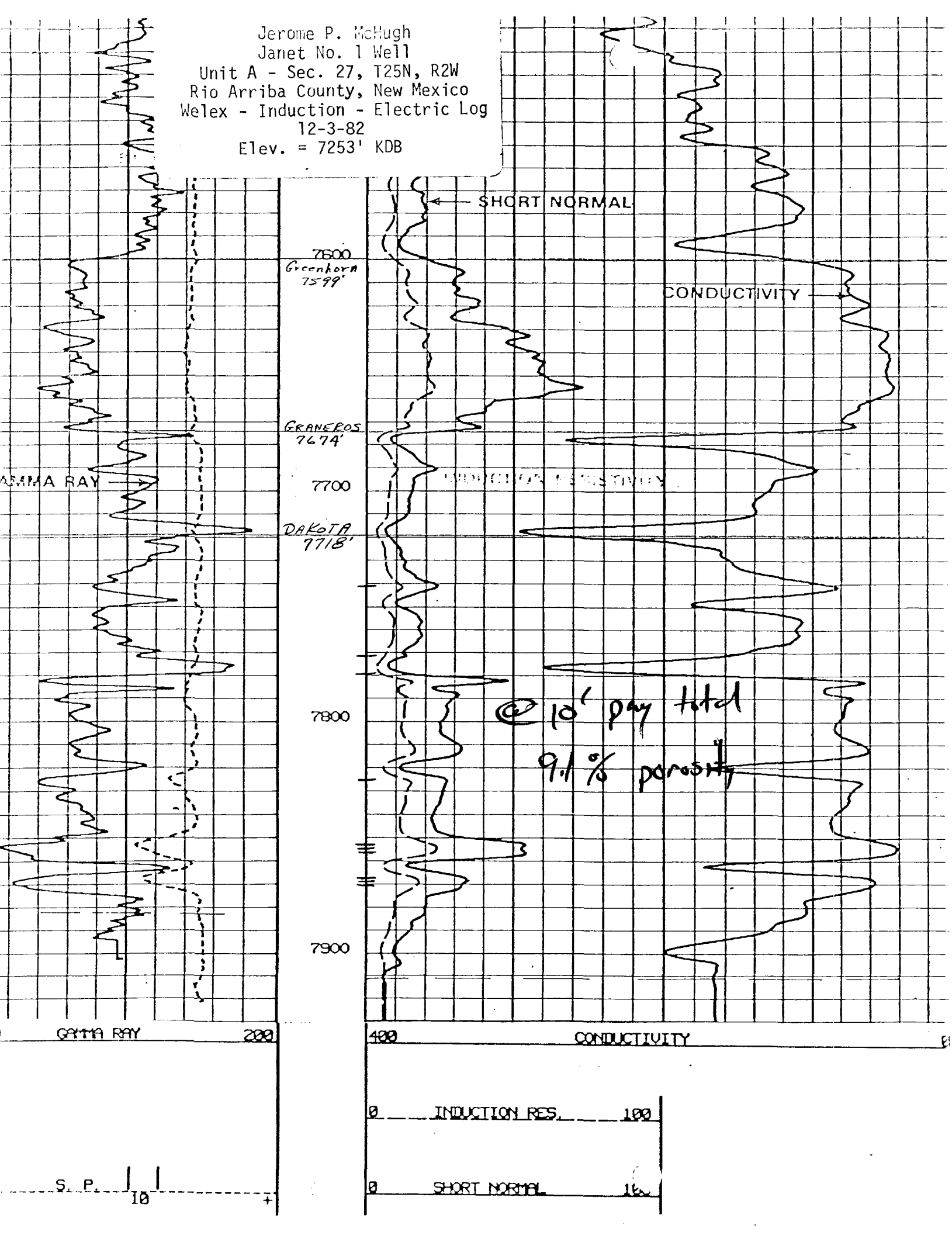
Application for Amendment to Division Order R-7258
JEROME P. MCHUGH - JANET #1
Unit A, Sec. 27, T25N, R2W, NMPM
Rio Arriba County, New Mexico
Case No. 8308, Exhibit A3

(1) (2) (3) (4) (5) (6) (7) (8) (9) (10) (11) (12) (13) (14)

Jerome P. McHugh
Janet No. 1 Well
Unit A - Sec. 27, T25N, R2W
Rio Arriba County, New Mexico
Welex - Induction - Electric Log
12-3-82
Elev. = 7253' KDB

Application for Amendment to
Division Order R-7258
JEROME P. MCHUGH - JANET #1
Unit A, Sec. 27, T25N, R2W, NMPM
Rio Arriba County, New Mexico
Case No. 8308, Exhibit A-4




Jerome P. McHugh
Janet No. 1 Well
Unit A - Sec. 27, T25N, R2W
Rio Arriba County, New Mexico
Welex - Induction - Electric Log
12-3-82
Elev. = 7253' KDB
SHORT NORMAL
CONDUCTIVITY
7600
Greenhorn
7599'
GRANEROS
7674'
7700
DAKOTA
7718'
7800
7900
@ 10' pay total
9.1% porosity
GAMMA RAY
0
200
400
CONDUCTIVITY
0
INDUCTION RES.
100
0
SHORT NORMAL
16
S. P.
10

MANCOS - DAKOTA WELL DATA - Gavilan Area - Rio Arriba County, New Mexico

Well Name	Location[D] U-S-T-R	Order Drld.	KB Elev.	Completion Date	Mancos Zone[A] Perfs	Mancos Zone[A] BOPD @ GOR	Dakota Zone Perfs	Dakota Zone BOPD @ GOR	Cumm. to 8-1-84 BO	Cumm. to 8-1-84 MCF	Current Prod. BOPD @ GOR
Jerome P. McHugh											
Janet #1	A-27-25N-2W	2	7253	2-17-83	6689-7000	73 @ 2753	7740-7869	43 @ 1047	44,265	35,616	140 @ 573
Janet #2	I 21-25N-2W	3	7197	9-1-83	6657-7055	60 @ 3000	7841-7994	36 @ 1111	20,328	12,244	79 @ 592
E.T. #1	C 28-25N-2W	4	7170	9-19-83	6643-7025	96 @ 5219	7747-8033	18 @ 1833	19,864	8,052	80 @ 420
Wright Way #1	C 2-24N-2W	6	7329	9-29-83	6760-7072	51 @ 6000	7865-8141	27 @ 2000	33,891	21,227	127 @ 752
Mother Lode #1	H 3-24N-2W	7	7333	9-2-83	6765-7070	63 @ 5190	7861-8108	15 @ 2200	52,569	28,185	294 @ 591
Native Son #2	N 27-25N-2W	10	7329	11-18-83	6802-7485	233 @ 1882	7886-7977	58 @ 3824[F]	30,540	19,587	535 @ 816
Full Sail #1	O 29-25N-2W	13	7119	6-15-84	6745-7409	216 @ 1444	[E]		-0-	-0-	81 @ 1442
Native Son #1	A 34-25N-2W	14	7320	6-7-84	6765-7443	198 @ 1636	[E]		5,927	4,830	312 @ 1603
High Adventure #1	A 33-25N-2W	--	7214	Location							
Full Sail #2	I 28-25N-2W	--	7263	Location							
Northwest Exploration											
Gavilan #1	A 26-25N-2W	1	7467	3-21-82	6821-7562	62 @ 8790[B]	7879-8026	[B]	41,084[I]	234,498[I]	94 @ 2430
Gavilan #1E[C]	E 26-25N-2W	5	7319	7-23-83	6804-7366	32 @ 11700	7822-7918	10.2@3400	11,811[I]	47,656[I]	29 @ 8519
Northwest Pipeline											
Rucker Lake #1	G 23-25N-2W	--	7309	Location							
Rucker Lake #2	K 24-25N-2W	9	7396	8-26-83	6825-7484	193 @ 1200	--	--	37,051[I]	23,386	148 @ 605
Rucker Lake #3	L 25-25N-2W	8	7408	8-10-83	6808-7538	145 @ 2089	--	--	30,171[I]	34,899	112 @ 1245
Rucker Lake #4	J 25-25N-2W	--	7448	Location							
Mesa Grande Resources											
Gavilan-Howard #1[G]	F 23-25N-2W	11	7294	4-23-84	6659-7370	75 @ 36160	7665-7849	83 @ 29699[G]	2,308	16,190[K]	192 @10,016[K]
Brown #1	N 17-25N-2W	17	7196	Waiting on Completion - 7" casing @ 8300'							
Mallon Oil											
Ribeyowids Fed #1	P 2-25N-2W	--		Location							
Southland Royalty											
Hawk Federal #2	C 35-25N-2W	12	7331	3-25-84	6766-7448	215 @ 2447	7832-7914	Tst water	1,806	1,472	196 @ 2816[J]
Hawk Federal #3	K 35-25N-2W	--		Location							
E. Alex Phillips (also known as Mesa Grande)											
Gavilan #2	J 26-25N-2W	15	7416	Completing	6872-7127	Testing	7902-7998	Testing[H]			
Dugan Production Corp.											
Lindrith #1	O 36-25N-2W	--	7432	Location							
Tapacitos #3	D 36-26N-2W	--	7818	Location							
Amoco Production Co.											
AmocoFed-Oso Cny#1	E 24-24N-2W	16	7457	Completing							
Oso Canyon Fed.B-1	F 11-24N-2W	--		Location							
Oso Canyon Fed.A-1	F 14-24N-2W	--		Location							

Application for Amendment to
Division Order R-7258
JEROME P. MCHUGH - JANET #1
Unit A, Sec. 27, T25N, R2W, NMPM
Rio Arriba County, New Mexico
Case No. 8308, Exhibit A5

FOOTNOTES

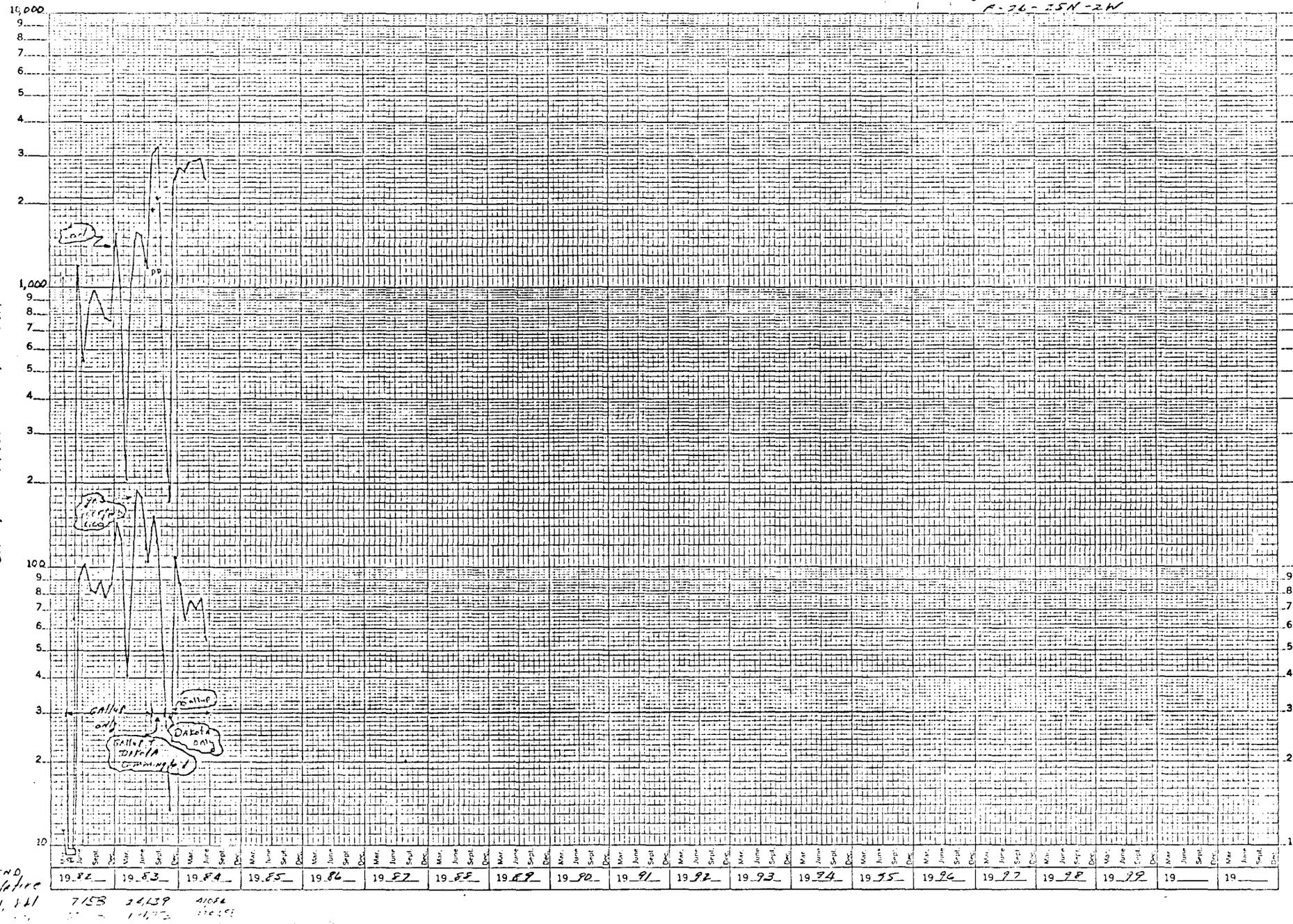
A Also referred to as "Gallup"
B Commingled with Dakota
C Cemented 7" casing @ 6070' & also completed Greenhorn 7653-7708' with IP of 9.8 BOPD with GOR = 2510
D Surveyed Locations:

Janet #1	790' FNL - 790' FEL	Gavilan #1	930' FNL - 910' FEL
Janet #2	1850' FSL - 790' FEL	Gavilan #1E	1850' FNL - 990' FWL
E.T #1	1100' FNL - 1600' FWL		
Wright Way #1	950' FNL - 1680' FWL	Rucker Lake #1	2270' FNL - 2275' FEL
Mother Lode #1	1730' FNL - 860' FEL	Rucker Lake #2	1420' FSL - 1520' FWL
Native Son #2	1020' FSL - 1670' FWL	Rucker Lake #3	1760' FSL - 940' FWL
Full Sail #1	980' FSL - 1730' FEL	Rucker Lake #4	2060' FSL - 1740' FEL
Native Son #1	790' FNL - 990' FEL		
High Adventure #1	790' FNL - 790' FEL	Gavilan-Howard #1	1850' FNL - 1651' FWL
Full Sail #2	1650' FSL - 790' FEL	Brown #1	850' FSL - 1850' FWL
		Ribeyowids Fed #1	860' FSL - 990' FEL
		Hawk Federal #2	910' FNL - 1840' FWL
		Hawk Federal #3	1835' FSL - 1690' FWL
		Gavilan #2	1828' FSL - 1846' FEL
		Lindrith #1	790' FSL - 1650' FEL
		Tapacitos #3	990' FNL - 790' FWL
		Amoco Fed-Oso Cny #1	990' FWL - 1650' FNL
		Oso Canyon Fed B-1	1660' FNL - 1840' FWL
		Oso Canyon Fed A-1	1660' FNL - 1790' FWL

E Completion postponed. Dakota penetrated and development similar to other completions.
F Perfs temporarily abandoned with NMOCD not authorizing downhole commingling with Mancos.
G Commingled Carlile/Greenhorn and Dakota. Greenhorn and Carlile completed 7531-7647 and tested 102.5 BOPD with GOR of 22,829 while Dakota tested 20-30 BOPD with GOR of Approx. 37,280 during completion.
H Also completed Greenhorn 7740 - 7805' - no tests reported.
I To 7-1-84 - 7/84 data not on file with NMOCD as of 9/1/84.
J C-116 test
K Total of Mancos, Greenhorn, Carlile & Dakota.

Total well Stream plotted

Northwest Exploration
Gaulfan No. 1
Gaulfan Mancos / Basin Dakota
A-36-31N-2W



K·E 20 YEARS BY MONTHS X 3 LOG CYCLES KEUFFEL & ESSER CO

47 6840

Gas Production - 100 mcf/month
Oil Production - bbl/month.

Year End Cumulative oil, bbl
7158 24,139 41052

ILLEGIBLE

Northwest Exploration - Gavilan No. 1

A-26-25N-2W

(Data 7/83 thru 12/83 from NMOCD Case #8042 File - Exh. 6, pt #6.)

	7/83	8/83	9/83	10/83	11/83	12/83	1/84	2/84
1	60 - 584	108 - 229	102 - 0	shut in	8 - 97	5 - 366	SI	
2	63 - 584	98 - 0	? - ?	shut in	5 - 97	87 - 244	SI	
3	49 - 559	68 - 0	111 - 0	100 - 224	5 - 97	88 - 501	SI	
4	50 - 533	83 - 226	95 - 0	125 - 0	7 - 82	78 - 501	SI	
5	47 - 546	101 - 0	132 - 241	shut in	5 - 97	102 - 482	113 - 189	
6	47 - 520	107 - 226	118 - 231	108 - 225	9 - 85	68 - 366	118 - 204	
7	43 - 616	86 - 0	81 - 0	- shut in	4 - 88	82 - 472	103 - 385	
8	40 - 565	97 - 0	115 - 0	Mancos + prod	7 - 88	77 - 449	110 - 385	
9	25 - 0	48 - 0	109 - 229	Dakota.	5 - 88	73 - 502	111 - 390	
10	•	107 - 227	118 - 241	③ 19 - 0	8 - 83	63 - 502	101 - 372	
11		92 - 0	105 - 217	③ 11 - 0	3 - 97	82 - 477	83 - 303	
12		95 - 227	110 - 0	③ 12 - 0	6 - 90	69 - 413	128 - 376	
13		99 - 227	102 - 0	③ 111 - 170	7 - 90	83 - 459	105 - 376	
14		77 - 0	82 - 0	③ 13 - 0	6 - 82	83 - 482	112 - 376	
15		83 - 0	98 - 0	③ 10 - 0	4 - 82	77 - 471	25 - 157	
16		13 - 226	126 - 229	5 - 0	4 - 88	83 - 475	120 - 363	
17	123 - 768	127 - 0	105 - 227	5 - 0	5 - 89	77 - 371	115 - 354	
18		108 - 228	110 - 0	5 - 0	8 - 85	68 - 439	107 - 354	
19		105 - 0	122 - 0	10 - 0	5 - 86	100 - 424	122 - 315	
20		98 - 0	96 - 230	8 - 0	8 - 88	84 - 424	82 - 514	
21		100 - 227	94 - 228	5 - 0	4 - 86	SI -	139 - 295	
22	174 - 666	97 - 0	97 - 0	5 - 0	4 - 97	67 - 450	100 - 303	
23	104 - 690	113 - 0	122 - 0	8 - 0	7 - 87	68 - 502	103 - 303	
24	82 - 602	54 - 461	119 - 239	5 - 0	5 - 86	95 - 427	123 - 242	
25	83 - 602	105 - 0	105 - 0	12 - 0	7 - 90	113 - 394	118 - 260	
26	68 - 609	109 - 0	108 - 236	5 - 0	5 - 97	70 - 390		
27		100 - 0	103 - 0	NR	5 - 97	88 - 401		
28	87 - 703	100 - 230	126 - 228	5 - 0	7 - 94	120 - 372		
29	112 - 232	91 - 0	103 - 0	8 - 0	7 - 88	95 - 385		
30	95 - 0	107 - 0	128 - 0	7 - 0	9 - 81	98 - 376		
31	98 - 0	87 - 227		NR		98 - 332		
32								

Mancos only - Permitted - Shut in

Commingled Mancos + Dakota

Mancos only

Dakota only

Commingled Mancos + Dakota

Mancos only

Dakota only

Commingled Mancos + Dakota

Mancos only

Mancos + Dakota prod

MANCOS ONLY -(1st production in 3/82 thru 7/27/83)

1982- 161 day Avg=44 BOPD+ 382 MCFD (GOR=8677)
1/83- 27 day Avg=63 BOPD+ 576 MCFD (GOR=9143)
2/83- 22 day Avg=49 BOPD+ 630 MCFD (GOR=12857)
3/83- 31 day Avg=41 BOPD+ 812 MCFD (GOR=19805)
4/83- 28 day Avg=67 BOPD+534 MCFD (GOR=7970)
5/83- 31 day Avg=51 BOPD+605 MCFD (GOR=11863)
6/83- 30 day Avg=51 BOPD+597 MCFD (GOR=11706)
7/1-27/83 15day Avg=71BOPD+563MCFD(GOR=7930)

MANCOS & DAKOTA COMMINGLED (7/28 thru 10/9/83)

7/28 thru 8/31/83 - 35 day Avg= 98 BOPD + 488 MCFD (GOR=4980) (gas volumes from C-115)
9/83 - 29 day Avg= 108 BOPD + 385 MCFD (GOR=3565) (gas volumes from C-115)
10/1 thru 9/83 - 3 day Avg = 111 BOPD + 225 MCFD (GOR=2027)

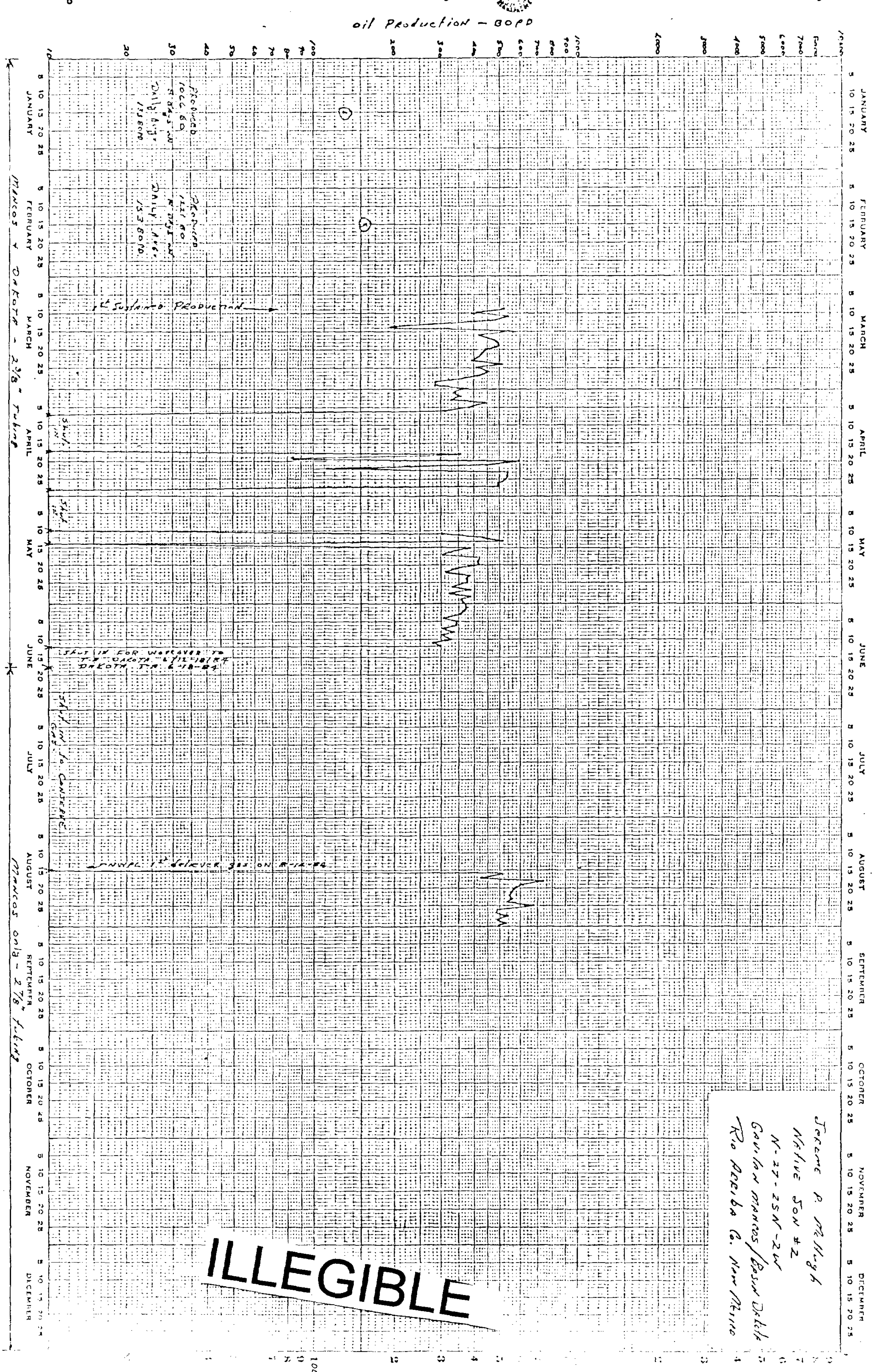
DAKOTA ONLY 10/10 thru 11/30/83

10/10 thru 31/83 - 20 day Avg = 13 BOPD + 131 MCFD (GOR=10,077) (gas volumes from C-115)
11/83 - 30 day Avg = 6 BOPD + 88 MCFD (GOR=14,728) (C-115 gas volumes=44 MCFD, GOR from C-115 = 7772)

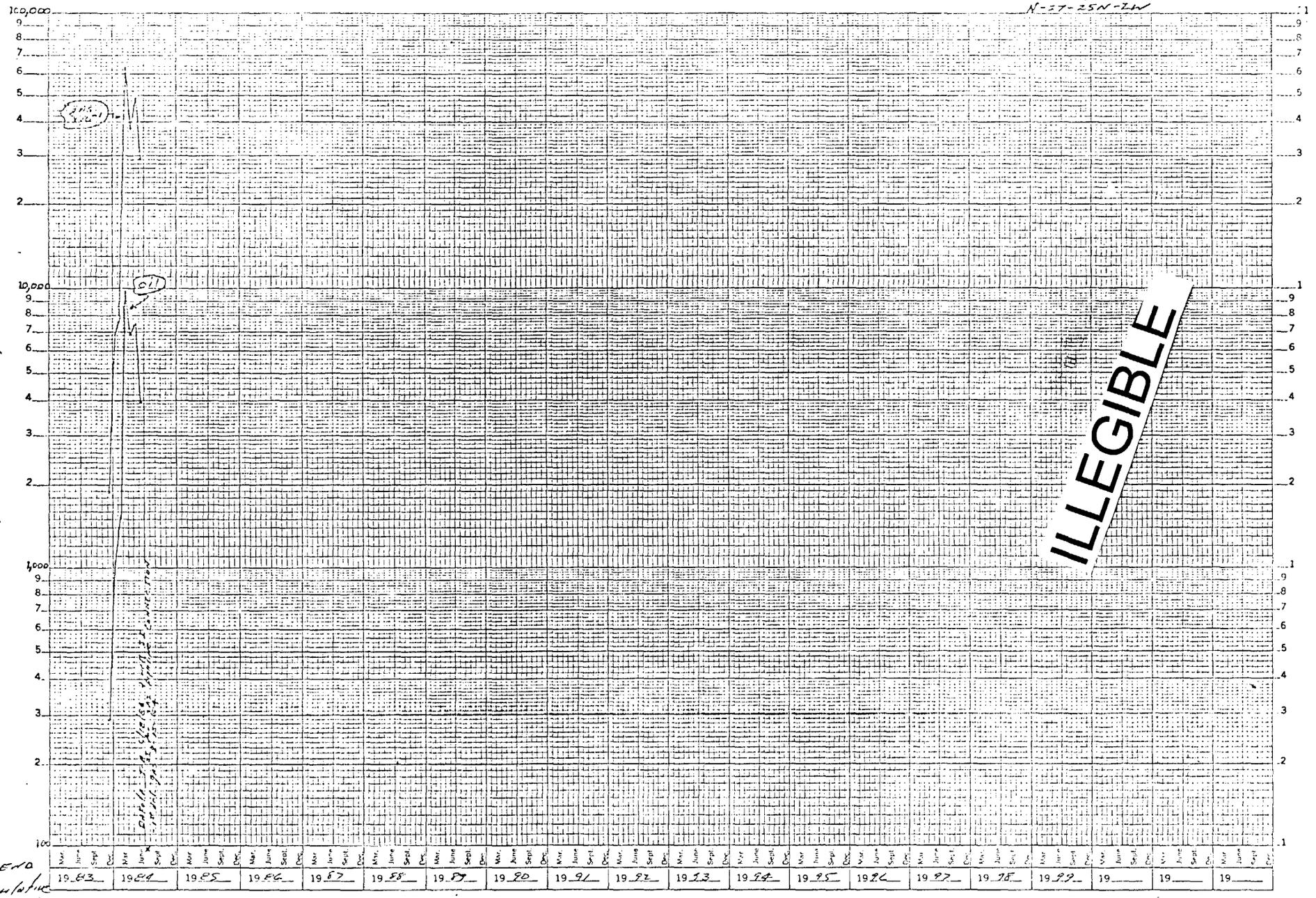
MANCOS ONLY 12/1/83 thru current

12/83- 30 day Avg= 80 BOPD+366 MCFD (GOR=4429)
1/84- 27 day Avg=100 BOPD+320 MCFD (GOR=3192)
2/84- 22 day Avg=119 BOPD+293 MCFD (GOR=2469)
3/84- 31 day Avg= 92 BOPD+243 MCFD (GOR=2642)
4/84- 28 day Avg=103 BOPD+250 MCFD (GOR=2428)
5/84- 31 day Avg= 97 BOPD+246 MCFD (GOR=2552)
6/84- 30 day Avg= 82 BOPD+182 MCFD (GOR=2223)

NO. 4118. ONE YEAR BY DAYS X 3 3-INCH CYCLES RATIO RULING. CODEX BOOK COMPANY, INC. NORWOOD, MASSACHUSETTS



Jerome A. McHugh
Native Sons #2
Gallian Martins / Basin Dakota
N-27-25N-7W



K·E 20 YEARS BY MONTHS X 3 LOG CYCLES
KEUFFEL & ESSER CO. MADE IN U.S.A.

47 6840

Gas production - mcf/month
Oil production - bbl/month

Year end cumulative oil, bbl -