

PAN AMERICAN PETROLEUM CORPORATION

OIL AND GAS BUILDING

P. O. BOX 1410

FORT WORTH, TEXAS—76101

DEC 1 1969

D. L. RAY
DIVISION ENGINEER

November 28, 1969

File: PEH-573-986.510.1

Subject: Downhole Commingling
Blinebry and Drinkard Pools
Lea County, New Mexico

Bue 12/21
DHC - 14
15
16
17

New Mexico Oil Conservation Commission (2)
P. O. Box 871
Santa Fe, New Mexico 76501

Attn: Mr. A. L. Porter, Jr.
Secretary-Director

Gentlemen:

In accordance with the provisions of Order No. R-3845 (Case #4104) Pan American Petroleum Corporation respectfully requests administrative approval for downhole commingling of the Blinebry and Drinkard Pools in the following wells:

DHC-14 Southland Royalty "A" Well #5 (Q-4-21-37)

DHC-15 State "S" Well #1 (C-32-22-38)

State "C" Tract 12 Well #3 (E-16-21-37)

DHC-16 State "C" Tract 12 Well #7 (D-16-21-37)

DHC-17

Attachments 1 through 4 are plats of the immediate areas of

these wells with the wells themselves designated by red arrows.

Attachment 5 is a tabulation showing pertinent data concerning well capacities, bottom hole pressures, and lift method for both the Blinebry and Drinkard zones in each of these wells. The lowest Drinkard perforations in each of these wells fall within the 6,000 - 6,999 foot category as provided for in Rule 303-C-1-b. As shown on Attachment 5 and Attachments 6 through 9 (NMOCC Form C-116; well test within 30 days) the combined capacity of the Blinebry and Drinkard in each of these wells does not exceed the maximum allowable rate provided for in Rule 303-C-1-b of 40 BOPD.

The bottom hole pressures tabulated on Attachment 5 are also shown on Attachments 10 through 13 (NMOCC Form C-124). It should be noted that, except in the case of the State "C" Tract 12 Well #3, these bottom hole pressures are in relatively close agreement. Although the Drinkard pressure in State "C" Tract 12 Well #3 is some 227 psi higher at the

Drinkard datum than the Blinebry pressure at Blinebry datum, when the Drinkard pressure is converted to Blinebry datum, there is only a 9 psi difference between the two zones. (Drinkard pressure at Blinebry datum = 240 psi.) Of course, as we intend to maximize productivity of each of these wells and the combined zones will be pumped at capacity, they will be continually pumped off and there would be very little possibility of cross flow between zones even if there were slight pressure differentials between the two zones. It should be noted that the Drinkard bottom hole pressures in the Southland Royalty "A" Well #5 and the State "S" #1 were estimated based on pressures recently taken by the New Mexico Engineering Committee on two nearby wells. These nearby wells are designated on Attachments 9 and 10. The pressures were not obtained directly from the Drinkard in our two wells as these zones are pumping and the cost to pull rods and run a bomb would have been prohibitive when compared to the marginal rate of production from these zones.

You will notice from Attachment 5 that only in the Southland Royalty Well #5 are both zones pumping. In the other three wells one zone is flowing with the other pumping. As mentioned in Rule 303-C-1-c, special consideration may be given wells in which one zone pumps and one zone flows. The flowing zone in each of the three wells has a very low limited producing capacity. (Maximum capacity - State "S" #1 - Blinebry = 9 BOPD.) These zones are flowing due to their high gas-oil ratio. As shown on Attachment 5, the bottom hole pressures are very low and could not cause the well to flow without the aid of the high gas-oil ratio. Should our application be granted, each of the wells producing from the combined Blinebry-Drinkard zones will be artificially lifted.

As mentioned above, the producing rate of each of the zones in all of these wells is marginal at best. They are, in fact, approaching their economic limit, and the granting of this request will provide for the production of the maximum amount of reserves from each zone. Due to the decreased operating expenses, which would be achieved by producing these zones together, a much lower economic limit will be reached; thereby providing for an incremental increase in ultimate recovery from the Blinebry and Drinkard over that possible under current operations.

In none of these wells does either zone produce more water than the oil limit for the combined zone. In fact, the maximum daily water producing rate from any of these wells is 11 BWPD.

The Blinebry-Drinkard production from each of these wells is currently being commingled at the surface. The date and Order No. giving approval for surface commingling is shown on Attachment 14, as is the same type data regarding multiple completion approval. Our continual surveillance of surface facilities has shown no indication of the formation of precipitates or other detrimental effects resulting from the commingling of the fluids from these pools. It is, therefore, obvious that the fluids are compatible.

Attachment 15 gives a description of the fluid characteristics from each zone in each well and shows that there will be no decrease in value of either pool's production caused by the commingling of the fluids. As mentioned earlier, these fluids are now commingled at the surface prior to sales, so there would be of course no decrease in value caused by commingling downhole. The ownership of each of these zones in each well is common throughout.

November 28, 1969

At the current time we know of no plans for secondary recovery in the immediate area of the leases whereon these wells are located. Should secondary recovery operations be initiated, however, we do not feel that the prior downhole commingling of these zones will, in any way, jeopardize the efficiency or success of these operations. As a matter of interest, in several of our other areas of operations we are commingling two separate zones which are both being actively waterflooded on the same lease. We feel that, in these cases, the efficiency of our flood is actually being increased. Of course, we have no intentions of doing this in the case of the subject wells of this application. As we have shown above, these fluids are compatible and no detrimental affects on the reservoir will result from downhole commingling and as the pressures of each of these zones are similar and the well will be maintained in a pumped off condition thereby not allowing cross flow between zones, no effect on possible future secondary recovery operations can be anticipated. Again, it should be emphasized that production from each of these zones in each well is, at best, marginal and the current bottom hole pressures are low.

Attachments 16 through 23 are decline curves for each zone in each well on which a steady rate of decline is shown. Additionally, we have attached a copy of our notice to offset operators of our application.

Yours very truly,



WCW:kp

cc: New Mexico Oil Conservation Commission
P. O. Box 1980
Hobbs, New Mexico
w/attachments

30 R-38 E

91

WESIERN OIL

Higgins
GULF

01

01

GULF

02

01

Higgins
GULF

Attachment #2

02

01

GULF

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

01

Higgins
GULF

A.M. BRINLEY
TEXACO

02

05

01

dual

R. 37 E. 5

Attachment #4

OWAO
3577 #49
677713 G625P3D
677612 5800 TR
PHST 100 - 32/0 430W
1633 T 430 14-66
505 DP
5302

35-#6

TA-2
S120 70°
PAN AM
PH 13720
H.3 P.
16046
(7204C)
Dwarf

Harry Leonsis
Chairman

3364
①-2460
2500-
2500-
2500-

4) 47
P-1630
FIG. 46-5942.
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
229
230
231
232
233
234
235
236
237
238
239
239
240
241
242
243
244
245
246
247
248
249
249
250
251
252
253
254
255
256
257
258
259
259
260
261
262
263
264
265
266
267
268
269
269
270
271
272
273
274
275
276
277
278
279
279
280
281
282
283
284
285
286
287
288
289
289
290
291
292
293
294
295
296
297
298
299
299
300
301
302
303
304
305
306
307
308
309
309
310
311
312
313
314
315
316
317
318
319
319
320
321
322
323
324
325
326
327
328
329
329
330
331
332
333
334
335
336
337
338
339
339
340
341
342
343
344
345
346
347
348
349
349
350
351
352
353
354
355
356
357
358
359
359
360
361
362
363
364
365
366
367
368
369
369
370
371
372
373
374
375
376
377
378
379
379
380
381
382
383
384
385
386
387
388
389
389
390
391
392
393
394
395
396
397
398
399
399
400
401
402
403
404
405
406
407
408
409
409
410
411
412
413
414
415
416
417
418
419
419
420
421
422
423
424
425
426
427
428
429
429
430
431
432
433
434
435
436
437
438
439
439
440
441
442
443
444
445
446
447
448
449
449
450
451
452
453
454
455
456
457
458
459
459
460
461
462
463
464
465
466
467
468
469
469
470
471
472
473
474
475
476
477
478
479
479
480
481
482
483
484
485
486
487
488
489
489
490
491
492
493
494
495
496
497
498
499
499
500
501
502
503
504
505
506
507
508
509
509
510
511
512
513
514
515
516
517
518
519
519
520
521
522
523
524
525
526
527
528
529
529
530
531
532
533
534
535
536
537
538
539
539
540
541
542
543
544
545
546
547
548
549
549
550
551
552
553
554
555
556
557
558
559
559
560
561
562
563
564
565
566
567
568
569
569
570
571
572
573
574
575
576
577
578
579
579
580
581
582
583
584
585
586
587
588
589
589
590
591
592
593
594
595
596
597
598
599
599
600
601
602
603
604
605
606
607
608
609
609
610
611
612
613
614
615
616
617
618
619
619
620
621
622
623
624
625
626
627
628
629
629
630
631
632
633
634
635
636
637
638
639
639
640
641
642
643
644
645
646
647
648
649
649
650
651
652
653
654
655
656
657
658
659
659
660
661
662
663
664
665
666
667
668
669
669
670
671
672
673
674
675
676
677
678
679
679
680
681
682
683
684
685
686
687
688
689
689
690
691
692
693
694
695
696
697
698
699
699
700
701
702
703
704
705
706
707
708
709
709
710
711
712
713
714
715
716
717
718
719
719
720
721
722
723
724
725
726
727
728
729
729
730
731
732
733
734
735
736
737
738
739
739
740
741
742
743
744
745
746
747
748
749
749
750
751
752
753
754
755
756
757
758
759
759
760
761
762
763
764
765
766
767
768
769
769
770
771
772
773
774
775
776
777
778
779
779
780
781
782
783
784
785
786
787
788
789
789
790
791
792
793
794
795
796
797
798
799
799
800
801
802
803
804
805
806
807
808
809
809
810
811
812
813
814
815
816
817
818
819
819
820
821
822
823
824
825
826
827
828
829
829
830
831
832
833
834
835
836
837
838
839
839
840
841
842
843
844
845
846
847
848
849
849
850
851
852
853
854
855
856
857
858
859
859
860
861
862
863
864
865
866
867
868
869
869
870
871
872
873
874
875
876
877
878
879
879
880
881
882
883
884
885
886
887
888
889
889
890
891
892
893
894
895
896
897
898
899
899
900
901
902
903
904
905
906
907
908
909
909
910
911
912
913
914
915
916
917
918
919
919
920
921
922
923
924
925
926
927
928
929
929
930
931
932
933
934
935
936
937
938
939
939
940
941
942
943
944
945
946
947
948
949
949
950
951
952
953
954
955
956
957
958
959
959
960
961
962
963
964
965
966
967
968
969
969
970
971
972
973
974
975
976
977
978
979
979
980
981
982
983
984
985
986
987
988
989
989
990
991
992
993
994
995
996
997
998
999
999
1000

50-474
 TIDEWATER **LOCKHART A-17 GAS UNIT**
 Dual 4WD 199220
 3500cc 240A 4WD
 1974-6654 (6) 653
 1974-7800 C2000TP 653
 1974-7800 F578 MCF10 653
 1974-7800 12.15.97 653
 1974-7800 653
 1974-7800 653
 1974-7800 653
 1974-7800 653
 1974-7800 653

3666
G-4721
D-70
P-500 T (U.D.)
P-537 1/4 G1
3-1-61
P-523 T. G10.
P-502 T. G10.
P-502 T. G10.

9990
3597 MID-CONT. 15
(O-4721
D-70
P-500 T (U.D.)
P-537 1/4 G1
P-523 T. G10.
P-502 T. G10.
P-502 T. G10.

SECURITY
S.A.
5446
6

A. M. VOR
REPOZIT

- Blurry
- Blurry gas
- Full zone
- Convex
- Dry hand

ATTACHMENT 5

<u>Well</u>	<u>Pools</u>	<u>Test</u> (BOPD X BWPD X GOR)	<u>Bottom Hole Pressure (psi)</u>	<u>Datum</u>	<u>Remarks</u>
Southland Royalty #5	Blinebry Drinkard	6 x 2 x 2167 5 x 2 x 4200	464 501	(-2400) (-3050)	Pumping - Oil Well Pumping - Oil Well
State "S" #1	Blinebry Drinkard	9 x 2 x 25,111 9 x 1 x 3222	610 737	(-2400) (-3050)	Flowing - Oil Well Pumping - Oil Well
State "C" Tr. 12 #3	Blinebry Drinkard	4 x 2 x 23,150 3 x 1 x 16,100	249 476	(-2400) (-3050)	Pumping - Oil Well Flowing - Oil Well
State "C" Tr. 12 #7	Blinebry Drinkard	12 x 11 x 11,750 3 x 0 x 14,666	680 600	(-2400) (-3050)	Pumping - Oil Well Flowing - Oil Well

Attachment #6

NEW MEXICO OIL CONSERVATION COMMISSION
GAS - OIL RATIO TESTS

NEW MEXICO OIL CONSERVATION COMMISSION GAS-OIL RATIO TESTS

C-116

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 13.025 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.

1818:16

卷之三

REKINT

111

Attachment #7
NEW MEXICO OIL CONSERVATION

**NEW MEXICO OIL CONSERVATION COMMISSION
GAS-OIL RATIO TESTS**

C-116

Operator Pan American Petroleum Corporation	Address Box 68, Hobbs, New Mexico	Blinebry - Drinkard										County Lea						
		LOCATION			TEST - (X)			TYPE OF TEST - (X)			SCHEDULED			COMPLETION				
LEASE NAME		WELL NO.	U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST	WATER BBL.S.	GRAV. OIL BBL.S.	OIL BBL.S.	GAS M.C.F.	GAS - OIL RATIO CU.FT./BBL.
State "S"		1	C	32	22	38												
Blinebry							11-2-69	F				12	24	2	9	226	25,111	
Drinkard							11-3-69	P				12	24	1	9	29	3,222	

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

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

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.

卷之三

卷之三

AREA ENGINEER
(Tutor)

11-18-60

11-10-09

Attachment # 8
NEW MEXICO OIL CONSERVATION
GAS OR RATIO TEST

**NEW MEXICO OIL CONSERVATION COMMISSION
GAS - OIL RATIO TESTS**

C116 Revised 1-1-65

Pan American Petroleum Corporation
Operator

Address P. O. Box 68, Hobbs, New Mexico

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.

Mall original and one copy of Rule 301 and appropriate pool rules.

1

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

Jeanne E. Litch
(Signature)

AREA ENGINEER

(Title)
November 21, 1969

Attachment #9

NEW MEXICO OIL CONSERVATION COMMISSION
GAS - OIL RATIO TESTS

C-116
Revised 1-1-65

Operator Address	Pool LEASE NAME	Blinebry - Drinkard				TYPE OF TEST - (X)	DATE OF TEST	DAILY ALLOW- ABLE	LENGTH OF TEST HOURS	PROD. DURING TEST	Completion <input type="checkbox"/>	Special <input checked="" type="checkbox"/>	County Lea	
		WELL NO.	U	S	T	R	STATUS	CHOKE SIZE	TBG. PRESS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS - OIL RATIO CU.FT/BBL	
Pan American Petroleum Corporation P. O. Box 68, Hobbs, New Mexico	State "C" Tract 12	7	D	16	21	37	11-7-69	P		11	12	141	11,750	
	Blinebry						11-8-69	F	100	0	3	44	14,666	
	Drinkard													

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.

James E. Welsh
(Signature)
AREA ENGINEER

(Title)
11-24-69
(Date)

Attachment #10

NEW MEXICO OIL CONSERVATION COMMISSION

Form C-124

Revised 1-1-65.

RESERVOIR PRESSURE REPORT

TYPE OF REPORT - (X)

Initial Completion

Special

General Survey

Pan American Petroleum Corporation		Pool		Drinkard - Blinberry		County Lea		Date 11-12-69									
Address Box 68, Hobbs, N.M.		Producing Formation		Oil Gradient		Water Gradient		Gas Gravity									
LEASE	WELL NO.	LOCATION		OIL ELEV. OR GAS (ft.)	DATE TESTED	SHUT-IN TBG. PRESS.	BOMB TEST DATA	SONIC INSTRUMENT TEST DATA*									
		U	S	T	R			TEST TEMP. °F	PROD. TEST (BBLs./DAY)	Liquid LEVEL	Liquid GRADIENT PSI/FT.	WT. OF LIQUID COL.	WT. OF GAS COL.	CSG. PRESS. PSI	PRESS. AT DATUM		
Southland Royalty "A" (Blinberry)	5	5	B	9	21	3483 RDB	0	10-29-69 24					5518	.38	139	53	272
SHELL Oil Co. Livingston (Drinkard)	5	U	3	21	37	3476 RDB	0	11-5-69 24	6400	499						501	464

SE Offset to
Southland Royalty "A"
No. 5

Pressure Taken by New Mexico Engineering Committee

All depths plus or minus sea level; all pressures psi; Bomb shall be calibrated frequently enough against a dead weight tester to ensure an accuracy of one per cent; gas gravity shall be determined by analysis; liquid level shall be feet above datum plane. SEE RULE 302.

* Well shall be produced at least 24 hours prior to shutting in for sonic test.

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

AREA SUPERINTENDENT
(Title)

(Signature)

11-12-69
(Date)

Form

Form C-124
Revised 1-1-65

RESERVOIR PRESSURE REPORT

NEW MEXICO OIL CONSERVATION COMMISSION

Operator	Pan American Petroleum Corporation	Pool	Blinebry & Drinkard	County	Lea	Date
Address	P. O. Box 68, Hobbs, New Mexico	Producing Formation	Oil Gradient	Water Gradient	Gas Gravity	
LEASE	WELL NO.	LOCATION	OIL ELEV. (ft.)	psi./ft.	psi./ft.	
	U S T R					
State "S" (Blinebry)	1	C 32 22 38	3400 RDB	10-28-69	24 470	5500 100
Western Oil Fields, Inc. Drinkard	1	I 30 22 38		11-7-69	48	6200 631
Locations Northwest of State "g" No. 1 Measured by New Mexico Engineering Committee						737
						610

All depths plus or minus sea level; all pressures psi; Bomb shall be calibrated frequently enough against a dead weight tester to ensure an accuracy of one per cent; gas gravity shall be determined by analysis; liquid level shall be feet above datum plane. SEE RULE 302.

* Well shall be produced at least 24 hours prior to shutting in for sonic test.

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

ADDITIONAL FUNDING NEEDED

1000

11

11-18-69

Attachment #12

NEW MEXICO OIL CONSERVATION COMMISSION

NEW MEXICO OIL CONSERVATION COMMISSION

Conclusion

Conclusion

104

104

Survey

Form C-124
Revised 1-1-65

RESERVOIR PRESSURE REPORT

Operator Address	Pan American Petroleum Corporation P. O. Box 68, Hobbs, New Mexico	Pool Drinkard										County Lea		Date 11-21-69	
		Producing Formation Drinkard			Oil Gradient		Water Gradient		Gas Gravity		Datum Plane Drinkard -3050		Blinebry -2400		
LEASE No.	WELL No.	LOCATION	OIL (O)	ELEV. (ft.)	DATE TESTED	Z IN INCHES	SHUT- IN TBG. PRESS.	B.H. TEST DEPTH	OB- SERVED TEMP. °F	PROD. TEST (BBLs./DAY)	Liquid LEVEL	WT. OF LIQUID COL. PSI	WT. OF GAS COL. PSI	C.S.G. PRESS. AT DATUM	
State "C" Tr. 12 Drinkard	3	E 16 21 37	3481	0	10-30-69	24	360	6331	110	460					476
State "C" Tract 12 Blinebry	3	E 16 21 37	3481	0	10-30-69	24	(Sonic)	110			5449	0.41	177	13	59

All depths plus or minus sea level; all pressures psi; Bomb shall be calibrated frequently enough against a dead weight tester to ensure an accuracy of one per cent; gas gravity shall be determined by analysis; liquid level shall be feet above datum plane. SEE RULE 302.

Well shall be produced at least 24 hours prior to shutting in for sonic test.

AREA ENGINEER

卷之三

ATTACHMENT 14

Surface Commiring Data

Order #	PC-89	April 19, 1962
Order #	PC-232	September 24, 1964
Order #	PC-55	January 11, 1962
Order #	PC-55	January 11, 1962

Multiple Completion Data

Order #	DC-105	April 24, 1954
Order #	MC-1160	March 6, 1962
Order #	MC-1784	August 10, 1967
Order #	MC-1136	January 8, 1962

ATTACHMENT 15

FLUID CHARACTERISTICS

<u>WELL</u>	<u>POOL</u>	<u>TYPE FLUID</u>	<u>GRAVITY (°API)</u>
Southland Royalty "A" #5	Blinebry Drinkard	Sweet Crude Sweet Crude	42.5 37.8
State "S" #1	Blinebry Drinkard	Sweet Crude Sweet Crude	42 40
State "C" Tract 12 Well #3	Blinebry Drinkard	Sweet Crude Sweet Crude	34.8 37.5
State "C" Tract 12 Well #7	Blinebry Drinkard	Sweet Crude Sweet Crude	34.8 37.5

VALUE OF COMMINGLED PRODUCTION

Southland Royalty "A" #5

- a) Combined crude gravity = 40° API
- b) Mobil's Intermediate Sweet Crude Top Posting = \$3.31/bbl. (40° API to 44.9° API)
- c) Blinebry Gravity = 42.5° API = \$3.31/bbl.) Mobil Intermediate Posting
Drinkard Gravity = 37.5° API = \$3.25/bbl.)
- d) Value combined 40° API Gravity Blinebry-Drinkard Production
= \$3.31/bbl X 2 bbl. = \$6.62/2 bbls.

State "S" #1

- a) Combined Crude gravity = 41° API @ \$3.31/bbl.
- b) Mobil's Intermediate Sweet Crude Top Posting = \$3.51/bbl (40° API to 44.9° API)
- c) Blinebry Gravity = 42° API @ \$3.31/bbl.
Drinkard Gravity = 40° API @ \$3.31/bbl.

ATTACHMENT 15 (cont.)

State "C" Tract 12 Well #3

- a) Combined crude gravity = 36° API @ \$3.23/bbl.
- b) Blinebry Gravity = 34.8° API @ \$3.19/bbl.
- Drinkard Gravity = 37.5° API @ ~~\$3.25~~/bbl.

- c) Value combined 36° API Gravity Blinebry-Drinkard production
= \$3.23/bbl x 2 bbl. = \$6.46/2 bbl.

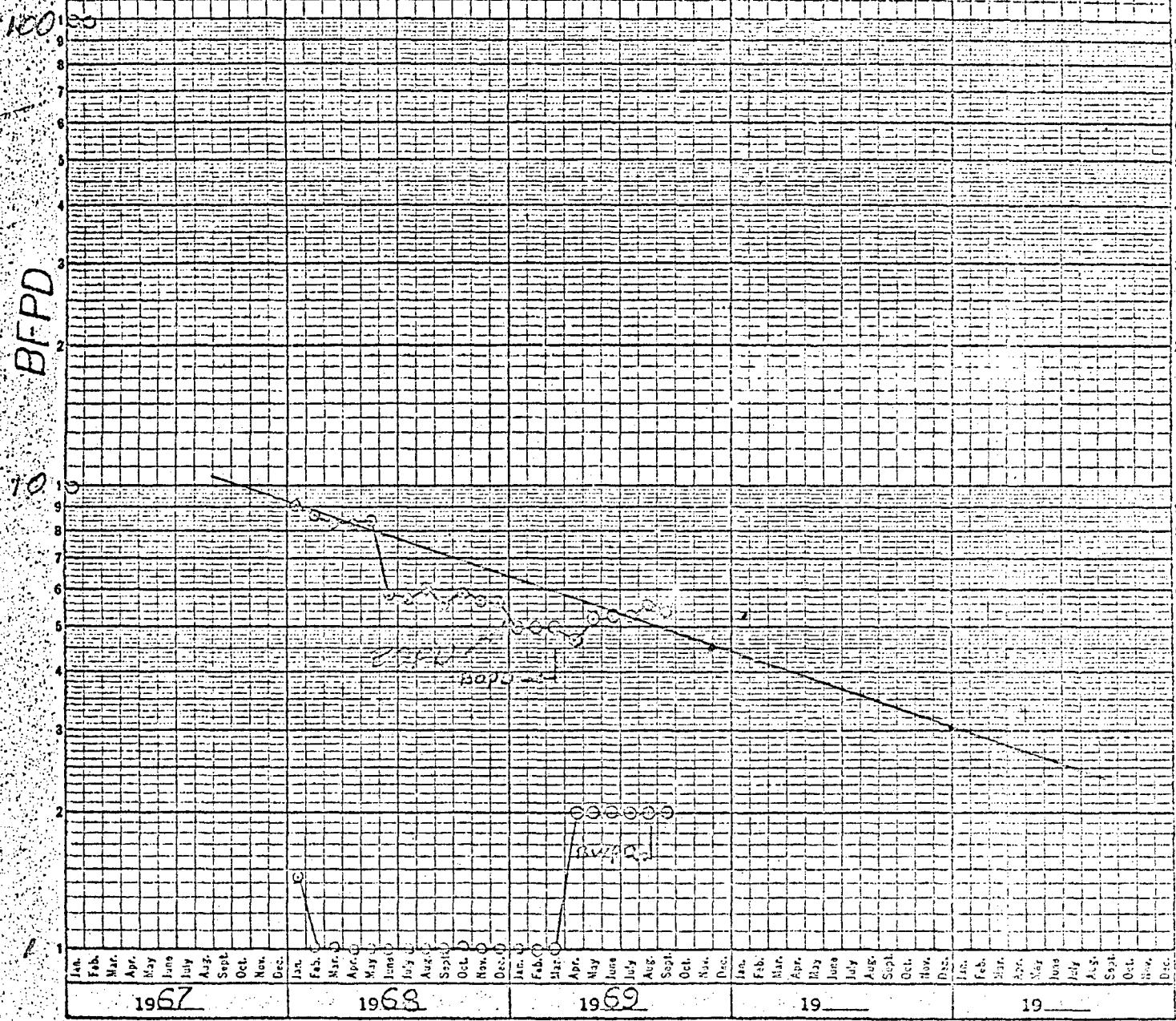
State "C" Tract 12 Well #7

- a) Combined crude gravity = 35.2° API @ \$3.22/bbl.
- b) Blinebry Gravity = 34.8° API @ \$3.19/bbl.
- Drinkard Gravity = 37.5° API @ ~~\$3.25~~/bbl.

- c) Value combined 35.2° API Gravity Blinebry-Drinkard production
= \$3.22/bbl x 2 bbl. = \$6.44/2 bbl.

PAN AMERICAN PET. CORP.
SOUTHLAND ROYALTY #105
DRINKARD FIELD

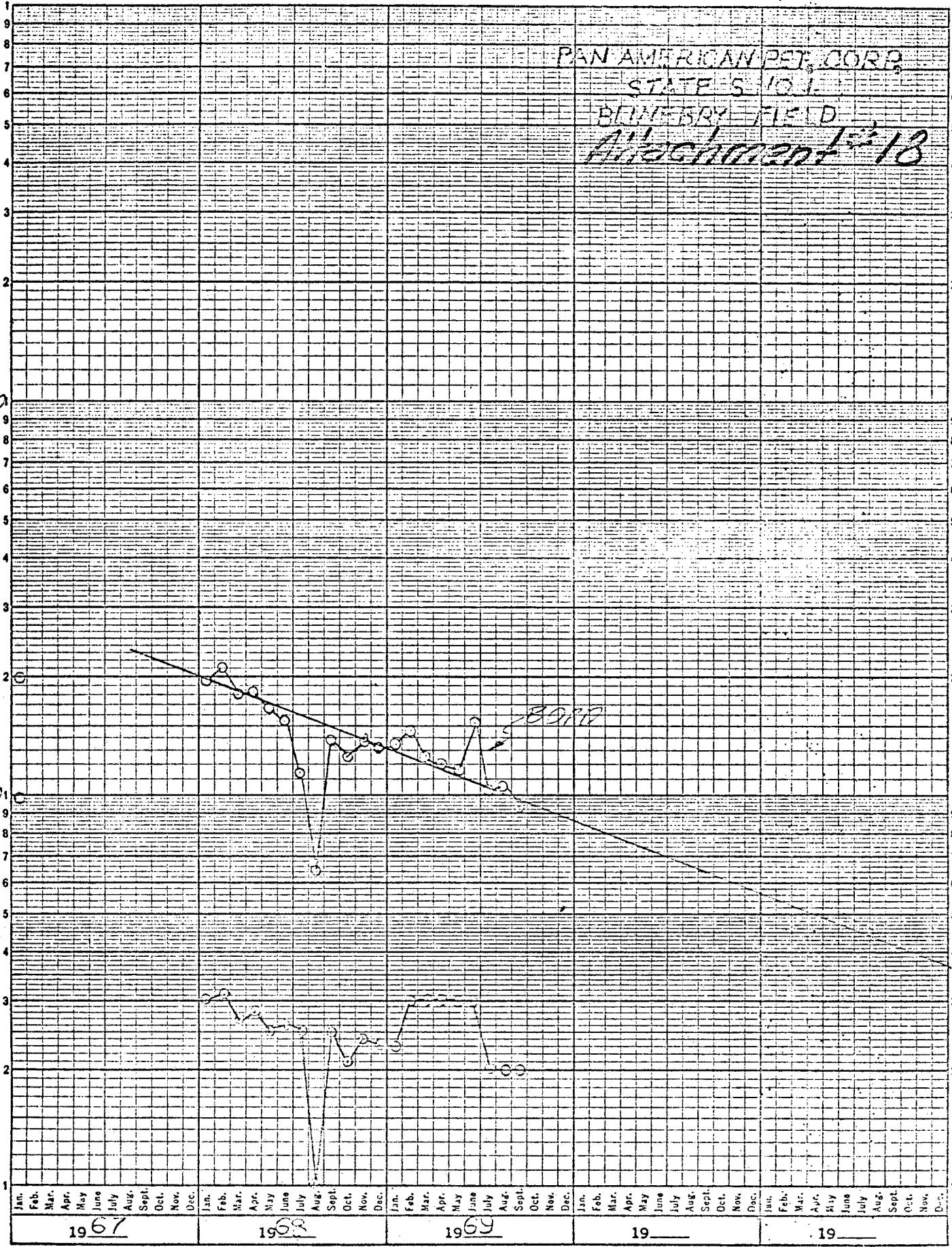
Attachment #17



K_ε 5 YEARS BY MONTHS 46 6693
MADE IN U.S.A.
KEUFFEL & ESSER CO.

BFPD

100



K-E 5 YEARS BY MONTHS 46 6693
MADE IN U.S.A.
X 3 LOG CYCLES
KEUFFEL & ESSER CO.

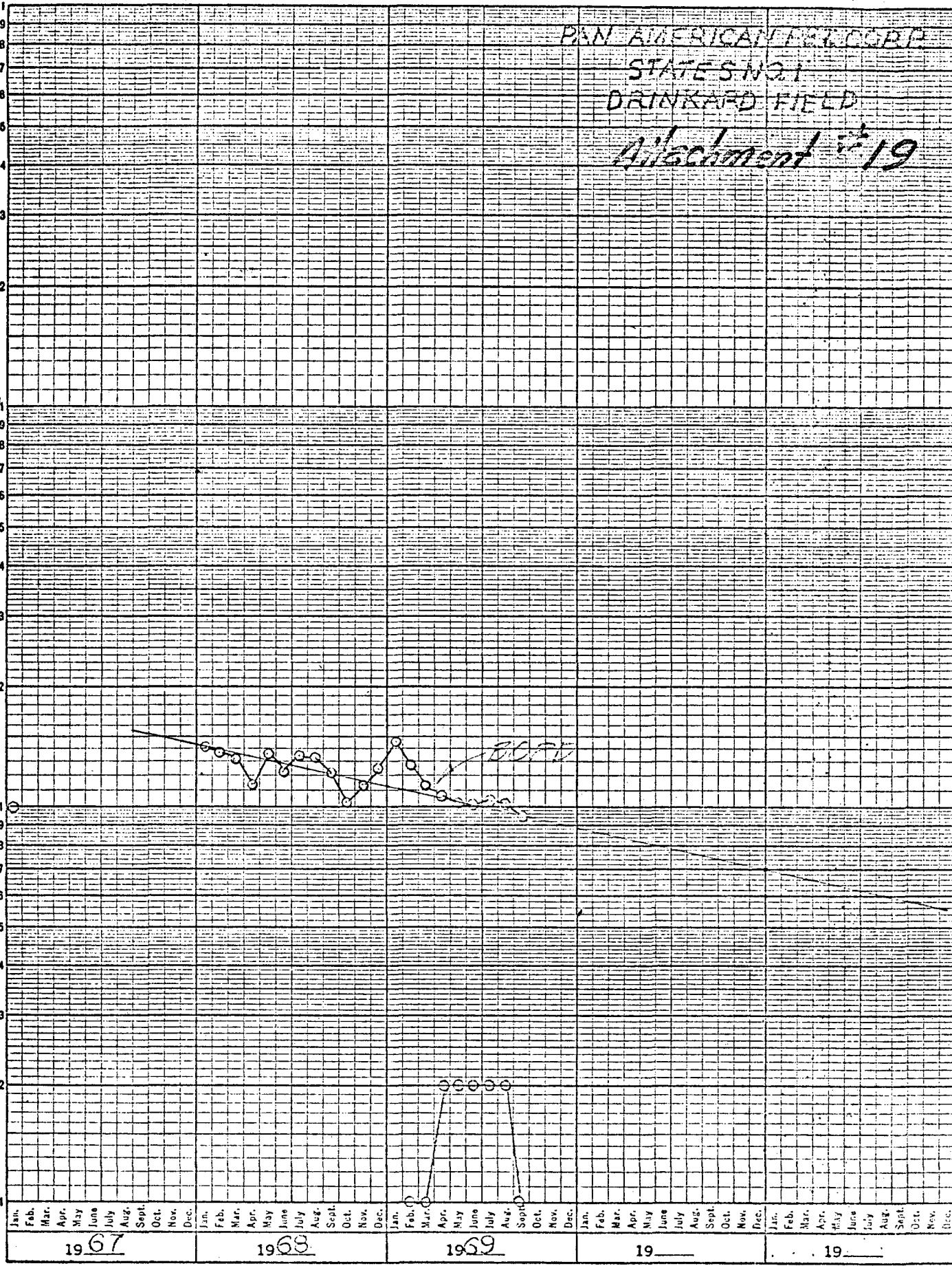
BFPD

100

10

2

1



KODAK 5 YEARS BY MONTHS 46 6693
X 3 LOG CYCLES MADE IN U.S.A.
KODAK KEUFFEL & ESSER CO.

BFPD

10

PAN AMERICAN PET CORP
STATE C-TRAST 12 NO 3

B LINBRY
Attachment #20

Month	Year	Series A	Series B
Jan	1967	8	8
Feb	1967	7	7
Mar	1967	9	9
Apr	1967	7	7
May	1967	9	9
Jun	1967	7	7
Jul	1967	9	9
Aug	1967	7	7
Sep	1967	9	9
Oct	1967	7	7
Nov	1967	9	9
Dec	1967	7	7
Jan	1968	9	9
Feb	1968	7	7
Mar	1968	9	9
Apr	1968	7	7
May	1968	9	9
Jun	1968	7	7
Jul	1968	9	9
Aug	1968	7	7
Sep	1968	9	9
Oct	1968	7	7
Nov	1968	9	9
Dec	1968	7	7
Jan	1969	9	9
Feb	1969	7	7
Mar	1969	9	9
Apr	1969	7	7
May	1969	9	9
Jun	1969	7	7
Jul	1969	9	9
Aug	1969	7	7
Sep	1969	9	9
Oct	1969	7	7

46-6693
MADE IN U.S.A.
6 YEARS BY MONTHS
X 3 LOG CYCLES
KEUFFEL & ESSER CO.

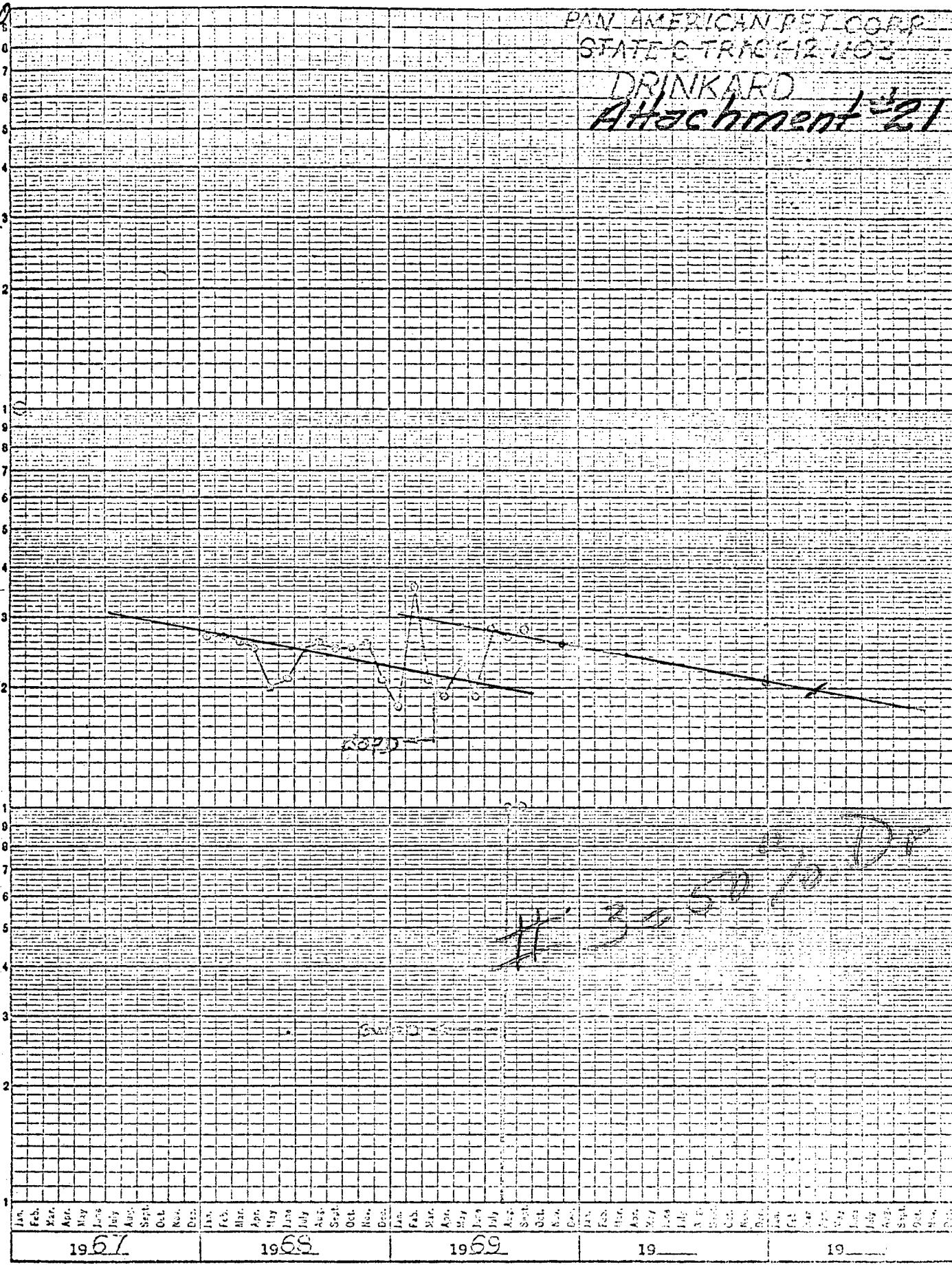
466693
MAG 14 U.S.A.

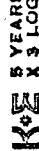
ARS BY MONTHS
LOG CYCLES
KEUFFEL & ESSER CO.

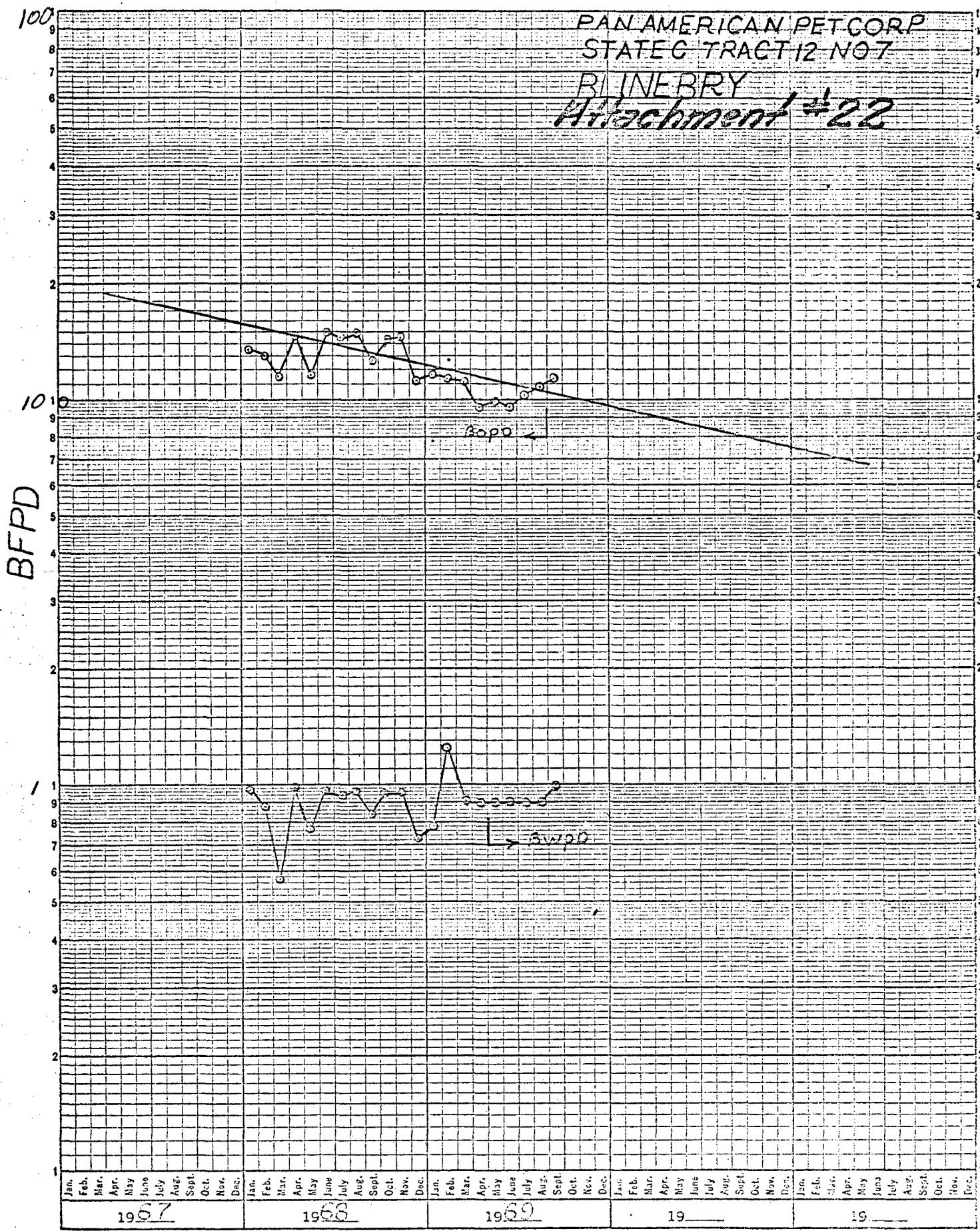
100

PAN AMERICAN PET CORP
STATE C TRAC HZ 103

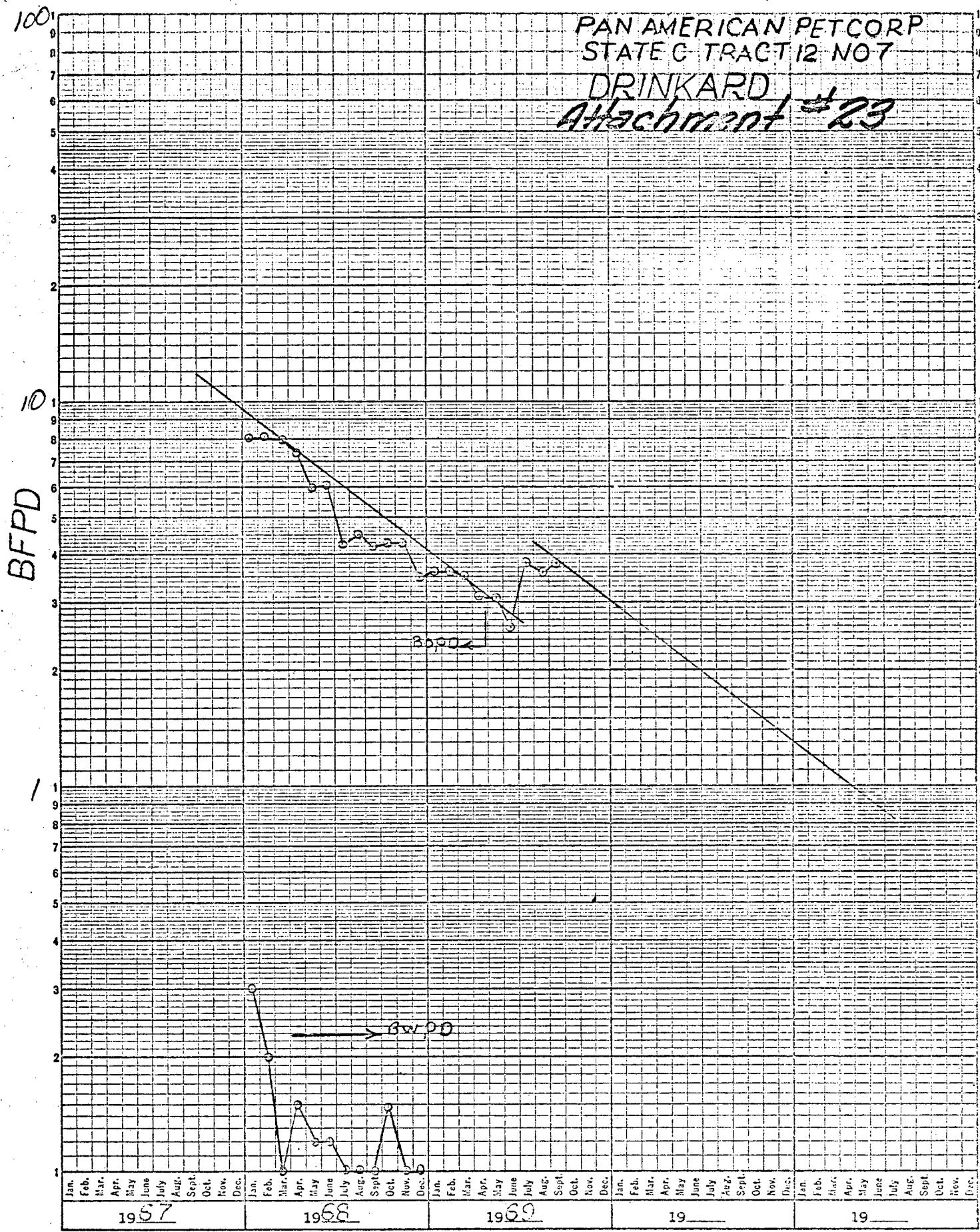
DRINKARD
Attachment 21



 5 YEARS BY MONTHS
X 3 LOG CYCLES
MADE IN U.S.A.
KEUFFEL & ESSER CO.



 5 YEARS BY MONTHS 46 6693
X 3 LOG CYCLES MADE IN U.S.A.
KEUFFEL & ESSER CO.



PAN AMERICAN PETROLEUM CORPORATION

Post Office Box 68
Hobbs, New Mexico 88240

November 12, 1969

File: VES-377-400.1

Subject: Waivers of Objection for
Downhole Commingling
Southland Royalty "A" No. 5
Blinebry-Drinkard Field

Continental Oil Company
P. O. Box 460
Hobbs, New Mexico 88240

Gentlemen:

We propose to downhole commingle our Southland Royalty "A" No. 5, a Blinebry (oil) - Drinkard (oil) dual located 660' FEL x 1980' FSL, Section 4, T-21-S, R-37-E, Lea County, New Mexico.

NMOCC Order No. R-3845 requires a 20-day waiting period for approval of downhole commingling if offsetting operators do not waive objection to the commingling. In order to expedite early approval of the subject matter, we solicit your waivers of objection to downhole commingling.

If you have no objection to the proposed commingling, please sign one copy of this letter as your waiver and return to: Mr. N. S. Whitmore, P. O. Box 1410, Fort Worth, Texas.

Yours very truly,

V. E. Staley
Area Superintendent

DCJ/jt

APPROVED FOR: _____

BY: _____

PAN AMERICAN PETROLEUM CORPORATION

Post Office Box 68
Hobbs, New Mexico 88240

November 12, 1969

File: VES-377-400.1

Subject: Waivers of Objection for
Downhole Commingling
Southland Royalty "A" No. 5
Blinebry-Drinkard Field

Western Oil Fields, Inc.
112 North First
Artesia, New Mexico 88210

Gentlemen:

We propose to downhole commingle our Southland Royalty "A" No. 5, a Blinebry (oil) - Drinkard (oil) dual located 660' FEL x 1980' FSL, Section 4, T-21-S, R-37-E, Lea County, New Mexico.

NMOCC Order No. R-3845 requires a 20-day waiting period for approval of downhole commingling if offsetting operators do not waive objection to the commingling. In order to expedite early approval of the subject matter, we solicit your waivers of objection to downhole commingling.

If you have no objection to the proposed commingling, please sign one copy of this letter as your waiver and return to: Mr. N. S. Whitmore, P. O. Box 1410, Fort Worth, Texas.

Yours very truly,

V. E. Staley
Area Superintendent

DCJ/jt

APPROVED FOR: _____

BY: _____

PAN AMERICAN PETROLEUM CORPORATION

Post Office Box 68
Hobbs, New Mexico 88240

November 12, 1969

File: VES-377-400.1

Subject: Waivers of Objection for
Downhole Commingling
Southland Royalty "A" No. 5
Blinebry-Drinkard Field

Shell Oil Company
P. O. Box 1509
Midland, Texas 79701

Gentlemen:

We propose to downhole commingle our Southland Royalty "A" No. 5, a Blinebry (oil) - Drinkard (oil) dual located 660' FEL x 1980' FSL, Section 4, T-21-S, R-37-E, Lea County, New Mexico.

NMOCC Order No. R-3845 requires a 20-day waiting period for approval of downhole commingling if offsetting operators do not waive objection to the commingling. In order to expedite early approval of the subject matter, we solicit your waivers of objection to downhole commingling.

If you have no objection to the proposed commingling, please sign one copy of this letter as your waiver and return to: Mr. N. S. Whitmore, P. O. Box 1410, Fort Worth, Texas.

Yours very truly,


V. E. Staley
Area Superintendent

DCJ/jt

APPROVED FOR: _____

BY: _____

PANAMERICAN PETROLEUM CORPORATION

Post Office Box 68
Hobbs, New Mexico 88240

November 12, 1969

File: VES-377-400.1

Subject: Waivers of Objection for
Downhole Commingling
Southland Royalty "A" No. 5
Blinebry-Drinkard Field

Texaco Oil Company
Box 728
Hobbs, New Mexico 88240

Gentlemen:

We propose to downhole commingle our Southland Royalty "A" No. 5, a Blinebry (oil) - Drinkard (oil) dual located 660' FEL x 1980' FSL, Section 4, T-21-S, R-37-E, Lea County, New Mexico.

NMOCC Order No. R-3845 requires a 20-day waiting period for approval of downhole commingling if offsetting operators do not waive objection to the commingling. In order to expedite early approval of the subject matter, we solicit your waivers of objection to downhole commingling.

If you have no objection to the proposed commingling, please sign one copy of this letter as your waiver and return to: Mr. N. S. Whitmore, P. O. Box 1410, Fort Worth, Texas.

Yours very truly,

[Signature]
V. E. Staley
Area Superintendent

DCJ/jt

APPROVED FOR: _____

BY: _____

PAN AMERICAN PETROLEUM CORPORATION

Post Office Box 68
Hobbs, New Mexico 88240

November 18, 1969

File: VES-382-400.1

Subject: Waivers of Objection for
Downhole Commingle
State "S" Well No. 1
Blinebry-Drinkard Field

Cities Service Oil Company, Box 4906, Midland, Texas
Gulf Oil Corporation, Box 670, Hobbs, New Mexico
Texaco Oil Company, Box 728, Hobbs, New Mexico

Gentlemen:

We propose to downhole commingle our State "S" Well No. 1, a Blinebry (Oil) - Drinkard (Oil) dual located 660' FNL and 1980' FWL, Section 32, T-22-S, R-38-E, Lea County, New Mexico.

NMOCC Order No. R-3845 requires a 20-day waiting period for approval of downhole commingling if offsetting operators do not waive objection to the commingling. In order to expedite early approval of the subject matter, we solicit your waivers of objection to downhole commingling.

If you have no objection to the proposed commingling, please sign one copy of this letter as your waiver and return to Mr. N. S. Whitmore, P.O. Box 1410, Fort Worth, Texas.

Yours very truly,


V. E. Staley
Area Superintendent

DCJ/jt

APPROVED FOR: _____

BY: _____

PAN AMERICAN PETROLEUM CORPORATION

Post Office Box 68
Hobbs, New Mexico 88240

November 21, 1969

File: VES-388-400.1

Subject: Waivers of Objection for
Downhole Commingling
State "C" Tract 12 No. 3
Blinebry - Drinkard Field

Amerada Petroleum Corporation, P.O. Box 668, Hobbs, New Mexico
Continental Oil Company, Box 460, Hobbs, New Mexico
Gulf Oil Corporation, Box 670, Hobbs, New Mexico

Gentlemen:

We propose to downhole commingle our State "C" Tract 12 Well No. 3, a Blinebry (oil) - Drinkard (oil) dual located at 1980' FNL x 660' FWL, Section 16, T-21-S, R-37-E, Lea County, New Mexico.

NMOCC Order No. R-3845 requires a 20 day waiting period for approval of downhole commingling if offsetting operators do not waive objection to the commingling. In order to expedite early approval of the subject matter, we solicit your waivers of objection to downhole commingling.

If you have no objection to the proposed commingling, please sign one (1) copy of this letter as your waiver and return to: Mr. N. S. Whitmore, P. O. Box 1410, Fort Worth, Texas.

Yours very truly,


V. E. Staley
Area Superintendent

DCJ/jt

Attachments

APPROVED FOR: _____

BY: _____

PANAMERICAN PETROLEUM CORPORATION

Post Office Box 68
Hobbs, New Mexico 88240

November 24, 1969

File: VES-390-400.1

Subject: Waivers of Objection for
Downhole Commingling
State "C" Tract 12 No. 7
Blinebry - Drinkard Field

Amerada Petroleum Corporation, P. O. Box 668, Hobbs, New Mexico
Continental Oil Company, P.O. Box 460, Hobbs, New Mexico
Gulf Oil Corporation, P.O. Box 670, Hobbs, New Mexico

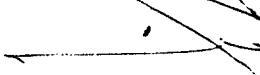
Gentlemen:

We propose to downhole commingle our State "C" Tract 12 Well No. 7, a Blinebry (oil) - Drinkard (oil) dual, located 660' FNL and FWL, Section 16, T-21-S, R-38-E, Lea County, New Mexico.

NMOCC Order No. R-3845 requires a 20-day waiting period for approval of downhole commingling if offsetting operators do not waive objection to the commingling. In order to expedite early approval of the subject matter, we solicit your waivers of objection to downhole commingling.

If you have no objection to the proposed commingling, please sign one (1) copy of this letter as your waiver and return to Mr. N. S. Whitmore, P.O. Box 1410, Fort Worth, Texas.

Yours very truly,


V. E. Staley
Area Superintendent

DCJ/jt

APPROVED FOR: _____

BY: _____

PAN AMERICAN PETROLEUM CORPORATION

Post Office Box 68
Hobbs, New Mexico 88240

November 24, 1969

File: VES-390-400.1

Subject: Waivers of Objection for
Downhole Commingling
State "C" Tract 12 No. 7
Blinebry - Drinkard Field

Amerada Petroleum Corporation, P. O. Box 668, Hobbs, New Mexico
Continental Oil Company, P.O. Box 460, Hobbs, New Mexico
Gulf Oil Corporation, P.O. Box 670, Hobbs, New Mexico

Gentlemen:

We propose to downhole commingle our State "C" Tract 12 Well No. 7, a Blinebry (oil) - Drinkard (oil) dual, located 660' FNL and FWL, Section 16, T-21-S, R-38-E, Lea County, New Mexico.

NMOCC Order No. R-3845 requires a 20-day waiting period for approval of downhole commingling if offsetting operators do not waive objection to the commingling. In order to expedite early approval of the subject matter, we solicit your waivers of objection to downhole commingling.

If you have no objection to the proposed commingling, please sign one (1) copy of this letter as your waiver and return to Mr. N. S. Whitmore, P.O. Box 1410, Fort Worth, Texas.

Yours very truly,


V. E. Staley
Area Superintendent

DCJ/jt

APPROVED FOR: _____

BY: _____



PETROLEUM PRODUCTS

PRODUCING DEPARTMENT -
UNITED STATES
MIDLAND DIVISION
DARRELL SMITH
DIVISION MANAGER

December 5, 1969

DEC 8 1969
TEXACO INC.
P. O. BOX 3109
MIDLAND, TEXAS 79701

WELLBORE COMMINGLING
BLINBRY & DRINKARD POOLS
LEA COUNTY, NEW MEXICO

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

File DHC-14

Attention: Mr. A. L. Porter, Jr.

Gentlemen:

Texaco Inc. has been notified by Pan American Petroleum Corporation of their request to commingle within the wellbore of their State "S" Well No. 1 and Southland Royalty "A" Well No. 5 in the above subject pools and hereby waives objection.

Pan American Petroleum Corporation advised Texaco Inc. the wells listed below are located in Lea County, New Mexico.

Lease Name & Well No.	Location	Section	Township & Range
State "S" 1	660' FNL & 1980' FWL	32	22-S 38-E
Southland Royalty "A" 5	660' FEL & 1980' FSL	4	21-S 37-E

Yours very truly,

Darrell Smith

By 
V. F. Dullnig
Assistant Division Manager

DDD/pw

cc: Pan American Petroleum Corporation
P. O. Box 68
Hobbs, New Mexico 88240