CASE 7121: FLAG-REDFERN OIL CO. FOR DOWNHOLE COMMINGLING, SAN JUAN COUNTY, NEW MEXICO

# CASE NO.

7/21

APPlication,
Transcripts,
Small Exhibits,

ETC.



Other

# STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT

OIL CONSERVATION DIVISION

POST OFFICE BOX 2088 STATE LAND OFFICE BUILDING SANTA FE, NEW MEXICO 87501 (505) 827-2434

February 13, 1981

Mr. Tommy Roberts, Attorney Dugan Production Corporation	Re: CASE NO. 7121 ORDER NO. R-6572
P. O. Box 208 Farmington, New Mexico 87401	Applicant:
Dear Sir:	flag-Redfern Oil Cu:
Enclosed herewith are two conditions order recently enter	opies of the above-referenced ered in the subject case.
Yours very truly,  JOE D. RAMEY  Director	
JDR/fd	
Copy of order also sent to:	
Hobbs OCD X Artesia OCD X Aztec OCD X	

### STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 7121 Order No. R-6572

APPLICATION OF FLAG-REDFERN OIL CO. FOR DOWNHOLE COMMINGLING, SAN JUAN COUNTY, NEW MEXICO.

## ORDER OF THE DIVISION

### BY THE DIVISION:

This cause came on for hearing at 9 a.m. on January 14, 1981, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 10th day of February, 1981, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner, and being fully advised in the premises,

### FINDS:

- (1) That due public notice having been given as required by law, the Division has jurisdiction of this cause and the subject matter thereof.
- (2) That the applicant, Flag-Redfern Dil Co., is the owner and operator of the Aloha Wells Nos. 1 and 2, located in Units L and D, respectively, of Section 16, Township 28 North, Range 11 West, NMPM, San Juan County, New Mexico.
- (3) That the applicant seeks authority to commingle Pinon-Fruitland and Fulcher Kutz-Pictured Cliffs production within the wellbores of the above-described wells.
- (4) That from the Pinon-Fruitland zone, the subject wells are capable of low rates of production only.
- (5) That from the Fulcher Kutz-Pictured Cliffs zone, the subject wells are capable of low rates of production only.

-2-Case No. 7121 Order No. R-6572

- (6) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.
- (7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.
- (8) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Division any time the subject well is shut-in for 7 consecutive days.
- (9) That in order to allocate the commingled production to each of the commingled zones in said Aloha Wells No. 1 and 2, 90 percent and 50 percent, respectively, of the commingled production should be allocated to the Pinon-fruitland zone, and 10 percent and 50 percent, respectively, of the commingled production to the Fulcher Kutz-Pictured Cliffs zone.
- (10) That during January, 1982, the applicant should consult with the supervisor of the Aztec district office of the Division to determine allocation formulas for each of the production zones in said Aloha Well No. 1 should production trends warrant such a change.

### IT IS THEREFORE ORDERED:

- (1) That the applicant, Flag-Redfern Oil Co., is hereby suthorized to commingle Pinon-Fruitland and Fulcher Kutz-Pictured Cliffs production within the wellbore of the Aloha Wells Nos. 1 and 2, located in Units L and D, respectively, of Section 16, Township 28 North, Range 11 West, NMPM, San Juan County, New Mexico.
- (2) That 90 percent and 50 percent, respectively, of the commingled production shall be allocated to the Pinon-Fruitland zone and 10 percent and 50 percent, respectively, of the commingled production shall be allocated to the Fulcher Kutz-Pictured Cliffs zone in said Aloha Wells Nos. 1 and 2.
- (3) That during January, 1982, the applicant shall consult with the Supervisor of the Aztec district office of the Division and determine a modified allocation formula for said Aloha Well No. 1 should production trends warrant the same.

-3-Case No. 7121 Order No. R-6572

- (4) That the operator of the subject well shall immediately notify the Division's Aztec district office any time the well has been shut-in for 7 consecutive days and shall concurrently present, to the Division, a plan for remedial action.
- (5) That jurisdiction of this cause is retained for the entry of such further orders as the Division may deem necessary.

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

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JOE D. RAMEY, Director

SEAL

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CASE 7121

STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO 14 January 1981 EXAMINER HEARING IN THE MATTER OF: Application of Flag-Redfern Oil Co. 8 for downhole commingling, San Juan County, New Mexico. 10 BEFORE: Richard L. Stamets 11 12 TRANSCRIPT OF HEARING 13 14 APPEARANCES 15 18 For the Oil Conservation Ernest L. Padilla, Esq. 17 Division: Legal Counsel to the Division State Land Office Bldg. 18 Santa Fe, New Mexico 87501 19 20 For the Applicant: Tommy Roberts, Esq. P. O. Box 208 21 Farmington, New Mexico 87401

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2 MR. STAMETS: We'll call next Case 7121. 3 MR. PADILLA: Application of Flag-Redfern Oil Company for downhole commingling, San Juan County, New 5 Mexico. 6 MR. ROBERTS: Tommy Roberts, in house 7 counsel for Dugan Production Corporation, on behalf of Flag-Redfern Oil Company, P. O. Box 208, Farmington, New Mexico. I have one witness to be sworn. 10 MR. STAMETS: The same witness? 11 MR. ROBERTS: The same witness. 12 MR. STAMETS: I'd like for the record to 13 reflect that he was previously sworn and is still sworn for 14 purposes of this case. 15 16 THOMAS A. DUGAN 17 being called as a witness and being previously sworn upon 18 his oath, testified as follows, to wit: 19 20 DIRECT EXAMINATION 21 BY MR. ROBERTS: 22 Would you please state your name and 23 your address and occupation for the record, please? 24 Tom Dugan from Farmington, New Mexico, 25 and I'm a Director of Flag-Redfern Oil Company.

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2	Q. Is that the capacity in which you repre-
3	sent Flag-Redfern Oil Company here today?
4	A. No, I'm representing them as a consulting
5	petroleum engineer today.
6	0. For the record, you have previously tes-
7	tified before this Commission?
8	A. Yes.
9	MR. ROBERTS: Are the witness' qualifi-
<b>10</b> .	cations accepted?
11	MR. STAMETS: They are.
12	0 Mr. Dugan, are you familiar with the
13	application in this matter?
14	A. Yes, I am.
15	Will you briefly describe the purpose
16	of the application?
17	A. Well, Flag-Redfern has drilled two wells
18	in the in Section 16 of Township 28 North, Range 11 West.
19	They have been dually completed in the Fruitland and Pic-
20	tured Cliffs formations and we are asking that both wells
21	be allowed to commingle in the wellbore from both horizons.
22	Q Would you refer to Exhibit Number One
23	and identify that exhibit?
24	A. It shows the owners of the offset leases
25	along with the location of the Aloha 1 Well, which is in the

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The Exhibit Three is a diagrammatic sketch of the Aloha No. 1 Well, showing where the casing is set and where the tubing has been set, along with a Baker Model "C" packer, and where the Pictured Cliffs and Fruitland

Refer to Exhibit Number Three-A and

It's a diagrammatic sketch of the Aloha No. 2 Well, showing where the casing, tubing, and packer was set, along with the perforations in the Pictured Cliffs and

Please refer to Exhibit Number Four and identify that exhibit and explain its significance.

Number Four is a cross section of the two logs, showing the -- I guess -- the zones that were perforated weren't marked, so I guess we'd better go over that,

Referring to Exhibits Three and Three-A.

Okay, on the Aloha 1 Well the Fruitland zone from 1311 to 1326 was perforated. That doesn't look right.

MR.

MR. STAMETS: 'It sure doesn't, Tom.

Are you sure that well's making anything there?

A. Yeah it's a pretty good well.

I would say that we perforated that sand there from — there's either a big difference in the measurements, the wireline measurements, there, that's a mistake, but I'd say we perforated that sand from 1330 to 50. That was our intention, I'm sure.

The difference in the log and -- okay,

I know what the difference is. The -- this is the log on
a Dakota well that is within 200 feet of the Aloha 1. We
actually didn't log the Aloha 1, so the measurements that is
shown on the diagrammatic sketch is ground level measurements
and -- but I know that we perforated the zone, the sand that
shows up there on this -- on this exhibit, from 1330 to 50.
And also the Pictured Cliffs formation from -- as showing up
on Exhibit -- on the cross section, from 1615 to 25, and then
the Aloha No. 2 Well, this is actually the log on it, and
it was perforated 1350 to 57, and 1582 to 88.

Q. All right, Mr. Dugan, do you have anything more on Exhibit --

A. Well, yeah, the cross section would indicate that, of course, the Pictured Cliffs horizon is the same in both wells, but the Fruitland zones aren't the same.

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Fruitland zone that was perforated as compared to the zone Please refer to what's been marked as Exhibit Number Five and identify that exhibit. You can identify Five and Five-A at the same time, if you like. Okay. This is the one point back pressure test on the Aloha 1 Well in the Pictured Cliffs and also the Fruitland horizons. The Pictured Cliffs zone had a calculated absolute open flow of 329 Mcf per day. The Fruitland had a calculated absolute open flow of 2255 Mcf per day. The Pictured Cliffs has a shut-in pressure of 482 and the Fruitland has a shut-in pressure of Okay, and would you identify Exhibit Okay. The Aloha No. 2, the Pictured Cliffs formation has a calculated absolute open flow of 207 Mcf per day. The Fruitland zone has a calculated absolute open flow of 160 Mcf per day. The Pictured Cliffs shut-in pressure on this well is 372 psi. The Fruitland shut-in pressure is 544 psi. And does the information contained in Q.

these two exhibits indicate that the pressures, as regards
the two zones in the respective wells, are compatible?

A. Yes. The upper zone has the higher

A. Yes. The upper zone has the higher shut-in pressure.

O Please take a look at Exhibit Number Six and identify that exhibit.

That's a packer leakage test that was run on both wells --- well, Exhibit Six is on Aloha 1 and Exhibit Six-A is a packer leakage test on Aloha 2. Indicate that at the present time there's no communication between zones.

0. Mr. Dugan, from an economical point of view, is it necessary to commingle production from these zones in the wellbores of the wells?

A. I don't know if it's necessary, but it is certainly desireable to, particularly in the Aloha 2. Both zones are relatively weak and if we could commingle them in the wellbore, we could lift the produced fluids much better and I'm sure that the ultimate production from the well would be much higher.

In the Aloha No. 1 Well the Fruitland zone is really a strong zone but the -- it would be difficult to lift the produced fluids from the Pictured Cliffs formation and we'd like to see this well commingled, also. We

1			10
2	also anticipate that we	might have problems in the n	ear futu
3	with leaking between th	e zones because of the streng	th of
4	the higher zone, afraid	that we'll get a hole in it,	it will
5	sandblast a hole in our	in the tubing rather rapid	dly.
6	o. To	your knowledge is the owners	hip of
7	both zones common		
8	A. Ye	<b>5.</b>	
9	Q	to both wells?	
10	λ. Ye	s, it is.	
11	g. Sh	ould this application be gran	ted, do
12	you propose any formula	for the allocation of produc	tion
13	between the zones in ea	ch well?	
14	A. Ye	s, I do. The Aloha 1 Well, I	would
15	propose that 90 percent	of the production be allocate	ed to
16	the Fruitland and 10 pe	rcent to the Pictured Cliffs.	
17	In	the Aloha 2, I;d propose that	t 50
18	percent be allocated to	the Fruitland and 50 percent	to the
19	Pictured Cliffs.		
20	Q. Mr	. Dugan, were Exhibits One th	rough
21	Six either prepared by	you or under your supervision	?
22	A. Ye	s.	
23	MR	. ROBERTS: Move for admission	n of
24	Exhibits One through Si	<b>x.</b>	
25	MR	. STAMETS: These exhibits wi	ll be

1	11	
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3		ted,
4	4 would it result in the recovery of additional hydrocarb	ons
5	5 and the prevention of waste and the protection of corre	lative
6	6 rights?	
7	7 A. I believe that it would.	
8	MR. ROBERTS: I have no other ques	tions.
9	9	
10	O CROSS EXAMINATION	
11	BY MR. STAMETS:	
12	2 Mr. Dugan, you mentioned liquids.	Do
13	either of these zones produce any liquids at this time?	
14	A. Neither of the zones produce any o	<b>i</b> 1
15	but both zones produce some water.	
16	Do you have a measure?	
17	A. Small amount of water. No, I don'	t have
18	a measurement on it but it's	
19	Q Talking about a barrel a day overa	11
20	or less?	
21	A. It, probably to start out with, it	would
22	be a little bit more than a barrel a day and within six	
23	months it will be less than a barrel a day.	* * *
24	Q. What do you propose to do mechanica	ally
25	in these wells?	

See a section of the section of the

In the No. 2 I would propose to pull the tubing, pull that packer out of there and rerun the tubing. In the No. 1 I'd propose to perforate the tubing, not pull the packer.

> Okay. 0.

I'd like to pull the packer but it's a pretty good well. It's a little bit difficult to do. MR. STAMETS: Any other questions of the witness?

### CROSS EXAMINATION

BY MR. CHAVEZ:

Mr. Dugan, just one question. Has it been your experience with the Fruitland production in that area that it's a fast decline because of the small lenses that would -- that would actually be your reservoir --

Well --

-- in particular areas?

Unfortunately some of them are exactly that way; however -- and I would think probably that this Aloha 1 would probably be in that category because this particular horizon, it doesn't show up in any other well around there; however, that Pinon Fruitland Field, which is not far away, is a pretty large sand and it doesn't really show the

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13 rapid decline as some of the others. 2 Then you might say, then, that the Aloha 3 1 may not be in the Pinon Pool, or it may just be an isolated sand lens. I'm sure it's not. MR. CHAVEZ: That's all I have. I think the Aloha 2 is in the Pinon, same horizon. 10 RECROSS EXAMINATION 11 BY MR. STAMETS: 12 Mr. Dugan, if production did decline 13 rather rapidly from the No. 1 Well, would you think it would 14 be appropriate to adjust that allocation figure downward, 15 say to 50-50 as you proposed on No. 2? 16 Yes, it might be, if it came down very 17 rapidly. 18 MR. STAMETS: Are there any other ques-19 tions of the witness? He may be excused. 20 Anything further in this case? 21 The case will be taken under advisement. 22 23 (Hearing concluded.) 24 25

# CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREPY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Swey W. Boyd CisiR.

Le here / cortivities the foregoing is
the exeminar hearing of Case No. 272/
Oil Conservation Division Examiner

SALLY W. BOYD, C.S.I Rt. 1 Box 193-B Santa Fe, New Mexico 87501

Santa Fe, New M. Phone (505) 4 

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STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION STATE LAND OFFICE BLDG. SANTA FE, NEW MEXICO 14 January 1981

### EXAMINER HEARING

IN THE MATTER OF:

Application of Flag-Redfern 011 Co. ) for downhole commingling, San Juan ) County, New Mexico.

CASE 7121

BEFORE: Richard L. Stamets

TRANSCRIPT OF HEARING

APPEARANCES

For the Oil Conservation Division:

Ernest L. Padilla, Esq. Legal Counsel to the Division State Land Office Bldg. Santa Fe, New Mexico 87501

For the Applicant:

Tommy Roberts, Esq. P. O. Box 208 Farmington, New Mexico 87401

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M. Well, yeah, the cross section would indicate that, of course, the Pictured Cliffs horizon is the same in both wells, but the Fruitland zones aren't the same.

Q Okay.

. .

A In the Aloha No. 2 Well it's a lower Fruitland zone that was perforated as compared to the zone that was perforated in the Aloha 1.

Please refer to what's been marked as Exhibit Number Five and identify that exhibit. You can identify Five and Five-A at the same time, if you like.

A. Ckay. This is the one point back pressure test on the Aloha 1 Well in the Pictured Cliffs and also the Fruitland horizons. The Pictured Cliffs zone had a calculated absolute open flow of 329 Mcf per day. The Fruitland had a calculated absolute open flow of 2255 Mcf per day.

The Pictured Cliffs has a shut-in pressure of 482 and the Fruitland has a shut-in pressure of 575 psi.

Okay, and would you identify Exhibit

Five-A with regard to the Aloha No. 2 Well?

Okay. The Aloha No. 2, the Pictured Cliffs formation has a calculated absolute open flow of 207 Mcf per day. The Fruitland zone has a calculated absolute open flow of 160 Mcf per day. The Pictured Cliffs shut-in pressure on this well is 372 psi. The Fruitland shut-in pressure is 544 psi.

And does the information contained in

these two exhibits indicate that the pressures, as regards the two zones in the respective wells, are compatible?

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2	also anticipate that we might have problems in the near future
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6	O. To your knowledge is the ownership of
7	both zones common
8	λ. Yes.
9	ρ to both wells?
10	A. Yes, it is.
11	o Should this application be granted, do
12	you propose any formula for the allocation of production
13	between the zones in each well?
14	A. Yes, I do. The Aloha 1 Well, I would
15	propose that 90 percent of the production be allocated to
16	the Fruitland and 10 percent to the Pictured Cliffs.
17	In the Aloha 2, I'd propose that 50
18	percent be allocated to the Fruitland and 50 percent to the
19	Pictured Cliffs.
20	Mr. Dugan, were Exhibits One through
21	Six either prepared by you or under your supervision?
22	A. Yes.
23	MR. ROBERTS: Move for admission of
24	Exhibits One through Six.
25	MR. STAMETS: These exhibits will be

11 2 admitted. If this application should be granted, would it result in the recovery of additional hydrocarbons and the prevention of waste and the protection of correlative rights? I believe that it would. MR. ROBERTS: I have no other questions. 10 CROSS EXAMINATION 11 BY MR. STAMETS: 12 Mr. Dugan, you mentioned liquids. Do 13 either of these zones produce any liquids at this time? 14 Neither of the zones produce any oil 15 but both zones produce some water. 16 Do you have a measure? 17 Small amount of water. No, I don't have 18 a measurement on it but it's ---19 Talking about a barrel a day overall 20 or less? 21 It, probably to start out with, it would 22 be a little bit more than a barrel a day and within six 23 months it will be less than a barrel a day. 24 What do you propose to do mechanically

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### CERTIFICATE

I, SALLY W. BOYD, C.S.R., DO HEREBY CERTIFY that the foregoing Transcript of Hearing before the Oil Conservation Division was reported by me; that the said transcript is a full, true, and correct record of the hearing, prepared by me to the best of my ability.

Smy W. Boyd C.S.R.

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Oil	Conservai	ion Divis	sion		

A. DEDICATED ACREAGE
Aloha #1 Well
NM 013365
Flag-Redfern 0il Co.

B. MM 013365 Flag-Redfern 0il Co.

C. NM 010063
George E. Willett
Curtis Little
Bradley Keyes

D. SF 080844
National Drilling Co.

E. NM 013365
Dugan Production Corp.

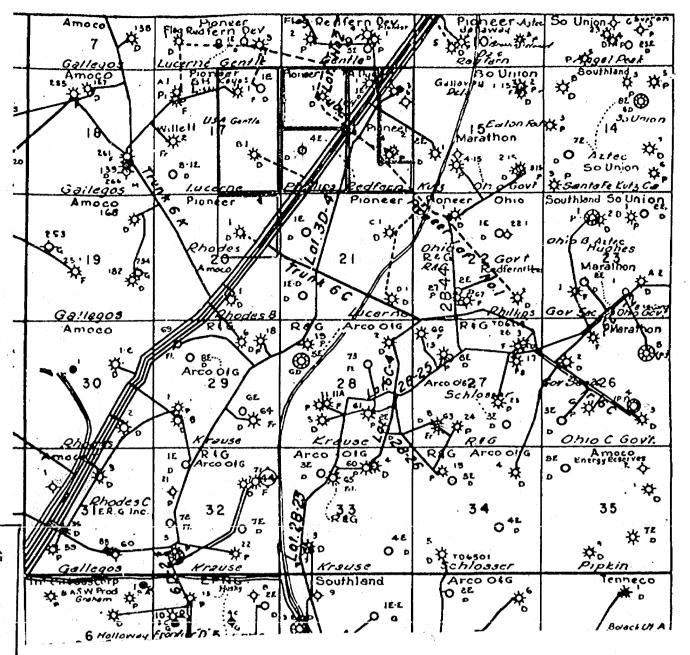
F. NM 021116
Flag-Redfern 0il Co.

G. NM 010063
George E. Willett
Curtis Little
Bradley Keyes

ALOHA #1 Well

OFFSETTING LEASES AND OPERATORS

APPLICATION FOR DOWNHOLE COMMINGLING
Flag-Redfern Oil Co.
Aloha #1 & #2 Wells
Unit L & D, Sec. 16, T-28-N, R-11-W
San Juan County, New Mexico
Case No. 7121
Exhibit No.

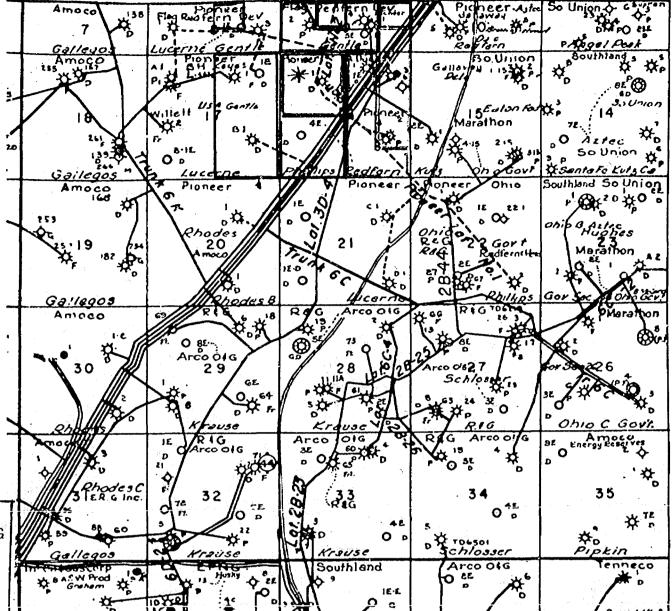


- A. samma NM 020982 Flag-Redfern 0il Co.
- B. NM 010063 Flag-Redfern 0il Co.
- C. NM 013365 Flag-Redfern 0il Co.
- D. MM 013365

  Dugan Production Corp.
- E. NM 010063 Flag-Redfern 0il Co.
- F. MM 010063
  George E. Willett
  Curtis Little
  Bradley Keyes
- G. NM 021116 Flag-Redfern 0il Co.
- H. DEDICATED ACREAGE Aloha #2 Well Flag-Redfern Oil Co.

ALOHA #2 WELL

OFFSETTING LEASES AND OPERATORS



d<sub>p</sub>

FLAG-REDFERN OIL CO. Aloha #1 1710' FSL - 790' FWL Sec 16 T28N R11W San Juan County, NM APPLICATION FOR DOWNHOLE COMMINGLING
Flag-Redfern Oil Co.
Aloha #1 & #2 Wells
Unit L & D, Sec. 16, T-28-N, R-11-W
San Juan County, New Mexico
Case No. 7121
Exhibit No. 2

#### MORNING REPORT

- 11-7-80 MIRU Morrow Drlg. Co. Rig. Spudded 8-3/4" hole @ 10:30 a.m., 11-6-80. Drilled to 127'. Ran 3 jts 7" 0.D., 23#, 8 Rd., ST&C "B" cond. csg. T.E. 123.76' set @ 125' G.L. cemented w/ 60 sx class "B". P.O.B. @ 2:00 p.m., 11-6-80. Good cement to surface. W.O.C.
- 11-8-80 Drlg. 5" hole @ 780'.
- 11-9-80 Drlg. 5" hole @ 1180'. Well kicked @ 960'). Mixed gel & starch well is now completely under control. No mud properties available.
- 11-10-80 T.D. 1690'. Laying down drill pipe, prep to run 2-7/8" csg.
- 11-11-80 Laid down drill pipe. Ran 60 jts. 2-7/8" 0.D. 6.4# CW55-10RD NEUE tbg for csg. T.E. 1692.51' set @ 1692' G.L. Had good circulation throughout job. Cemented w/ 75 sx extended slurry followed by 75 sx class "B" neat. Bumped plug w/ 1200 psi. Held OK. Shut in w/ 750 psi. Circulated trace of cement. P.O.B. 11:10 a.m. 11-10-80.
- 11-25-80 Rigged up Southwest Surveys. Ran GR/Neutron/CII from PBTD 1657' to 850'. Rigged up FWS swabbing unit. Swabbed well down to 1100'. Perf zone 1597'-1603', 6', 1 SPF, .43" diam. hole, 6 holes w/ 2-1/8" bi-wire glass jet gun. Perf 1311'-1326', 15', 1 SPF, .43" diam hole, 15 holes w/ 2-1/8' bi-wire glass jet gun. Well unloading while pulling gun out of the hole.

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FLAG-REDFERN OIL CO. Aloha #1 Page 2

Rig up FWS to run tubing. Ran Baker model D packer on 43 jts of 1½", 10R, EUE, new tubing. T.E. 1366.92 set 0 1365' GL. Set packer in tension. Well making gas on annulus. Shut in annulus. Annulus built up to 400 psi in 10 min. Tubing making slight amount of gas.

Rigged up Cementers Inc. acid truck and 3 Rivers water hauling. Pumped 150 gals 15% HCL w/ inhibitor down casing and displaced w/ 3.8 bbls of water. Breakdown pressure 1550 psi. 950 psi pressure while pumping @ 3/4 BPM. ISDP 450 psi. 0 psi in 7 mins. after shut-in. No indication of communication on annulus noted. Pumped 150 gal of 15% HCL w/ inhibitor down annulus and displaced w/ 4.1 bbls of water. Breakdown pressure 1100 psi, 750 psi prssure while pumping @ 1 BPM ISDP 550. 200 psi in 5 mins after shut in. No indication of communications w/ tubing noted. Well flowing while pulling packer. Well left open for 4 hrs. Shut in.

- Rigged up the Western Co. and foam fraced the P.C. & Fruitland formations (1597-1603 & 1311-1326) w/ 70% quality foam.

  Pressure tested lines to 4800 psi. Placed 4000 gal pad of 70% quality foam ahead of 5000 gals of 70% quality foam w/ l ppg of 10-20 sand, followed by 7500 gals of 70% quality foam w/ 2 ppg of 10-20 sand. Placed 2000 gal of 70% quality foam pad and dropped 10 balls (7/8" diam, 1.3 sg) followed by 7500 gals of 70% quality foam w/ 2 ppg of 10-20 sand. Displaced w/ 340 gals of 70% quality foam. ISDP 1000 psi; 15 min shut-in 900 psi. Maximum pressure 1700 psi, minimum pressure 1400.

  Average pressure 1650 psi. No ball action noted. IR 15 BPM. Materials used. 194,040 SCFN2, 35,000# 10-20 sand, 175 bbls of water, 41 gals adafoam, 182 HHP, 10 balls (7/8" diam., 1.3 sg). Well opened to atmosphere thru 5/8" choke 2 hrs after treating.
- Rigged up FWS pulling unit. Rigged up wellhead. Ran and landed the following tubing string; I swab stop (.40'); 7 jts 1½", 10R, EUE, 2.4#/ft, J-55, new tubing (228.50'); I Baker model "C" packer set in tension (1.68'); 42 jts 1½", 10R, EUE, 2.4#/ft., J-55, new tubing (1364.59'). TE 1595.17' set at 1594' GL, packer set in tension at 1364' GL. No sand tagged. Annulus making gas, tubing making gas and misting soapy water. Well shut in.

FLAG-REDFERN OIL CO. Aloha #2 850 FNL - 870' FWL Sec 16 T 28N R11W

San Juan County, NM

APPLICATION FOR DOWNHOLE COMMINGLING
Flag-Redfern Oil Co.
Aloha #1 & #2 Wells
Unit L & D, Sec. 16, T-28-N, R-11-W
San Juan County, New Mexico
Case No. 7121
Exhibit No. 2-7

#### MORNING REPORT

- 11-13-80 Moved in and rigged up Morrow Drlg. Co. rig. Spudded 8-3/4" hole at 9:30 a.m. 11-12-80. Drilled 126'. Ran 3 jts. 7" 0.D. 23#, 8R, ST&C, "B" Cond csg. T.E. 123.15 set at 125' G.L. Cemented w/ 60 sx class "B". P.O.B. at 3:00 p.m. 11-12-80. Good cement to surface. W.O.C.
- 11-14-80 Repairing hydraulic pump on rig. Well kicked at 500'.
  Mixed gel and starch. Well is now completely under control.
  No mud properties available.
- 11-15-80 Drlg. 1100' Wt. 10. Vis 48 Ph 9.5 Wt. 8 No trouble with gas kick on last trip.
- 11-16-80 1400' Drlg. W.t 10.1 Vis 45
- 11-17-80 T.D. 1740 Ran I.E.S. log by Welex. Now prep to run 2-7/8" tbg. for csg.
- 11-18-80 T.I.H. w/ drill pipe. Circ. hole 1 hr. Laid down drill pipe; rigged up and ran 60 jts 2-7/8" O.D., 6.4#, 10 Rd., NEUE tbg for csg. T.E. 1741.47' set @ 1740' G.L. Cemented w/ 90 sx 2% Lodense followed by 75 sx class "B" neat. Reciprocated pipe OK while cementing. Good returns while cementing. Trace of contaminated cement to surface. P.O.B. @ 3.30 p.m., 11-17-80.
- Rigged up FWS swabbing unit and Southwest Surveys. Swabbed well down to 1200'. Ran GR/CLL from PBTD 1713' to 1000'. Note: All depths are set back to open hole IES log. Perf zone 1582'-1588', 6', 1 SPF, .43" diam. hole, 6 holes w/2-1/8" bi-wire glass jet gun. Perf 1350-1357', 7', 1 SPF, .43" diam hole, 7 holes, w/2-1/8 bi-wire glass jet gun. Swabbed well 3 times. Small amount of gas flowing, no liquid entry apparent.

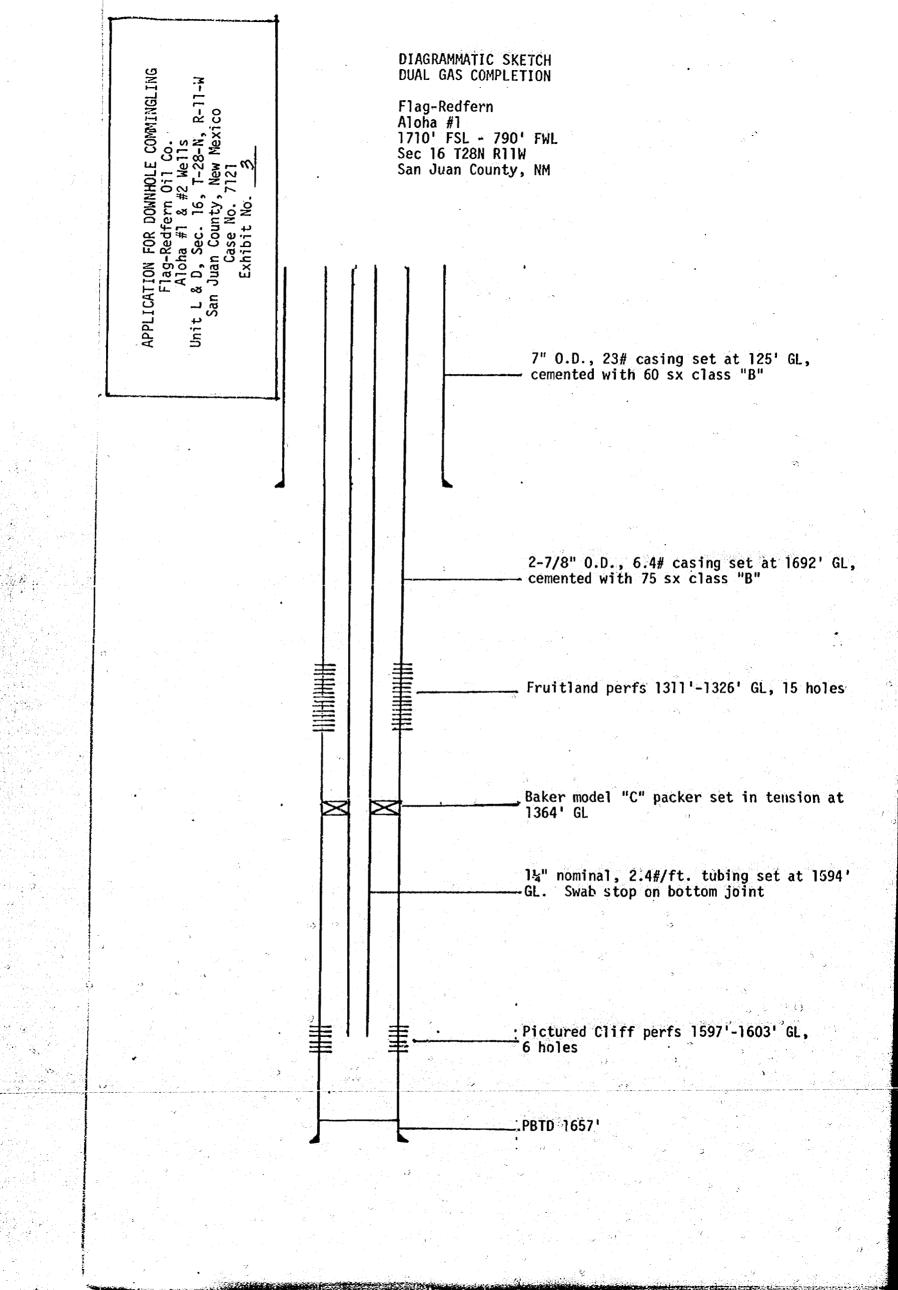
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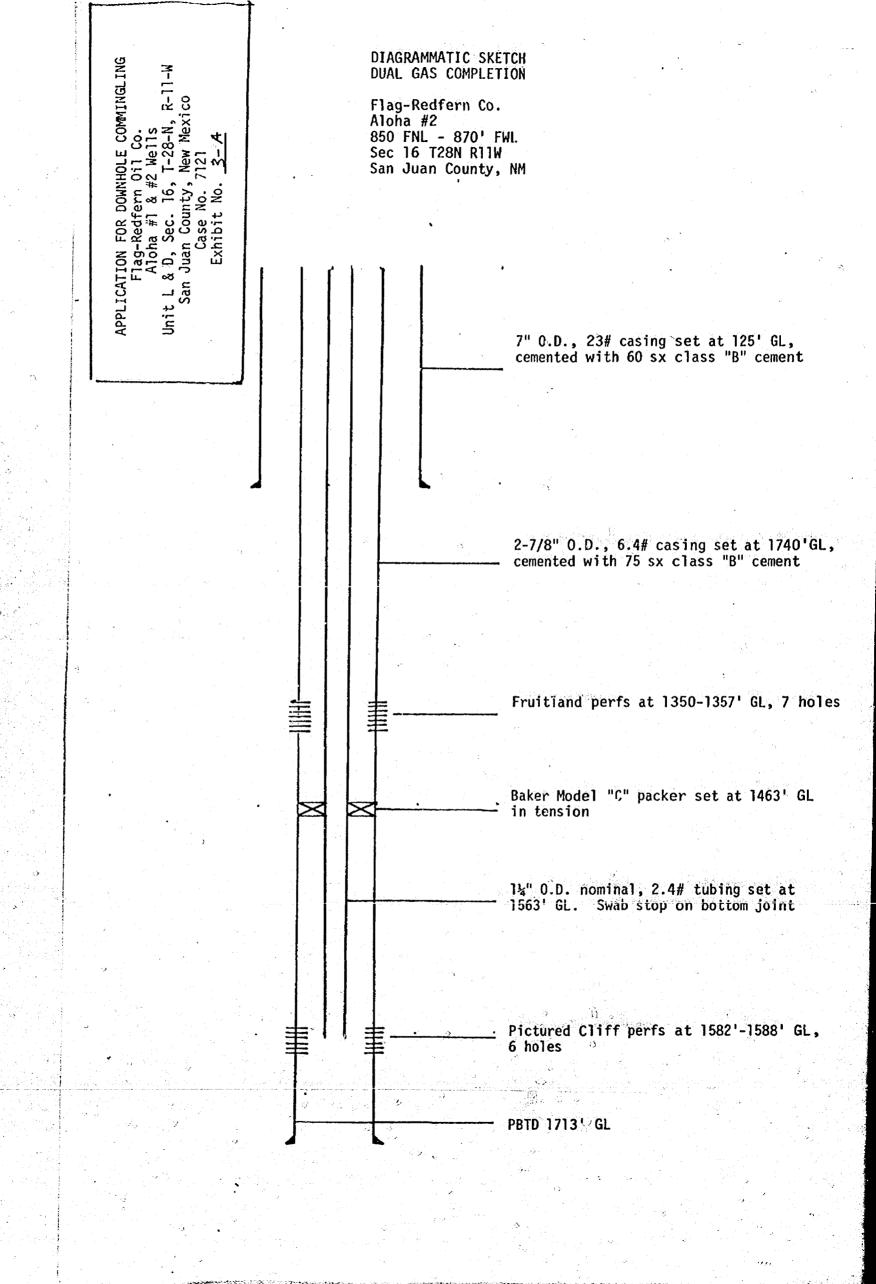
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FLAG-REDFERN OIL CO. Aloha #2 Page 2

- Rigged up FWS. Ran Baker model D packer in tension on 43 jts of 1½", 10R, EUE new tubing. T.E. 1399.42' set @ 1398 GL. Small amount of gas flowing up tubing, annulus dead. Rigged up Cementers, Inc. Pumped 150 gals of 15% HCL w/ inhibitor and displaced w/ 3.8 bbls of water. Breakdown pressure 1400 psi. Acid placed @ 3/4 BPM @ 850 psi. ISDP 200. No indications of communications w/ annulus. Pumped 150 gals of 15% HCL w/ inhibitor and displaced w/ 4.5 bbls of water. Breakdown pressure 1600 psi. Acid placed @ 3/4 BPM @ 1100 psi. ISDP 625 psi. Shut annulus in 15 min.-pressure 600 psi. Well flowing back on annulus.
- 11-29-80 Pulled 43 jts of 1½", 10 R, EUE tubing and Baker model D packer. Well unloading while pulling tubing. Swabbing well.
- Rigged up the Western Co. and foam fraced the P.C. and Fruitland formations (1582-1588 & 1350-1356) w/ 70% quality foam. Pressure tested lines to 3500 psi. Placed 4000 gal pad of 70% quality foam ahead of 5000 gal of 70% quality foam w/ 1 ppg of 10-20 sand, followed by 7500 gals of 70% quality foam www 2ppg of 10-20 sand. Placed 2000 gal of 70% quality foam pad and dropped 10 balls (7/8" diam., 1.3 sg) followed by 7500 gals of 70% quality foam w/ 2 ppg of 10-20 sand. Displaced w/ 340 gals of 70% quality foam. ISDP 1000 psi; 15 min. shut-in 900 psi. Maximum pressure 1825 psi, minimum pressure 1600 psi, average pressure 1700 psi. No ball action noted. IR 15 BPM. Materials used: 200,250 SCF of N2; 35,000# 10-20 sand, 189 bbl of water, 42 gals adafoam, 195 HHP, 6 balls (7/8" diam., 1.3sg). Well opened to atmosphere thru 3/4" choke 2 hrs after treating.
- Rigged up FWS. Set wellhead. Tagged sand w/ tubing at 1589 GL. Landed tubing string consisting of 1 swab stop (1.25'); 3 jts 1¼", 10R, EUE, used tubing (97.62'); 1 Baker model "C" packer set in tension (2.25'); and 45 jts 1¼", 10R, EUE, used tubing (1463.34'). T.E. 1564.46' set at 1563 GL, packer set at 1463' GL in tension. Well making gas and slugs of soapy water from tubing and gas from annulus. Well left open for clean up.

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STATE OF NEW MEXICO ENERGY AND MITHENALS DEPARTMENT

#### P. O. BOX 2088 SANTA FE, NEW MEXICO 87501

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## UIL CONSERVATION DIVISION 11, 0, DOX 2688 SANTA FE, NEW MEXICO 87501

Form C-127 Revised 10-1-78

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STATE OF HEW MEXICO (
ENERGY AND MILETALS DEPARTMENT

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

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This form is not to to wand for reporting packet leaves trees in Southeast New Newsco

## NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

	Operator Flag-Re	edfern O	il Company	I	Lease A	loha	No. 1
	Location of Well: Unit	Sec.	16 Two. 28No	orth Be	a 11 Wes	t Count	. San Juan
	Of Hell's Oliver		10 14p+ Lon	Type of Prod	Method	d of Prod. r Art. Lift)	Prod. Medium
	Upper Name	of Rese	rvoir or Pool	(Oil or Gas)	(Flow or	r Art. Lift)	(Tbg. or Csg.)
	Completion Pinon	Fruitlan	d ·	Gas	Flow		Csg.
	Lower Completion Fulcher	r-Kutz P	ictured Cliffs	Gas	Flow		Tbg.
			PRE~F	LOW SHUT-IN PR			
	Upper Hour, date Compl Shut-in	0:00 am	12-3-80 ime shu	t-in 7 days	SI pre	6/6	Stabilized? NO (Yes or No)
	Lower Hour, date Compl Shut-in	0:00am 1:	2-3-80 Length	of 7 days	SI pre	53. 482	Stabilized? NO
				FLOW TEST N	1 231		(Yes or No)
	Conmenced at (hou	r, date)	* 9:00 am 12-10	)-80	Zone p	roducing (Uppe	r or Lower):lower
:		sea time ince*	Pres. Upper Compl.	Lower Compl.	Prod. Zone		arks
	9:00am 12-10-80	0	575	482	43	Start test ½	
25. T. P. C.	10:00am 12-10-80	1 hr	575	200	41		
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			- Ta	FLOW TEST NO	). 2		
	Commenced at (hour Time Laps	, date)* ed time	* 1:00pm 12-1 Press	7-80	Zone pr Prod. Zone	roducing (Upper	or Lower):upper
	(hour, date) sin		Upper Compl.		Temp.	Rema	rks
	1:00pm 12-17-80	0	575	482	56	Start test 3/4	l" choke
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٠			10	Operator_	Flag-Redfe	rn Oil Company	7 1
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y X			HOLE COMMINGLI	NG tle	Agent		
	Alol	-Redfern ha #1 & #	#2 Wells	te	1-13-81		
Y			, T-28-N, R-11- , New Mexico	W			
		Case No.	712]				
	EXI	hibit No.					

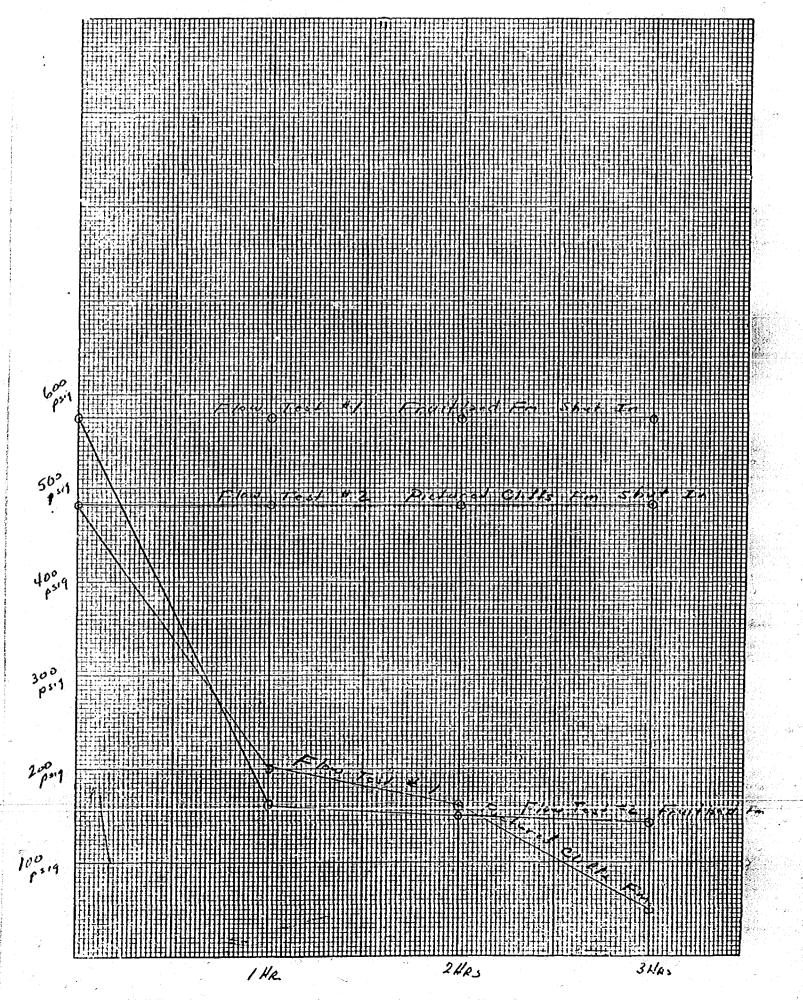
tioner 72 hours grant to the convergement of any parket leabage test, operator shall notify the Division in writing of the exact time the time to converge. Offset operators shall also be so notified.

The parket leabage test shall contained when both zones of the dual liction are shalt-in for pressure stabilization. Both zones shall resolution until the well-head pressure in each has stabilized, provided for that they need not remain shut-in more than seven days.

For flow Test No. 1, one zone of the dual completion shall be produced be normal rate of production while the other zone remains shut-in, that shall be continued for teven days in the case of a gas well and 24 hours in the case of an oil well. Note: If, on an initial packer age test, a gas well is being flowed to the atmosphere due to the lack pipeline connection the flow period thall be three hours.

\*\*Dilleging completion of flow Test No. 1, the well shall again be shut-in accordance with Farairaph I above.

\*\*Low Test No. 1. Incombine for the stable of test No. 1. The colore for the stable of test No. 1. Incombine for the stable of the stable of test No. 1. Incombine for the stable of the stable of test No. 1. Incombine for the stable of test No. 1. Incombine for the stable of the stable of test No. 1. Incombine for the stable of the stable o



### NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator_	F1a	g-Redferi	oil Company	L	case	A1oha	Well No. 2
Location of Well:	11nd+ D	Sec. 16	5 Tun 28	North Rg	a 11 West	Count	- San Juan
or werr:				Type of Prod	<ul> <li>Metho</li> </ul>	d of Prod.	Prod. Medium
-	Name	of Rese	rvoir or Pool	(Oil or Gas)	(Flow o	r Art. Lift)	(Tbg. or Csg.
Upper	n	inan Cuid	(41 and	Can			
Completion Lower	<u> </u>	inon rrui	tland '	Gas	F10	<u>W</u>	Csg.
	Fulch	er-Kutz P	ictured Clift		F1o		Tbg.
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Compl Shu Lower Hour	date	12/3/80 10:00_A	Tength	ut-in 7 days	ST pr	535	(Yes or No) No Stabilized?
Compl Shi		12/3/80	time sh	ut-in 7 days	psi	g 372	(Yes or No)
				FLOW TEST NO	0. 1		
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Time (hour, date	ւ լոգր	sea crme	116.	Ssure Lower Compl.	Prod. Zone	Rer	nanke
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ower Hour,		5:05 PM	Length		SI pre		Stabilized?
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hour, date 9:00 AM		ce ** l	Deber Compr.	Lower Compl.	Temp.	nem kem	arks
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S	an Juan	County,	New Mexico				
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#### NORTHWEST BLW MUNICO PACKER LEAKAGE TEST INSTRUCTIONS

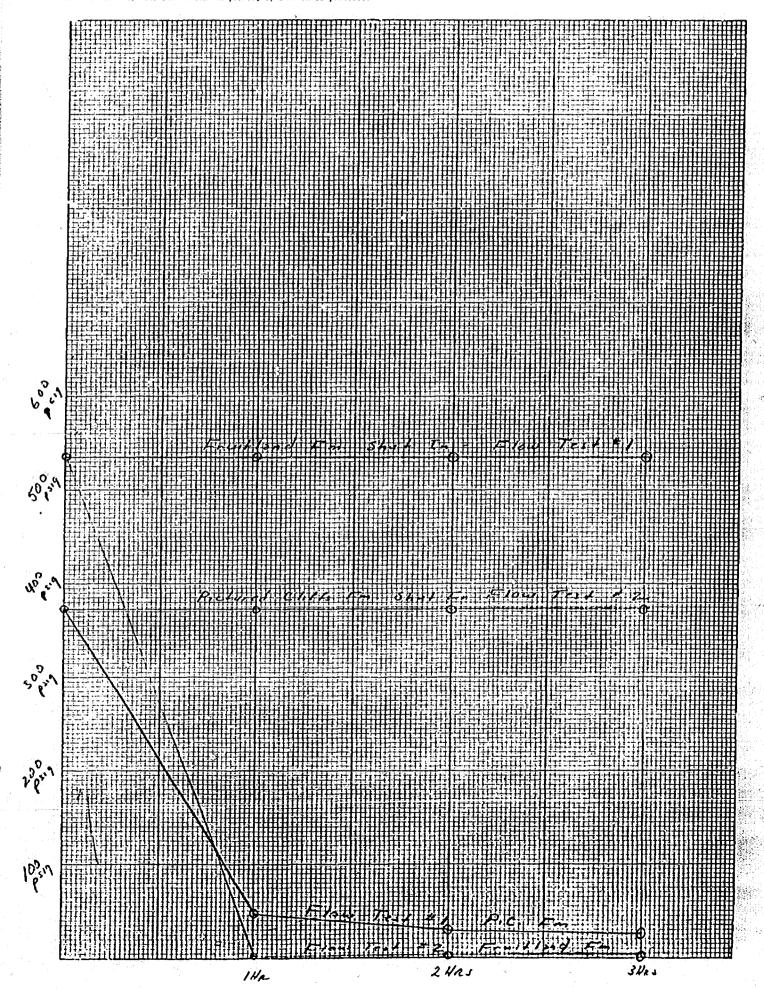
Notement NLW MUNICO PACHE LIARAGE TEST INSTRUCTIONS

A packer leabage test shall be consequenced on each multiply completed
1 within seven days after actual completion of the well, and annually
1 within a presented by the order authorization the multiple completion,
20 thems shall also be completion and/or charlest or fracture treatment,
20 thems shall also be completion and/or charlest or fracture treatment,
21 whenever receival work has been done on a vell during which the packer
22 to organization is supported or when requested by the Univision.
23 thems they received or when requested by the Univision.
24 least 72 hours prior to the compandement of any packer leakage test,
22 operator shall nearly the fluvision in writing of the exact time the
23 is to recovered. Offset operators shall also be so matified.
24 the recovered of the fluvision in writing of the dual
25 this is not a shall content when both rones of the dual
26 this mental the will-read pressure in each has stabilized, provided
27 that they meed not read in the dual completion shall be produced
28 thours in the continued for rever days in the case of a gas well and
29 thours in the case of an oil well. Note:
30 picture continued for rever days in the case of a gas well and
30 thours in the case of an oil well. Note:
31 picture continued for rever days in the case of a gas well and
31 thours content in the flew juried shall be three hours.

32 Policians contents of Flow Test No. 1, the well shall again be shut-

ensures for gas-zone tents rust be reasoned in each zone waight pressure gause at time intervals as follows: Bebying itself prior to the beginning of each flower rust, at fittee also during the first than thereof, not at each priority is about in one pressure respectable for each flow priority. There is no of each flow period. There is no distributions are flow priority as a few many of each flow period, as here as the during set flow presentably the radway parts, and involved priority the confirmately the radway parts, and involved priority that the defeate flow period.

4. The results of the stove-described tests shall be filed in triplicate within 15 days after conjection of the test. Tosts shall be filed with the Azico District Office of the Oil Tenservation District on Markivest New Resizo Fastrict Leakage Test Form New Resizo Holling triplicated thereon as well as the flowing triplication (gas rone oily) and gravity and GoW (oil tens only). A pressure versus time curve for each rone of each test shall be constructed on the reverse side of the Facker Leakage Test Form with All deadweight pressure points taken intracted thereon. For oil zones, the pressure curve should also intracte all key pressure changes which may be reflected by the recording stude charts. These key pressure changes should also the trent of the Facker Leakage Test Forn.



Amoco A. DEDICATED ACREAGE Aloha #1 Well Galleye NM 013365 Flag-Redfern Oil Co. B. MM 013365 15<sup>Ealon Fa</sup>erathon Flag-Redfern Oil Co. NM 010063 George E. Willett Amoco Curtis Little Bradley Keyes D. SF 080844 National Drilling Co. E. NM 013365 Dugan Production Corp. Ga!14905 F. MM 021116 Flag-Redfern Oil Co. NM 010063 George E. Willett Curtis Little Bradley Keyes ALOHA #1 WELL OFFSETTING LEASES AND OPERATORS APPLICATION FOR DOWNHOLE COMMINGLING

Flag-Redfern Oil Co.

Aloha #1 & #2 Wells
Unit L & D, Sec. 16, T-28-N, R-11-W
San Juan County, New Mexico

Case No. 7121 Exhibit No. /

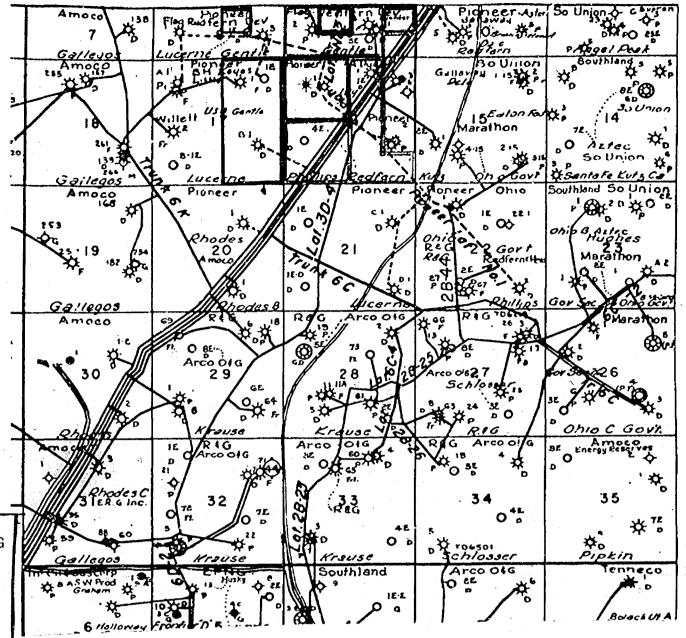
- A. NM 020982
  Flag-Redfern 0il Co.

  B. NM 010063
  Flag-Redfern 0il Co.
- C. MM 013365 Flag-Redfern 0il Co.
- D. NM 013365
  Dugan Production Corp.
- E. NM 010063 Flag-Redfern 0il Co.
- F. MM 010063
  George E. Willett
  Curtis Little
  Bradley Keyes
- G. NM 021116 Flag-Redfern 0il Co.
- H. DEDICATED ACREAGE
  Aloha #2 Well
  Flag-Redfern Oil Co.

ALOHA #2 WELL

OFFSETTING LEASES AND OPERATORS

APPLICATION FOR DOWNHOLE COMMINGLING
Flag-Redfern Oil Co.
Aloha #1 & #2 Wells
Unit L & D, Sec. 16, T-28-N, R-11-W
San Juan County, New Mexico
Case No. 7121
Exhibit No. \_/-A



FLAG-REDFERN OIL CO. Aloha #1 1710' FSL - 790' FWL Sec 16 T28N R11W San Juan County, NM APPLICATION FOR DOWNHOLE COMMINGLING
Flag-Redfern Oil Co.
Aloha #1 & #2 Wells
Unit L & D, Sec. 16, T-28-N, R-11-W
San Juan County, New Mexico
Case No. 7121
Exhibit No. 之

#### MORNING REPORT

- 11-7-80 MIRU Morrow Drlg. Co. Rig. Spudded 8-3/4" hole @ 10:30 a.m., 11-6-80. Drilled to 127'. Ran 3 jts 7" 0.D., 23#, 8 Rd., ST&C "B" cond. csg. T.E. 123.76' set @ 125' G.L. cemented w/ 60 sx class "B". P.O.B. @ 2:00 p.m., 11-6-80. Good cement to surface. W.O.C.
- 11-8-80 Drig. 5" hole @ 780'.
- 11-9-80 Drlg. 5" hole @ 1180'. Well kicked @ 960'). Mixed gel & starch well is now completely under control. No mud properties available.
- 11-10-80 T.D. 1690'. Laying down drill pipe, prep to run 2-7/8" csg.
- 11-11-80 Laid down drill pipe. Ran 60 jts. 2-7/8" 0.D. 6.4# CW55-10RD NEUE tbg for csg. T.E. 1692.51' set @ 1692' G.L. Had good circulation throughout job. Cemented w/ 75 sx extended slurry followed by 75 sx class "B" neat. Bumped plug w/ 1200 psi. Held OK. Shut in w/ 750 psi. Circulated trace of cement. P.O.B. 11:10 a.m. 11-10-80.
- 11-25-80 Rigged up Southwest Surveys. Ran GR/Neutron/CLL from PBTD 1657' to 850'. Rigged up FWS swabbing unit. Swabbed well down to 1100'. Perf zone 1597'-1603', 6', 1 SPF, .43" diam. hole, 6 holes w/ 2-1/8" bi-wire glass jet gun. Perf 1311'-1326', 15', 1 SPF, .43" diam hole, 15 holes w/ 2-1/8' bi-wire glass jet gun. Well unloading while pulling gun out of the hole.

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FLAG-REDFERN OIL CO. Aloha #1 Page 2

11-28-80 Rig up FWS to run tubing. Ran Baker model D packer on 43 jts of 1½", 10R, EUE, new tubing. T.E. 1366.92 set @ 1365' GL. Set packer in tension. Well making gas on annulus. Shut in annulus. Annulus built up to 400 psi in 10 min. Tubing making slight amount of gas.

Rigged up Cementers Inc. acid truck and 3 Rivers water hauling. Pumped 150 gals 15% HCL w/ inhibitor down casing and displaced w/ 3.8 bbls of water. Breakdown pressure 1550 psi. 950 psi pressure while pumping @ 3/4 BPM. ISDP 450 psi. 0 psi in 7 mins. after shut-in. No indication of communication on annulus noted. Pumped 150 gal of 15% HCL w/ inhibitor down annulus and displaced w/ 4.1 bbls of water. Breakdown pressure 1100 psi, 750 psi prssure while pumping @ 1 BPM ISDP 550. 200 psi in 5 mins after shut in. No indication of communications w/ tubing noted. Well flowing while pulling packer. Well left open for 4 hrs. Shut in.

- Rigged up the Western Co. and foam fraced the P.C. & Fruitland formations (1597-1603 & 1311-1326) w/ 70% quality foam.

  Pressure tested lines to 4800 psi. Placed 4000 gal pad of 70% quality foam ahead of 5000 gals of 70% quality foam w/ 1 ppg of 10-20 sand, followed by 7500 gals of 70% quality foam w/ 2 ppg of 10-20 sand. Placed 2000 gal of 70% quality foam pad and dropped 10 balls (7/8" diam, 1.3 sg) followed by 7500 gals of 70% quality foam w/ 2 ppg of 10-20 sand. Displaced w/ 340 gals of 70% quality foam. ISDP 1000 psi; 15 min shut-in 900 psi. Maximum pressure 1700 psi, minimum pressure 1400. Average pressure 1650 psi. No ball action noted. IR 15 BPM. Materials used. 194,040 SCFN2, 35,000# 10-20 sand, 175 bbls of water, 41 gals adafoam, 182 HHP, 10 balls (7/8" diam., 1.3 sg). Well opened to atmosphere thru 5/8" choke 2 hrs after treating.
- Rigged up FWS pulling unit. Rigged up wellhead. Ran and landed the following tubing string; I swab stop (.40'); 7 jts 1½", 10R, EUE, 2.4#/ft, J-55, new tubing (228.50'); I Baker model "C" packer set in tension (1.68'); 42 jts 1½", 10R, EUE, 2.4#/ft., J-55, new tubing (1364.59'). TE 1595.17' set at 1594' GL, packer set in tension at 1364' GL. No sand tagged. Annulus making gas, tubing making gas and misting soapy water. Well shut in.

d<sub>p</sub>

FLAG-REDFERN OIL CO. Aloha #2 850 FNL - 870' FWL Sec 16 T 28N R11W San Juan County, NM APPLICATION FOR DOWNHOLE COMMINGLING
Flag-Redfern 0il Co.
Aloha #1 & #2 Wells
Unit L & D, Sec. 16, T-28-N, R-11-W
San Juan County, New Mexico
Case No. 7121
Exhibit No. 2-A

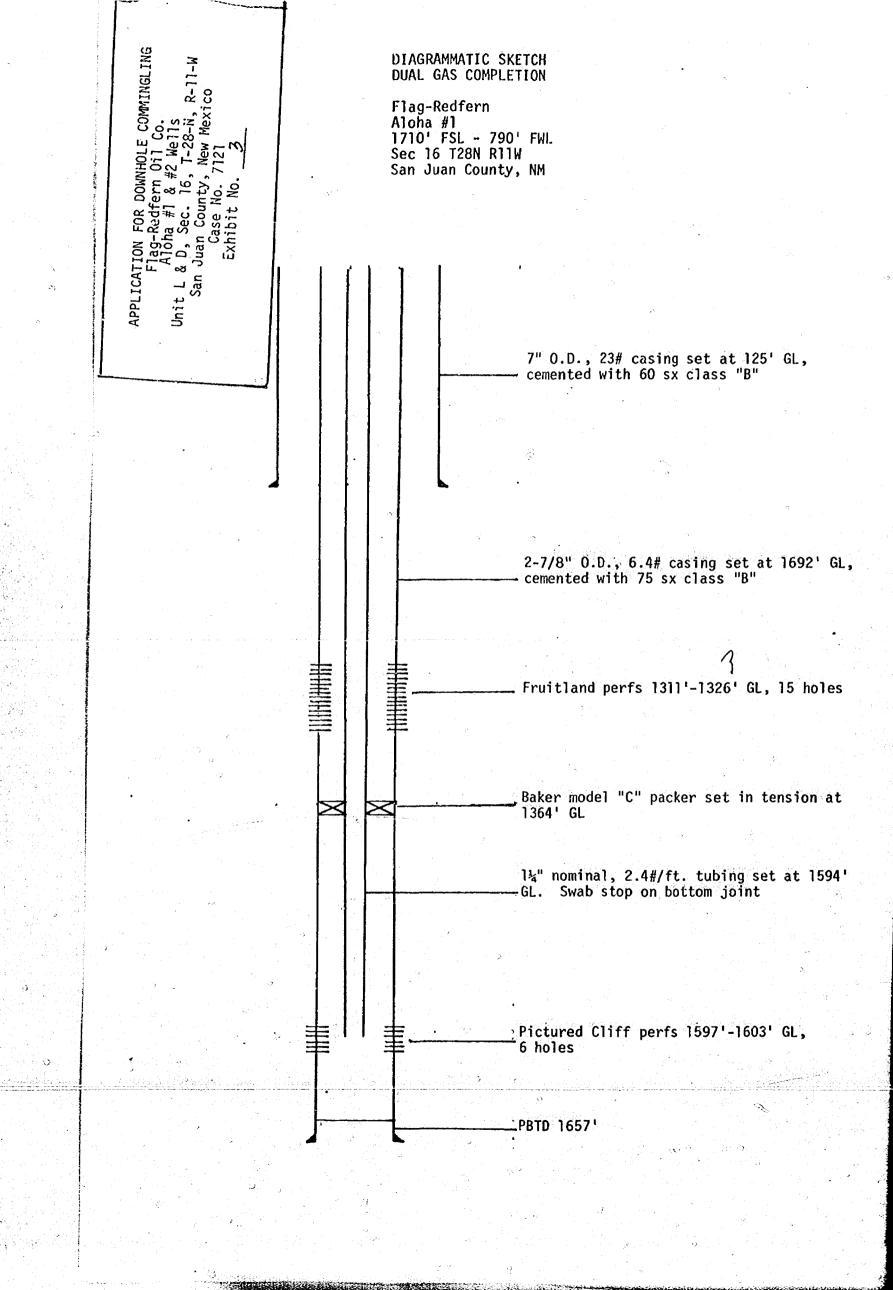
#### MORNING REPORT

- Moved in and rigged up Morrow Drlg. Co. rig. Spudded 8-3/4" hole at 9:30 a.m. 11-12-80. Drilled 126'. Ran 3 jts. 7" 0.D. 23#, 8R, ST&C, "B" Cond csg. T.E. 123.15 set at 125' G.L. Cemented w/ 60 sx class "B". P.O.B. at 3:00 p.m. 11-12-80. Good cement to surface. W.O.C.
- 11-14-80 Repairing hydraulic pump on rig. Well kicked at 500'.
  Mixed gel and starch. Well is now completely under control.
  No mud properties available.
- 11-15-80 Drlg. 1100' Wt. 10. Vis 48 Ph 9.5 Wt. 8 No trouble with gas kick on last trip.
- 11-16-80 1400' Drlg. W.t 10.1 Vis 45
- 11-17-80 T.D. 1740 Ran I.E.S. log by Welex. Now prep to run 2-7/8" tbg. for csg.
- 11-18-80 T.I.H. w/ drill pipe. Circ. hole 1 hr. Laid down drill pipe; rigged up and ran 60 jts 2-7/8" O.D., 6.4#, 10 Rd., NEUE tbg for csg.
  T.E. 1741.47' set @ 1740' G.L. Cemented w/ 90 sx 2% Lodense followed by 75 sx class "B" neat. Reciprocated pipe OK while cementing. Good returns while cementing. Trace of contaminated cement to surface. P.O.B. @ 3:30 p.m., 11-17-80.
- Rigged up FWS swabbing unit and Southwest Surveys. Swabbed well down to 1200'. Ran GR/CLL from PBTD 1713' to 1000'. Note: All depths are set back to open hole IES log. Perf zone 1582'-1588', 6', 1 SPF, .43" diam. hole, 6 holes w/2-1/8" bi-wire glass jet gun. Perf 1350-1357', 7', 1 SPF, .43" diam hole, 7 holes, w/2-1/8 bi-wire glass jet gun. Swabbed well 3 times. Small amount of gas flowing, no liquid entry apparent.

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FLAG-REDFERN OIL CO. Aloha #2 Page 2

- Rigged up FWS. Ran Baker model D packer in tension on 43 jts of 1½", 10R, EUE new tubing. T.E. 1399.42' set 0 1398 GL. Small amount of gas flowing up tubing, annulus dead. Rigged up Cementers, Inc. Pumped 150 gals of 15% HCL w/ inhibitor and displaced w/ 3.8 bbls of water. Breakdown pressure 1400 psi. Acid placed 0 3/4 BPM 0 850 psi. ISDP 200. No indications of communications w/ annulus. Pumped 150 gals of 15% HCL w/ inhibitor and displaced w/ 4.5 bbls of water. Breakdown pressure 1600 psi. Acid placed 0 3/4 BPM 0 1100 psi. ISDP 625 psi. Shut annulus in 15 min.-pressure 600 psi. Well flowing back on annulus.
- 11-29-80 Pulled 43 jts of 1½", 10 R, EUE tubing and Baker model D packer. Well unloading while pulling tubing. Swabbing well.
- Rigged up the Western Co. and foam fraced the P.C. and Fruitland formations (1582-1588 & 1350-1356) w/ 70% quality foam. Pressure tested lines to 3500 psi. Placed 4000 gal pad of 70% quality foam ahead of 5000 gal of 70% quality foam w/ 1 ppg of 10-20 sand, followed by 7500 gals of 70% quality foam w/ 2ppg of 10-20 sand. Placed 2000 gal of 70% quality foam pad and dropped 10 balls (7/8" diam., 1.3 sg) followed by 7500 gals of 70% quality foam w/ 2 ppg of 10-20 sand. Displaced w/ 340 gals of 70% quality foam. ISDP 1000 psi; 15 min. shut-in 900 psi. Maximum pressure 1825 psi, minimum pressure 1600 psi, average pressure 1700 psi. No ball action noted. IR 15 BPM. Materials used: 200,250 SCF of N2; 35,000# 10-20 sand, 189 bbl of water, 42 gals adafoam, 195 HHP, 6 balls (7/8" diam., 1.3sg). Well opened to atmosphere thru 3/4" choke 2 hrs after treating.
- Rigged up FWS. Set wellhead. Tagged sand w/ tubing at 1589 GL. Landed tubing string consisting of 1 swab stop (1.25'); 3 jts ½", 10R, EUE, used tubing (97.62'); 1 Baker model "C" packer set in tension (2.25'); and 45 jts ½", 10R, EUE, used tubing (1463.34'). T.E. 1564.46' set at 1563 GL, packer set at 1463' GL in tension. Well making gas and slugs of soapy water from tubing and gas from annulus. Well left open for clean up.



DIAGRAMMATIC SKETCH DUAL GAS COMPLETION Flag-Redfern Co. Aloha #2 850 FNL - 870' FWL Sec 16 T28N R11W San Juan County, NM Unit  $7^{\prime\prime}$  0.D., 23# casing set at 125' GL, cemented with 60 sx class "B" cement 2-7/8" 0.D., 6.4# casing set at 1740'GL, cemented with 75 sx class "B" cement Fruitland perfs at 1350-1357' GL, 7 holes Baker Model "C" packer set at 1463' GL in tension  $1\frac{1}{4}$ " O.D. nominal, 2.4# tubing set at 1563' GL. Swab stop on bottom joint Pictured Cliff perfs at 1582'-1588' GL, 6 holes PBTD 1713' GL

## ATION DIVISION

SANTA FE, NEW MEXICO 8750 I

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	L	н	Co . 6	2 est.	% H 2		% H <sub>2</sub> S	Pro	ye;	Meler	Hun	laps
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## OIL CONSERVATION DIVISION 17. O. BOX 2088 SANTA FE, NEW MEXICO 87501

form C-127 Revised 10-1-7

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## STATE OF NEW MEXICO ( ENCRSY AND MILLERALS DECARREMENT

# OIL CONSERVATION DIVISION P. O. DOX 2088 SANTA FE, NEW MEXICO 07501

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STATE OF HEW MEXICO () IF. O. DOX 2088 () THERSY AND MILITARES DEPARTMENT SANTA FE, NEW MEXICO 87501

771.0 7001	(X) Initial	C	] Annual		☐ Sr	necial	12-17	-80			
	ern Oil C	o	Connect	•	,						
Pinon		•	Frui	t1and	•		_		Unit		
Completion Dat 12-2-80		70101 Depth 17404		Plug line	713'		Elevetion 5578		Alc	ha ha	m <del>o</del>
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719. 6120 ] 13"	Wi. 2.4#	d	1563'	Perioralia From a	nnular	spac	ee .		Unii D		7wp. Ay. 28N 11W
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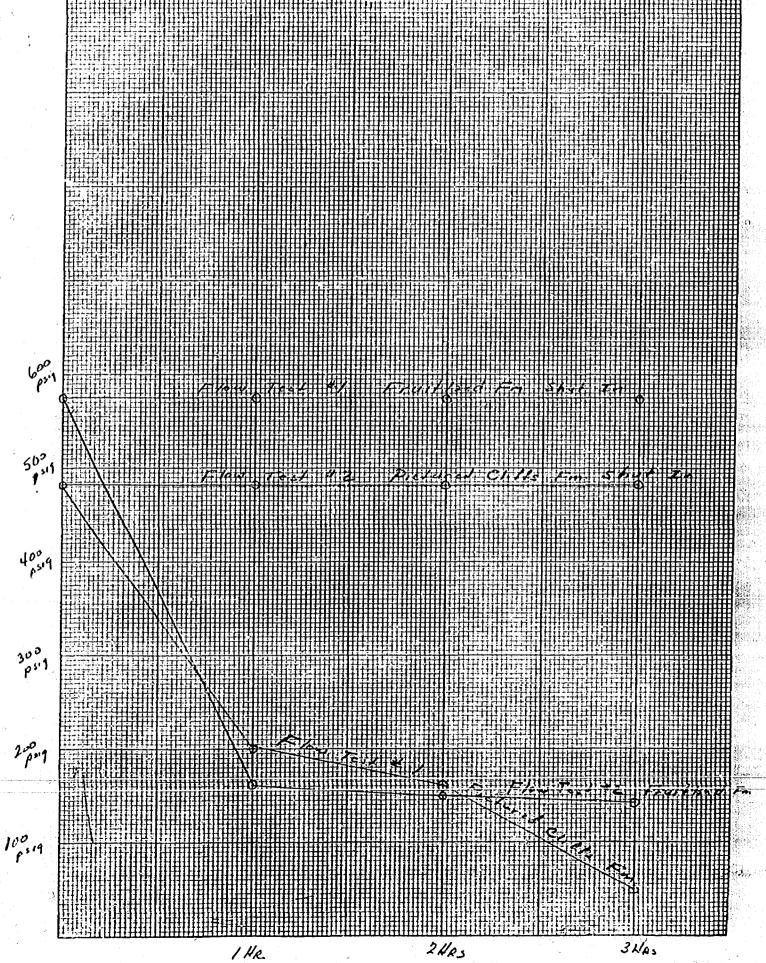
This form in the to be used for reporting pather leabage train in Southeast New Mexico.

## NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator_	Flag-R	edfern O	il Company	Ţ	_easeA1	loha '	Well Nol
Location			16 Twp. 28No	orth Rg	ge. 11 West	t County	y San Juan
				Type of Prod	i. Method	d of Prod.	Prod. Medium (Tbg. or Csg.)
Upper Completion	ł.			Gas	Flow	111	Csg.
7			ictured Cliffs	<del></del>	Flow		Tbg.
			PRE-FI	PLOW SHUT-IN PR	ESSIRE DATA	200	Stabilized?
Compl Si	nut-in 10	):00 am 1	12-3-80 Length of Length of Length of time shut	t-in 7 days	SI pre	3 5/5	(Yes or No) NU
Compl St	nut-in 10	J:00am 12	2-3-80 time shu	t-in 7 days	SI pres		Stabilized? NO (Yes or No) NO
Conmenced	at (hour	r, date)	)* 9:00 am]2-10	FLOW TEST NO	Zone pi	roducing (Upps	er or Lower):lower
Time (hour, dat	Laps	sed time	Press	sure Lower Compl.	Prod. Zone Temo.	Rem	marks
9:00am 12	10-80	0	575	482	43	Start test 4	²" choke
10:00am 12	10-80	1 hr	575	200	41		
11:00am 12	-10 80	2 hr	575	160	41		
12:00am 12	10-80	3 hr	575	48	47		
		-		19	2 2		
Production Oil: 0	)	ROPD has	ased on	Bbls. in	ess <u>w</u> Hrs	s. Gra	evGOR
Gas: 329	AUF	M	MCFPD; Tested tl MID-TE:	thru (Orifice o EST SHUT-IN PRE	or Meter): ESSURE DATA		
Joper Hour	, date	•00am 12-	Length o	f 14 day	SI pres	SS. 575	Stabilized? NO (Yes or No) NO
Lower Hour	, date	·00am 12-1	Length of time shut-	f 7. day	SI pres s psig	5\$•	Stabilized? (Yes or No) NO
Commenced a	<u> </u>	<u> </u>		FLOW TEST NO	2 Zone pro	roducing (Unner	
Time	Lapse	ed time	Pressi	ure	Prod. Zone		r or Lower):upper
(hour, date 1:00pm 12-	1.	nce **	Upper Compl. I	Lower Compl.	Temp.	Rema	arks
}				482		Start test 3/4	4" choke
2:00pm 12-		1 hr	161	482	54		
3:00pm 12-		2 hr	149	482	55	<u> </u>	
4:00pm 12-	17-80	3 hr	142.5	482	54	<del></del>	
-		33.55		<del></del>		·	
Production	rate du	ring tes'	ŧ.				
Oil: 0		BOPD bas	sed on MCFPD; Tested t	Bbls. in Orifice	Hrs.	Grav	GOR
REMARKS:	Au		Will, I	III Comme	Transfer and	<u> </u>	
(Carmina)		~~~~~					
	cify that	t the in	nformation here	in contained i	s true and	complete to t	
owledge.				pperator	Flag-Redfe	ern 011 Company	<b>4. 1</b>
VODI TCA.	TION FOR	nowNH0L	E COMMINGLING	Ву	Thomas A. [	Dugan 2.4	Mugan
ALLES	Flag-Redf	lfern Oil #1 & #2 We	Co.	itle	Agent	<b>S</b>	
Unit L /	& D. Sec.	. 16, T-2	28-N, R-11-W W Mexico	ate	1-13-81	· · · · · · · · · · · · · · · · · · ·	
Jun	Case	No. 7121	21				
		. f. tttee	<b>2</b>	ì			

age. If a well is a discoll or an oil-gas label corpletion, the graphe shall be required on the oil zone only, with deadwords required above heing taken on the gas zone.

The results of the above-described tests shall be filled in the second of the second of the fall of



### NORTHWEST NEW MEXICO PACKER-LEAKAGE TEST

Operator	Flag-Redfer	n 011 Company	L	easa	Aloha	Well . No. 2
Location						
OI MeTT: O			Type of Prod	<ul> <li>Kethod</li> </ul>	of Prod.	Prod. Medium
Upper	Name of Resa	rvoir or Pool	(Oil or Gas)	(Flow or	Art. Lift)	(Tbg. or Csg.)
Completion	Pinon Fru	itland	Gas	Flow		Csg.
	Fulcher-Kutz	Pictured Cliffs		Flow		Tbg.
Upper Hour,	date 10:00	AM Length	LON SHUT-IN PRI	SI pres	68.	Stabilized?
	-in 12/3/8	j time shu	t-in 7 days	psig	535	(Yes or No) No
Lower Hour, Compl Shut	30 10 10	AM Length of time shu	t-in 7 days	SI pres	372	Stabilized? (Yes or No) NO_
Commonand at	(hour data)		FLOW TEST NO	). 1		r or Lower):Lower
rime	rapsed time		sure	Prod. Zone		
(hour, date) 2:05 PM	since*	Upper Compl.	Lower Compl.	Temp.	Rem	arks
12/10/80		535	372	49°	Start test	1/2" choke
3:05 PM 12/10/80	1 Hr.	535	47	48°		
4:05 PM			:			
12/10/80 5:05 PM		535	38	48°		· · · · · · · · · · · · · · · · · · ·
12/10/80	3 Hr.	535	26	48°		
						$\hat{\nu}_{i}$
						. 4
Production ra	ate during tes	st sed on	Phle in	Hne	Cna	r COB
Gas: 207 AC	)F N		Bbls. in hru (Orifice o		· Ula	GOIL
Upper Hour,	late 10:00 A	7	ST SHUT-IN PRE	SSURE DATA SI press	3.	Stabilized?
Compl Shut-	in 12/3/80	time shut	-in 14 days	osig	535	(Yes or No) NO
Compl Shut-	late 5:05 PM -in 12/10/8	Length o	-in 7 days	SI press psig	372	Stabilized? (Yes or No) No
		* 9:00 AM 1	FLOW TEST NO	. 2	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	or Lower):Upper
Time	Lapsed time	Press	ure ] i	Prod. Zone		
(hour, date) 9:00 AM	since **	Upper Compl.	Lower Compl.	Temp.	Rema	rks
12/17/80 10:00 AM	00	535	372	60°	Start test 3/4	l" choke
. 12/17/80	1 Hr.	1	372	54°		
11:00 AM 12/17/80	2 Hr.	_		-		
12:00 AM		]	372	53°		
			372	53°		
12/17/80	3 Hr.	1	372 372	53° 50°		
12/17/80						
	3 Hr.	1				
Production ra	3 Hr.	1	372	50°	Grav.	GOR
Production ra	3 Hr.	1	372	50°	Grav.	GOR
Production ra	3 Hr.	1	372	50°	Grav.	GOR
Production radioil: 0 Gas: 160	3 Hr.	1	372	50°	Grav.	GOR
Production rational control of the c	3 Hr.  te during tes  BOPD bas	t sed on MCFPD; Tested t	372	Hrs.		
Production rational control of the c	3 Hr.  te during tes  BOPD bas	t sed on MCFPD; Tested t	Bbls. in hru (Orifice o	Hrs. r Meter):	complete to t	he best of my
Production radoil: 0 Gas: 160 REMARKS:	3 Hr.  te during test BOPD base AOF	t sed on MCFPD; Tested t	Bols. in_hru (Orifice of Operator_	Hrs. r Meter):	complete to t	he best of my
Production ration of the control of	3 Hr.  te during test BOPD base AOF	t sed on MCFPD; Tested t	Bbls. in hru (Orifice of Operator	Hrs. r Meter): s true and Flag-R Thomas	complete to t	he best of my
Production ration of the control of	3 Hr.  te during test BOPD base AOF  y that the in	Tested to the section of the section	Bols. in_hru (Orifice of Operator_	Hrs. r Meter): s true and Flag-R Thomas	complete to t	he best of my
Production rational control of the c	3 Hr.  te during test BOPD back AOF  y that the in  N FOR DOWNHOLE g=Redfern 0il oha #1 & #2 We	formation here  COMMINGLING Co.	Bbls. inhru (Orifice of the contained in Contained	Hrs. r Meter): s true and Flag-R Thomas	complete to t edfern Oil Co Ogan	he best of my
Production radioil: 0 Gas: 160 REMARKS: hereby certifolication Flace All Unit L & D San June	3 Hr.  te during test BOPD base  AOF  N FOR DOWNHOLE g=Redfelin 0:1 oha #1 & #2 We , Sec. 16, T-2 an County, New	formation here  COMMINGLING Co. 11s 8-N, 'R-11-W Mexico	Bbls. inhru (Orifice of the contained in Contained	Hrs. r Meter): s true and Flag-R Thomas Agent	complete to t edfern Oil Co Ogan	he best of my
Production radioil: 0 Gas: 160 REMARKS: hereby certifolication Flace All Unit L & D San June	a Hr.  te during test BOPD base AOF  N FOR DOWNHOLE g=Redfern 0il oha #1 & #2 We , Sec. 16, T-2	formation here  COMMINGLING Co. 11s 8-N, 'R-11-W Mexico	Bbls. inhru (Orifice of the contained in Contained	Hrs. r Meter): s true and Flag-R Thomas Agent	complete to t edfern Oil Co Ogan	he best of my

#### CHARLET MAK MERCICO PACEER LEAKADE TEST INSTRUCTIONS

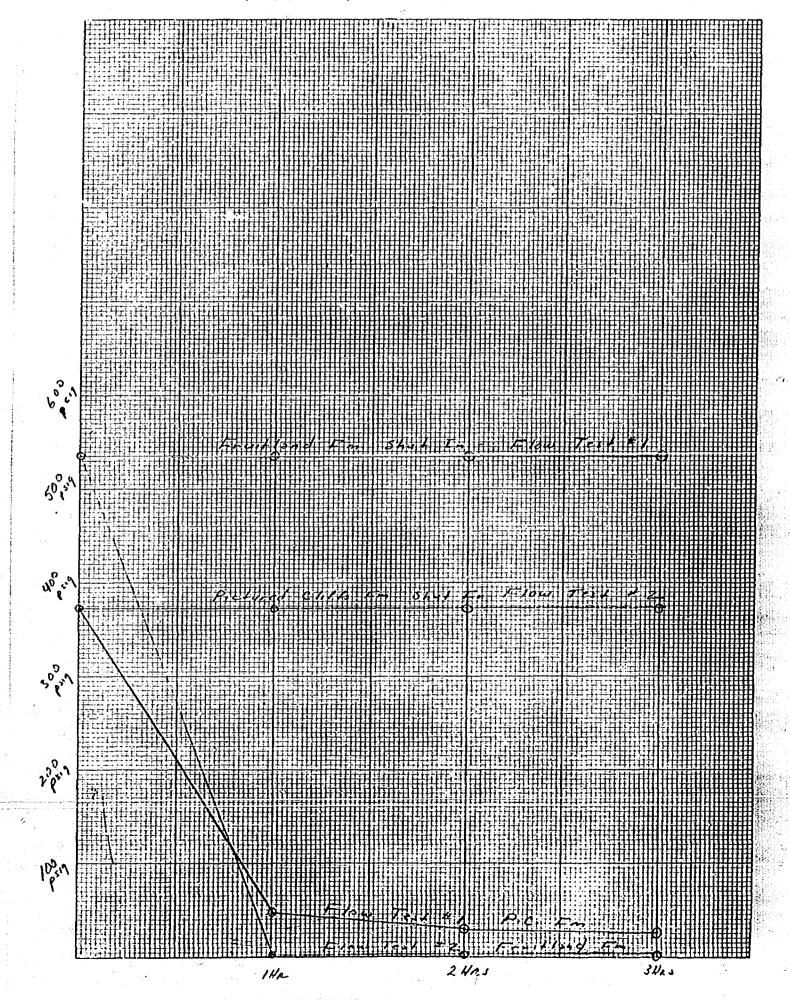
In least 72 noise prior to the correspond by the invision.

In least 72 noise prior to the correspond of any packer leakage test, operator shall herify the Davision in writing of the exact time the is to be corrected. Offert operators shall also be so notified.

The proker leakage test shall concease when both zones of the dual least in an experience of the state of the dual least in an experience of the state in each has statilized, provided more, that they need not remain shut-in more than seven days.

For like test No. 1, one zone of the dual completion shall be produced to normal rate of production while the other zone remains shut-in, test field to continued for seven days in the case of a gas well and 14 hours in the case of an oil well. Note: If, on an initial picker is tost, a gas well is rough flowed to the stronghere due to the lack pipeline confiction that No-paried shall be three hours.

Justice test to 2 shall be conducted even though no leak was indicated the Note to the lack proceedings with largeraph 3 above.



#### WAIVER OF OBJECTION AND CONSENT TO

#### THE DOWNHOLE COMMINGLING OF THE ALOHA #2 WELL

JAN 0 9 1931

Case >120

SANTA FE

The undersigned, as an Operator of a lease offsetting the NW/4 of Section 16, Township 28 North, Range 11 West, N.M.P.M., San Juan County, New Mexico, does hereby acknowledge receipt of the Application for Downhole Commingling of the Aloha #2 Well.

The Undersigned hereby waives any objection to this

Application and voluntarily consents to the commingling of
the Aloha #2 Well as stated in the above mentioned Application.

Dated this 1th day of January, 1981.

Signed:

Curtis Little/P.O. Box 2487

Farmington, NM 87401

Please send one executed copy to Joe D. Ramey, Division Director, New Mexico Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico, 87501, and return one executed copy to Dugan Production Corp., P.O. Box 208, Farmington, NM 87401. The remaining copy is for your files.

# JAHO 9 THE DOWNHOLE COMMINGLING OF THE ALOHA #1 WELL

The undersigned, as an Operator of a lease offsetting the SW/4 of Section 16, Township 28 North, Range 11 West, N.M.P.M., San Juan County, New Mexico, does hereby acknowledge receipt of the Application for Downhole Commingling of the

The Undersigned hereby waives any objection to this

Application and voluntarily consents to the commingling of
the Aloha #1 Well as stated in the above mentioned Application.

Dated this \_\_\_\_\_\_ day of January, 1981.

Aloha #1 Well.

Signed:

Curtis Little P.O. Box 2487

Farmington, NM 87401

Please send one executed copy to Joe D. Ramey, Division Director, New Mexico Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico, 87501, and return one executed copy to Dugan Production Corp., P.O. Box 208, Farmington, NM 87401. The remaining copy is for your files.

## dugan production corp.

Case >/20

December 29, 1980

Joe D. Ramey
Division Director
New Mexico Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

Re: Application for Downhole Commingling Aloha #2 Well (Fulcher Kutz Pictured Cliffs Pool and Pinon Fruitland Pool) San Juan County, NewsMexico

Dear Mr. Ramey:

Enclosed please find three copies of the above referenced Application.

I previously verbally requested this matter be placed on the January 14, 1981 Docket and was advised by the New Mexico Oil Conservation Division that this request would be honored. I was also advised that a written application must be filed with the NMOCD on or before January 3, 1981.

Please advise if you need further information.

Sincerely,

Johnny Roberts

Landman

TR:nw

**Enclosures** 

709 BLOOMFIELD RD. • P. O. BOX 208 • FARMINGTON, NEW MEXICO 87401 • PHONE: 505-325-1821

Joe Ramey December 29, 1980 Page Two

cc: George E. Willett
Box 548
Lemoore, California 93245

## WAIVER OF OBJECTION AND CONSENT TO THE DOWNHOLE COMMINGLING OF THE ALOHA #1 WELL

The undersigned, as an Operator of a lease offsetting the SW/4 of Section 16, Township 28 North, Range 11 West, N.M.P.M., San Juan County, New Mexico, does hereby acknowledge receipt of the Application for Downhole Commingling of the Aloha #1 Well.

The Undersigned hereby waives any objection to this

Application and voluntarily consents to the commingling of
the Aloha #1 Well as stated in the above mentioned Application.

Dated this 12 day of January, 1981.

Signed:

Brād Keyes General Delivery Aztec, NM 87410

Please send one executed copy to Joe D. Ramey, Division Director, New Mexico Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico, 87501, and return one executed copy to Dugan Production Corp., P.O. Box 208, Farmington, NM 87401. The remaining copy is for your files.

## WAIVER OF OBJECTION AND CONSENT TO THE DOWNHOLE COMMINGLING OF THE ALOHA #2 WELL

The undersigned, as an Operator of a lease offsetting the NW/4 of Section 16, Township 28 North, Range 11 West, N.M.P.M., San Juan County, New Mexico, does hereby acknowledge receipt of the Application for Downhole Commingling of the Aloha #2 Well.

The Undersigned hereby waives any objection to this

Application and voluntarily consents to the commingling of

the Aloha #2 Well as stated in the above mentioned Application.

Dated this \_\_\_\_\_ day of January, 1981.

Signed:

Brad Keyes General Delivery Aztec, NM 87410

Please send one executed copy to Joe D. Ramey, Division Director, New Mexico Oil Conservation Division, P.O. Box 2088, Santa Fe, New Mexico, 87501, and return one executed copy to Dugan Production Corp., P.O. Box 208, Farmington, NM 87401. The remaining copy is for your files.

OIL CONSERVATION DIVISION

STATE OF NEW MEXICO

IN THE Matter of the Application of Flag-Redfern Oil Co. for Downhole Commingling of the Aloha #2 Well in San Juan County, New Mexico

## **APPLICATION**

Pursuant to Rule 303 C of the Rules and Regulations of the State of New Mexico Oil Conservation Division, The Applicant, Flag-Redfern Oil Co., by and through its agent, Thomas A. Dugan, hereby makes application for approval of downhole commingling in the well bore of the Aloha #2 Well in San Juan County, New Mexico.

The Applicant further states:

- 1. The Operator of the Aloha #2 Well will be the Applicant, Flag-Redfern Oil Co., whose address is P.O. Box 208, Farmington, New Mexico, 87401.
- 2. The Aloha #2 Well will be located on Federal Oil and Gas Lease Serial #NM 013365 insofar as said lease covers the following described lands:

Township 28 North, Range 11 West, NMPM
Section 16: SE/4 SE/4, W/2 SE/4, W/2 NE/4, W/2
(Fulcher Kutz Pictured Cliffs Pool)
Section 16: SE/4 SE/4, W/2 SE/4, W/2 NE/4, W/2
(Pinon Fruitland Pool)

3. The legal location of the well will be as follows:

Township 28 North, Range 11 West, NMPM
Section 16: Unit Letter D
San Juan County, New Mexico

- 4. The Aloha #2 Well has not presently been approved for dual completion in the Fulcher Kutz Pictured Cliffs Pool and the Pinon Fruitland Pool.
- 5. The Aloha #2 Well will be capable of only low marginal production from the Fulcher Kutz Pictured Cliffs Pool, and will be capable of only low marginal production from the Pinon Fruitland Pool.
  - 6. The ownership of the above mentioned Pools is common.
- 7. The proposed commingling from the above Pools will result in the recovery of additional hydrocarbons, the prevention of waste and the protection of correlative rights.

WHEREFORE, the Applicant requests this Application be set for hearing on January 14, 1981, and that after said hearing the New Mexico 011 Conservation Division grant this Application by giving approval to the downhole commingling of the Aloha #2 Well in San Juan County, New Mexico.

Respectfully submitted,

Thomas A. Dugan Agent for Applicant P.O. Box 208

Farmington, N.M. 87401

## ALOHA #2 WELL

Application for Approval of Downhole Commingling Flag-Redfern Oil Co.

### OFFSET LEASES AND OPERATORS

1. USA NM 020982

Township 28 North, Range 11 West, NMPM
Section 8: Lot 2
Section 9: Lots 1,3
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Box 2280 Midland, Texas 79701

2. USA NM 010063

Township 28 North, Range 11 West, NMPM
Section 9: Lots 2,4, SW/4 SE/4,
SW/4 SW/4, SE/4 SW/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Box 2280 Midland, Texas 79701

3. USA NM 021116

Township 28 North, Range 11 West, NMPM

Section 9: SE/4 SE/4

Section 16: E/2 NE/4, NE/4 SE/4

San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701

4. USA NM 013365

Township 28 North, Range 11 West, NMPM Section 16: W/2 NE/4, W/2 SE/4, SE/4 SE/4 San Juan County, New Mexico

OPERATOR: Dugan Production Corp. P.O. Box 208
Farmington, New Mexico 87401

5. USA NM 013365

Township 28 North, Range 11 West, NMPM
Section 16: SW/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701

6. USA NM 010063

Township 28 North, Range 11 West, NMPM
Section 17: E/2
San Juan County, New Mexico

OPERATOR: George E. Willett
Box 548
Lemoore, California 93245

7. USA NM 010063

Township 28 North, Range 11 West, NMPM Section 8: Lot 1, SW/4 SE/4, SE/4 SE/4 San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701 Dockets Nos, 4-81 and 5-81 are tentatively set for January 28 and February 11, 1981. Applications for hearing must be filed at least 22 days in advance of hearing date.

#### DOCKET: EXAMINER HEARING - WEDNESDAY - JANUARY 14, 1981

9 A.M. - OIL CONSERVATION DIVISION CONFERENCE ROOM, STATE LAND OFFICE BUILDING, SANTA FE, NEW MEXICO

The following cases will be heard before Richard L. Stamets, Examiner, or Daniel S. Nutter, Alternate Examiner:

- ALLOWABLE: (1) Consideration of the allowable production of gas for February, 1981, from fifteen prorated pools in Lea, Eddy, and Chaves Counties, New Mexico.
  - (2) Consideration of the allowable production of gas for February, 1981, from four prorated pools in San Juan, Rio Arriba, and Sandoval Counties, New Mexico.
- CASE 7117: Application of Gulf Oil Corporation for a non-standard gas proration unit, unorthodox location, and simultaneous dedication, Lea County, New Mexico. Applicant, in the above-styled cause, seeks approval for the simultaneous dedication of a previously approved 320-acre non-standard proration unit comprising the E/2 of Section 25, Township 20 South, Range 36 East, Eumont Gas Pool, to its L. W. White (NC1-A)Wells No. 2 in Unit I and No. 7 at an unorthodox location 990 feet from the North line and 660 feet from the East line of said Section 25.
- CASE 7118: Application of El Paso Exploration Company for downhole commingling, Rio Arriba County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of South Blanco-Tocito and Basin-Dakota production in the wellbore of its Jicarilla 152 W Well No. 3 in Unit D of Section 7, Township 26 North, Range 5 West.
- CASE 7119: Application of Shell Oil Company for a unit agreement, Bernalillo and Sandoval Counties,
  New Mexico. Applicant, in the above-styled cause, seeks approval for the West Mesa Unit Area,
  comprising 26,722 acres, more or less, of State, Federal, and fee lands in Townships 10, 11,
  and 12 North, Ranges 1 and 2 East.
- CASE 7120: Application of Dugan Production Corporation for downhole commingling, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for the downhole commingling of undesignated Gallup and Basin-Dakota production in the wellbore of its Merry May Well No. 1 in Unit I of Section 24, Township 24 North, Range 10 West.
- Application of Flag-Redfern Oil Co. for downhole commingling, San Juan County, New Mexico.

  Applicant, in the above-styled cause, seeks approval for the downhole commingling of Pinon-Fruitland and Fulcher Kutz-Pictured Cliffs production in the wellbores of its Aloha Wells Nos. 1 and 2 located in Units L and D, respectively, of Section 16, Township 28 North, Range 11 West.
- CASE 7122: Application of Elk Dil Company for salt water disposal, Lea County, New Mexico. Applicant, in the above-styled cause, seeks authority to dispose of produced salt water into the Pennsylvanian formation in the interval from 10,445 feet to 10,516 feet in its C. S. State Well No. 2 in Unit K of Section 25, Township 14 South, Range 34 East, High Plains-Pennsylvanian Pool.
- CASE 7123: Application of Yates Petroleum Corporation for an unorthodox gas well location, Eddy County, New Mexico. Applicant, in the above-styled cause, seeks approval for the unorthodox location of its Federal "AB" Well No. 7, a Morrow test to be drilled 1980 feet from the North line and 660 feet from the West line of Section 9, Township 18 South, Range 25 East, the N/2 of said Section 9 to be dedicated to the well.
- CASE 7124:

  Application of Caribou Four Corners, Inc. for two non-standard proration units, San Juan County, New Mexico. Applicant, in the above-styled cause, seeks approval for two non-standard oil proration units in Section 13, Township 29 North, Range 15 West, Cha Cha-Gallup Oil Pool.

  Colluge. a Do.09-acce unit consisting of those fee lands comprising the NE/4 NW/4 and northermost 16.09 acres of the SE/4 NW/4 of said Section 13, and a 66.33-acre unit consisting of those fee lands comprising the NW/4 NW/4 and northermost 23.33 acres of the SW/4 NW/4 of said Section 13. In the alternative applicant seeks an order directing the escrewing of funds attributable to those lands in the E/2 NW/4 and W/2 NW/4, respectively, of said Section 13 which are not included in the above-described non-standard proration units.

# dugan production corp.

December 29, 1980

Joe D. Ramey Division Director New Mexico Oil Conservation Division P.O. Box 2088 Santa Fe, New Mexico 87501

Re: Application for Downhole Commingling
Aloha #1 Well (Fulcher Kutz Pictured Cliffs
Pool and Pinon Fruitland Pool)
San Juan County, New Mexico

Than Rolling

Dear Mr. Ramey:

Enclosed please find three copies of the above referenced Application.

I previously verbally requested this matter be placed on the January 14, 1981 Docket and was advised by the New Mexico Oil Conservation Division that this request would be honored. I was also advised that a written application must be filed with the NMOCD on or before January 3, 1981.

Please advise if you need further information.

Sincerely,

Joning Roberts

Tommy Roberts Landman

TR:nw

Enclosures

OIL CONS SANTA FE

709 BLOOMFIELD RD. • P. O. BOX 208 • FARMINGTON, NEW MEXICO 87401 • PHONE: 505-325-1821

Joe Ramey December 29, 1980 Page Two

cc: George E. Willett Box 548 Lemoore, California 93245

# OIL CONSERVATION DIVISION STATE OF NEW MEXICO

IN THE Matter of the Application of Flag-Redfern Oil Co. for Downhole Commingling of the Aloha #1 Well in San Juan County, New Mexico

Case 7/21

### **APPLICATION**

Pursuant to Rule 303 C of the Rules and Regulations of the State of New Mexico Oil Conservation Division, The Applicant, Flag-Redfern Oil Co., by and through its agent, Thomas A. Dugan, hereby makes application for approval of downhole commingling in the well bore of the Aloha #1 Well in San Juan County, New Mexico.

The Applicant further states:

- 1. The Operator of the Aloha #1 Well will be the Applicant, Flag-Redfern Oil Co., whose address is P.O. Box 208, Farmington, New Mexico, 87401.
- 2. The Aloha #1 Well will be located on Federal Oil and Gas Lease Serial #NM 013365 insofar as said lease covers the following described lands:

Township 28 North, Range 11 West, NMPM
Section 16: SE/4 SE/4, W/2 SE/4, W/2 NE/4, W/2
(Fulcher Kutz Pictured Cliffs Pool)
Section 16: SE/4 SE/4, W/2 SE/4, W/2 NE/4, W/2
(Pinon Fruitland Pool)

3. The legal location of the well will be as follows:

Township 28 North, Range 11 West, NMPM
Section 16: Unit Letter L
San Juan County, New Mexico

- 4. The Aloha #1 Well has not presently been approved for dual completion in the Fulcher Kutz Pictured Cliffs Pool and the Pinon Fruitland Pool.
- 5. The Aloha #1 Well will be capable of only low marginal production from the Fulcher Kutz Pictured Cliffs Pool, and will be capable of only low marginal production from the Pinon Fruitland Pool.
  - 6. The ownership of the above mentioned Pools is common.
- 7. The proposed commingling from the above Pools will result in the recovery of additional hydrocarbons, the prevention of waste and the protection of correlative rights.

WHEREFORE, the Applicant requests this Application be set for hearing on January 14, 1981, and that after said hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the Aloha #1 Well in San Juan County, New Mexico.

Respectfully submitted,

Thomas A. Dugan Agent for Applicant P.O. Box 208

Farmington, N.M. 87401

## ALOHA #1 WELL

Application for Approval of Downhole Commingling Flag-Redfern Oil Co.

### OFFSET LEASES AND OPERATORS

1. USA NM 013365

Township 28 North, Range 11 West, NMPM
Section 16: NW/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701

2. USA NM 013365

Township 28 North, Range 11 West, NMPM Section 16: W/2 NE/4, W/2 SE/4, SE/4 SE/4 San Juan County, New Mexcio

OPERATOR: Dugan Production Corp. P.O. Box 208

Farmington, New Mexico 87401

3. USA NM 021116

Township 28 North, Range 11 West, NMPM
Section 16: E/2 NE/4, NE/4 SE/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701

4. USA NM 010063

Township 28 North, Range 11 West, NMPM
Section 17: E/2
Section 21: N/2
San Juan County, New Mexico

OPERATUR: George E. Willett
Box 548
Lemoore, California 93245

5. USA SF 080844

Township 28 North, Range 11 West, NMPM
Section 20: NE/4
San Juan County, New Mexico

OPERATOR: National Drilling Co. Address Unavailable

# OIL CONSERVATION DIVISION STATE OF NEW MEXICO

IN THE Matter of the Application of Flag-Redfern Oil Co. for Downhole Commingling of the Aloha #1 Well in San Juan County, New Mexico

Case 7/2/

### **APPLICATION**

Pursuant to Rule 303 C of the Rules and Regulations of the State of New Mexico Oil Conservation Division, The Applicant, Flag-Redfern Oil Co., by and through its agent, Thomas A. Dugan, hereby makes application for approval of downhole commingling in the well bore of the Aloha #1 Well in San Juan County, New Mexico.

The Applicant further states:

- 1. The Operator of the Aloha #1 Well will be the Applicant, Flag-Redfern Oil Co., whose address is P.O. Box 208, Farmington, New Mexico, 87401.
- 2. The Aloha #1 Well will be located on Federal Oil and Gas Lease Serial #NM 013365 insofar as said lease covers the following described lands:

Township 28 North, Range 11 West, NMPM
Section 16: SE/4 SE/4, W/2 SE/4, W/2 NE/4, W/2
(Fulcher Kutz Pictured Cliffs Pool)
Section 16: SE/4 SE/4, W/2 SE/4, W/2 NE/4, W/2
(Pinon Fruitland Pool)

3. The legal location of the well will be as follows:

Township 28 North, Range 11 West, NMPM Section 16: Unit Letter L San Juan County, New Mexico

- 4. The Aloha #1 Well has not presently been approved for dual completion in the Fulcher Kutz Pictured Cliffs Pool and the Pinon Fruitland Pool.
- 5. The Aloha #1 Well will be capable of only low marginal production from the Fulcher Kutz Pictured Cliffs Pool, and will be capable of only low marginal production from the Pinon Fruitland Pool.
  - 6. The ownership of the above mentioned Pools is common.
- 7. The proposed commingling from the above Pools will result in the recovery of additional hydrocarbons, the prevention of waste and the protection of correlative rights.

- WHEREFORE, the Applicant requests this Application be set for hearing on January 14, 1981, and that after said hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the Aloha #1 Well in San Juan County, New Mexico.

Respectfully submitted,

Thomas A. Dugan
Agent for Applicant
P.O. Box 208
Farmington, N.M. 87401

### ALOHA #1 WELL

Application for Approval of Downhole Commingling Flag-Redfern Oil Co.

### OFFSET LEASES AND OPERATORS

USA NM 013365

Township 28 North, Range 11 West, NMPM
Section 16: NW/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701

USA NM 013365

Township 28 North, Range 11 West, NMPM Section 16: W/2 NE/4, W/2 SE/4, SE/4 SE/4 San Juan County, New Mexcio

OPERATOR: Dugan Production Corp.

P.O. Box 208

Farmington, New Mexico 87401

3. USA NM 021116

Township 28 North, Range 11 West, NMPM Section 16: E/2 NE/4, NE/4 SE/4 San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701

4. USA NM 010063

Township 28 North, Range 11 West, NMPM
Section 17: E/2
Section 21: N/2 San Juan County, New Mexico

OPERATOR: George E. Willett Box 548 Lemoore, California 93245

5. USA SF 080844

Township 28 North, Range 11 West, NMPM Section 20: NE/4 San Juan County, New Mexico

OPERATOR: National Drilling Co. Address Unavailable

# OIL CONSERVATION DIVISION STATE OF NEW MEXICO

IN THE Matter of the Application of Flag-Redfern Oil Co. for Downhole Commingling of the Aloha #1 Well in San Juan County, New Mexico

Case 7/2/

### APPLICATION

Pursuant to Rule 303 C of the Rules and Regulations of the State of New Mexico Oil Conservation Division, The Applicant, Flag-Redfern Oil Co., by and through its agent, Thomas A. Dugan, hereby makes application for approval of downhole commingling in the well bore of the Aloha #1 Well in San Juan County, New Mexico.

The Applicant further states:

- 1. The Operator of the Aloha #1 Well will be the Applicant, Flag-Redfern Oil Co., whose address is P.O. Box 208, Farmington, New Mexico, 87401.
- 2. The Aloha #1 Well will be located on Federal Oil and Gas Lease Serial #NM 013365 insofar as said lease covers the following described lands:

Township 28 North, Range 11 West, NMPM
Section 16: SE/4 SE/4, W/2 SE/4, W/2 NE/4, W/2
(Fulcher Kutz Pictured Cliffs Pool)
Section 16: SE/4 SE/4, W/2 SE/4, W/2 NE/4, W/2
(Pinon Fruitland Pool)

3. The legal location of the well will be as follows:

Township 28 North, Range 11 West, NMPM
Section 16: Unit Letter L
San Juan County, New Mexico

- 4. The Aloha #1 Well has not presently been approved for dual completion in the Fulcher Kutz Pictured Cliffs Pool and the Pinon Fruitland Pool.
- 5. The Aloha #1 Well will be capable of only low marginal production from the Fulcher Kutz Pictured Cliffs Pool, and will be capable of only low marginal production from the Pinon Fruitland Pool.
  - 6. The ownership of the above mentioned Pools is common.
- 7. The proposed commingling from the above Pools will result in the recovery of additional hydrocarbons, the prevention of waste and the protection of correlative rights.

WHEREFORE, the Applicant requests this Application be set for hearing on January 14, 1981, and that after said hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the Aloha #1 Well in San Juan County, New Mexico.

Respectfully submitted,

Thomas A. Dugan
Agent for Applicant
P.O. Box 208
Farmington, N.M. 87401

## ALOHA #1 WELL

Application for Approval of Downhole Commingling Flag-Redfern Oil Co.

### OFFSET LEASES AND OPERATORS

1. USA NM 013365

Township 28 North, Range 11 West, NMPM
Section 16: NW/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701

2. USA NM 013365

Township 28 North, Range 11 West, NMPM Section 16: W/2 NE/4, W/2 SE/4, SE/4 SE/4 San Juan County, New Mexcio

OPERATOR: Dugan Production Corp. P.O. Box 208

Farmington, New Mexico 87401

USA NM 021116

Township 28 North, Range 11 West, NMPM
Section 16: E/2 NE/4, NE/4 SE/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co.

P.O. Drawer 2280 Midland, Texas 79701

USA NM 010063

Township 28 North, Range 11 West, NMPM Section 17: E/2 Section 17: E/2 Section 21: N/2 San Juan County, New Mexico

George E. Willett Box 548 OPERATOR:

Lemoore, California 93245

USA SF 080844

Township 28 North, Range 11 West, NMPM Section 20: NE/4 San Juan County, New Mexico

**OPERATOR:** National Drilling Co. Address Unavailable

### ALOHA #1 WELL

Application for Approval of Downhole Commingling Flag-Redfern Oil Co.

### OFFSET LEASES AND OPERATORS

1. USA NM 013365

Township 28 North, Range 11 West, NMPM
Section 16: NW/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701

2. USA NN 013365

Township 28 North, Range 11 West, NMPM
Section 16: W/2 NE/4, W/2 SE/4, SE/4 SE/4
San Juan County, New Mexcio

OPERATOR: Dugan Production Corp. P.O. Box 208

Farmington, New Mexico 87401

3. USA NM 021116

Township 28 North, Range 11 West, NMPM
Section 16: E/2 NE/4, NE/4 SE/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701

4. USA NM 010063

Township 28 North, Range 11 West, NMPM
Section 17: E/2
Section 21: N/2
San Juan County, New Mexico

OPERATOR: George E. Willett
Box 548
Lemoore, California 93245

5. USA SF 080844

Township 28 North, Range 11 West, NMPM
Section 20: NE/4
San Juan County, New Mexico

OPERATOR: National Drilling Co. Address Unavailable

# dugan production corp.

December 29, 1980

Joe D. Ramey Division Director New Mexico Oil Conservation Division P.O. Box 2088 Santa Fe, New Mexico 87501

Re: Application for Downhole Commingling
Aloha #2 Well (Fulcher Kutz Pictured Cliffs
Pool and Pinon Fruitland Pool)
San Juan County, NewsMexico

Dear Mr. Ramey:

Enclosed please find three copies of the above referenced Application.

I previously verbally requested this matter be placed on the January 14, 1981 Docket and was advised by the New Mexico Oil Conservation Division that this request would be honored. I was also advised that a written application must be filed with the NMOCD on or before January 3, 1981.

Please advise if you need further information.

Sincerely,

Tommy Roberts
Landman

TR:nw

**Enclosures** 

DEC 3 1 1980

Flogliffin

OIL CONSURVATION DIVISION SANTA FE

709 BLOOMFIELD RD. • P. O. BOX 208 • FARMINGTON, NEW MEXICO 87401 • PHONE: 505-325-1821

Joe Ramey December 29, 1980 Page Two

cc: George E. Willett Box 548 Lemoore, California 93245

( S. 1)

# OIL CONSERVATION DIVISION STATE OF NEW MEXICO

IN THE Matter of the Application of Flag-Redfern Oil Co. for Downhole Commingling of the Aloha #2 Well in San Juan County, New Mexico

Case 7/2/

## APPLICATION

Pursuant to Rule 303 C of the Rules and Regulations of the State of New Mexico Oil Conservation Division, The Applicant, Flag-Redfern Oil Co., by and through its agent, Thomas A. Dugan, hereby makes application for approval of downhole commingling in the well bore of the Aloha #2 Well in San Juan County, New Mexico.

The Applicant further states:

- 1. The Operator of the Aloha #2 Well will be the Applicant, Flag-Redfern Oil Co., whose address is P.O. Box 208, Farmington, New Mexico, 87401.
- 2. The Aloha #2 Well will be located on Federal Oil and Gas Lease Serial #NM 013365 insofar as said lease covers the following described lands:

Township 28 North, Range 11 West, NMPM
Section 16: SE/4 SE/4 W/2 SE/4, W/2 NE/4, W/2
(Fulcher Kutz Pictured Cliffs Pool)
Section 16: SE/4 SE/4, W/2 SE/4, W/2 NE/4, W/2
(Pinon Fruitland Pool)

3. The legal location of the well will be as follows:

Township 28 North, Range 11 West, NMPM
Section 16: Unit Letter D
San Juan County, New Mexico

- 4. The Aloha #2 Well has not presently been approved for dual completion in the Fulcher Kutz Pictured Cliffs Pool and the Pinon Fruitland Pool.
- 5. The Aloha #2 Well will be capable of only low marginal production from the Fulcher Kutz Pictured Cliffs Pool, and will be capable of only low marginal production from the Pinon Fruitland Pool.
  - 6. The ownership of the above mentioned Pools is common.
- 7. The proposed commingling from the above Pools will result in the recovery of additional hydrocarbons, the prevention of waste and the protection of correlative rights.

WHEREFORE, the Applicant requests this Application be set for hearing on January 14, 1981, and that after said hearing the New Mexico Uil Conservation Division grant this Application by giving approval to the downhole commingling of the Aloha #2 Well in San Juan County, New Mexico.

Respectfully submitted,

Thomas A. Dugan
Agent for Applicant
P.O. Box 208
Farmington, N.M. 87401

### ALOHA #2 WELL

Application for Approval of Downhole Commingling Flag-Redfern Oil Co.

### OFFSET LEASES AND OPERATORS

1. USA NM 020982

Township 28 North, Range 11 West, NMPM

Section 8: Lot 2

Section 9: Lots 1,3

San Juan County, New Mexico

OPERATOR: Flag-Redfern 0il Co. P.O. Box 2280 Midland, Texas 79701

2. USA NM 010063

Township 28 North, Range 11 West, NMPM
Section 9: Lots 2,4, SW/4 SE/4,
SW/4 SW/4, SE/4 SW/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern 0il Co. P.O. Box 2280 Midland, Texas 79701

3. USA NM 021116

Township 28 North, Range 11 West, NMPM
Section 9: SE/4 SE/4
Section 16: E/2 NE/4, NE/4 SE/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701

4. USA NM 013365

Township 28 North, Range 11 West, NMPM Section 16: W/2 NE/4, W/2 SE/4, SE/4 SE/4 San Juan County, New Mexico

OPERATOR: Dugan Production Corp.
P.O. Box 208
Farmington, New Mexico 87401

5. USA NM 013365

Township 28 North, Range 11 West, NMPM
Section 16: SW/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701

6. USA NM 010063

Township 28 North, Range 11 West, NMPM
Section 17: E/2
San Juan County, New Mexico

OPERATOR: George E. Willett
Box 548
Lemoore, California 93245

7. USA NM 010063

Township 28 North, Range 11 West, NMPM Section 8: Lot 1, SW/4 SE/4, SE/4 SE/4 San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701

### OIL CONSERVATION DIVISION

### STATE OF NEW MEXICO

IN THE Matter of the Application of Flag-Redfern Oil Co. for Downhole Commingling of the Aloha #2 Well in San Juan County, New Mexico

Case 7/21

### APPLICATION

Pursuant to Rule 303 C of the Rules and Regulations of the State of New Mexico Oil Conservation Division, The Applicant, Flag-Redfern Oil Co., by and through its agent, Thomas A. Dugan, hereby makes application for approval of downhole commingling in the well bore of the Aloha #2 Well in San Juan County, New Mexico.

The Applicant further states:

- 1. The Operator of the Aloha #2 Well will be the Applicant, Flag-Redfern Oil Co., whose address is P.O. Box 208, Farmington, New Mexico, 87401.
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Township 28 North, Range 11 West, NMPM
Section 16: SE/4 SE/4, W/2 SE/4, W/2 NE/4, W/2
(Fulcher Kutz Pictured Cliffs Pool)
Section 16: SE/4 SE/4, W/2 SE/4, W/2 NE/4, W/2
(Pinon Fruitland Pool)

3. The legal location of the well will be as follows:

Township 28 North, Range 11 West, NMPM
Section 16: Unit Letter D
San Juan County, New Mexico

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WHEREFORE, the Applicant requests this Application be set for hearing on January 14, 1981, and that after said hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the Aloha #2 Well in San Juan County, New Mexico.

Respectfully submitted,

Thomas A. Dugan Agent for Applicant P.O. Box 208

Farmington, N.M. 87401

### ALOHA #2 WELL

Application for Approval of Downhole Commingling Flag-Redfern Oil Co.

### OFFSET LEASES AND OPERATORS

1. USA NM 020982

Township 28 North, Range 11 West, NMPM
Section 8: Lot 2
Section 9: Lots 1,3
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Box 2280 Midland, Texas 79701

2. USA NM 010063

Township 28 North, Range 11 West, NMPM
Section 9: Lots 2,4, SW/4 SE/4,
SW/4 SW/4, SE/4 SW/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Box 2280 Midland, Texas 7970!

3. USA NM 021116

Township 28 North, Range 11 West, NMPM
Section 9: SE/4 SE/4
Section 16: E/2 NE/4, NE/4 SE/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701

4. USA NM 013365

Township 28 North, Range 11 West, NMPM Section 16: W/2 NE/4, W/2 SE/4, SE/4 SE/4 San Juan County, New Mexico

OPERATOR: Dugan Production Corp.
P.O. Box 208
Farmington, New Mexico 87401

5. USA NM 013365

Township 28 North, Range 11 West, NMPM
Section 16: SW/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701

6. USA NM 010063

Township 28 North, Range 11 West, NMPM
Section 17: E/2
San Juan County, New Mexico

OPERATOR: George E. Willett
Box 548
Lemoore, California 93245

7. USA NM 010063

Township 28 North, Range 11 West, NMPM Section 8: Lot 1, SW/4 SE/4, SE/4 SE/4 San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701

# OIL CONSERVATION DIVISION STATE OF NEW MEXICO

IN THE Matter of the Application of Flag-Redfern Oil Co. for Downhole Commingling of the Aloha #2 Well in San Juan County, New Mexico

Case 7/21

### **APPLICATION**

Pursuant to Rule 303 C of the Rules and Regulations of the State of New Mexico Oil Conservation Division, The Applicant, Flag-Redfern Oil Co., by and through its agent, Thomas A. Dugan, hereby makes application for approval of downhole commingling in the well bore of the Aloha #2 Well in San Juan County, New Mexico.

The Applicant further states:

- 1. The Operator of the Aloha #2 Well will be the Applicant, Flag-Redfern Oil Co., whose address is P.O. Box 208, Farmington, New Mexico, 87401.
- 2. The Aloha #2 Well will be located on Federal Oil and Gas Lease Serial #NM 013365 insofar as said lease covers the following described lands:

Township 28 North, Range 11 West, NMPM
Section 16: SE/4 SE/4, W/2 SE/4, W/2 NE/4, W/2
(Fulcher Kutz Pictured Cliffs Pool)
Section 16: SE/4 SE/4, W/2 SE/4, W/2 NE/4, W/2
(Pinon Fruitland Pool)

3. The legal location of the well will be as follows:

Township 28 North, Range 11 West, NMPM
Section 16: Unit Letter D
San Juan County, New Mexico

- 4. The Aloha #2 Well has not presently been approved for dual completion in the Fulcher Kutz Pictured Cliffs Pool and the Pinon Fruitland Pool.
- 5. The Aloha #2 Well will be capable of only low marginal production from the Fulcher Kutz Pictured Cliffs Pool, and will be capable of only low marginal production from the Pinon Fruitland Pool.
  - 6. The ownership of the above mentioned Pools is common.
- 7. The proposed commingling from the above Pools will result in the recovery of additional hydrocarbons, the prevention of waste and the protection of correlative rights.

WHEREFORE, the Applicant requests this Application be set for hearing on January 14, 1981, and that after said hearing the New Mexico Oil Conservation Division grant this Application by giving approval to the downhole commingling of the Aloha #2 Well in San Juan County, New Mexico.

Respectfully submitted,

Thomas A. Dugan
Agent for Applicant
P.O. Box 208
Farmington, N.M. 87401

### ALOHA #2 WELL

Application for Approval of Downhole Commingling Flag-Redfern Oil Co.

### OFFSET LEASES AND OPERATORS

1. USA NM 020982

Township 28 North, Range 11 West, NMPM
Section 8: Lot 2
Section 9: Lots 1,3
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Box 2280 Midland, Texas 79701

2. USA NM 010063

Township 28 North, Range 11 West, NMPM
Section 9: Lots 2,4, SW/4 SE/4,
SW/4 SW/4, SE/4 SW/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Box 2280 Midland, Texas 79701

3. USA NM 021116

Township 28 North, Range 11 West, NMPM
Section 9: SE/4 SE/4
Section 16: E/2 NE/4, NE/4 SE/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701

4. USA NM 013365

Township 28 North, Range 11 West, NMPM Section 16: W/2 NE/4, W/2 SE/4, SE/4 SE/4 San Juan County, New Mexico

OPERATOR: Dugan Production Corp.
P.O. Box 208
Farmington, New Mexico 87401

5. USA NM 013365

Township 28 North, Range 11 West, NMPM
Section 16: SW/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701

6. USA NM 010063

Township 28 North, Range 11 West, NMPM Section 17: E/2 San Juan County, New Mexico

OPERATÓR: George E. Willett
Box 548
Lemoore, California 93245

7. USA NM 010063

Township 28 North, Range 11 West, NMPM
Section 8: Lot 1, SW/4 SE/4, SE/4 SE/4
San Juan County, New Mexico

OPERATOR: Flag-Redfern Oil Co. P.O. Drawer 2280 Midland, Texas 79701 Called in by Tommie Roberts
12/16/80
Flag-Redfern Oil Company
San Juan County
Workhole Commingling
Pinon-Fruitland and
Fulcher Kutz-Pictured Cliffs
Aloha # 1-2
16-28N-11W

Called in by Tommie Roberts

12/16/80

Flag-Redfern Oil Co.

Wownhole Commingling
San Juan County ()

Pinon-Fruitland and
Fulcher Kuty-Pictured Cliffs

aloha # 2-D

16-28N-11W.

## STATE OF NEW MEXICO ENERGY AND MINERALS DEPARTMENT OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 7121
Order No. <u>R-6572</u>
APPLICATION OF FLAG-REDFERN OIL CO.
FOR DOWNHOLE COMMINGLING, SAN JUAN
COUNTY, NEW MEXICO.
ORDER OF THE DIVISION
BY THE DIVISION:
This cause came on for hearing at 9 a.m. on January 14
1981, at Santa Fe, New Mexico, before Examiner Richard
L. Stamets
NOW, on this day of January , 1981 , the
Division Director, having considered the testimony, the record
and the recommendations of the Examiner, and being fully
advised in the premises,
FINDS:
(1) That due public notice having been given as required
by law, the Division has jurisdiction of this cause and the
subject matter thereof.
(2) That the applicant, Flag-Redfern Oil Co., is
the owner and operator of the Aloha Wells Nos. 1 and 2
located in Units and of Section, Township 28 North
Range 11 West , NMPM, San Juan County, New Mexico.
(3) That the applicant seeks authority to commingle
Cliffs and Fulcher Kutz-Pictured/ production
within the wellbore of the above-described well?

(4)	) That	from	the	Pi	non-l	Fruitlan	d ·		zone,	the
subject	well is	u s capa	able	of	low	raver of margina	l pr	oduction	only.	

- (5) That from the <u>Fulcher Kutz-Pictured Cliffs</u> zone, the subject wells is capable of low marginal production only.
- (6) That the proposed commingling may result in the recovery of additional hydrocarbons from each of the subject pools, thereby preventing waste, and will not violate correlative rights.
- (7) That the reservoir characteristics of each of the subject zones are such that underground waste would not be caused by the proposed commingling provided that the well is not shut-in for an extended period.
- (8) That to afford the Division the opportunity to assess the potential for waste and to expeditiously order appropriate remedial action, the operator should notify the Aztec district office of the Division any time the subject well is shut-in for 7 consecutive days.

(9) That in order to allocate the commingled production
soid Aloha Wells No land 2, 90 percent and 50
to each of the commingled zones in the subject well,
respectively,
percent, of the commingled production, should be
allocated to the Pinon-Fruitland zone, and percentand.
hespectively,
percent of the commingled production to the
Fulcher Kutz-Pictured Cliffs
zone.
(10) (2) That in order to allocate the commingled production to each of the commingled zones in the wells, applicant should
consult with the supervisor of the Aztec district office of the Division and determine allocation formula for each of
the production zones. in said 17/0 ha Well No.1
should production trends warrant

## IT IS THEREFORE ORDERED:

II and the second secon
(1) That the applicant, Flag-Redfern Oil Co. , is
hereby authorized to commingle Pinon-Fruitland and
Fulcher Kutz-Pictured Cliffs production within the wellbore of respective
the Aloha Wells Nos. 1 and 2 , located in Units L and D, of
Section 16 , Township 28 North , Range 11 West
NMPM, San Juan County, New Mexico.
(3) That the applicant shall consult with the Supervisor
of the Aztec district office of the Division and
determine an allocation formula for the allocation of production
should production trends warrant the sume.
QUTORQUEO
(2) That 90 percent and 50 percent, of the dommingled
production shall be allocated to the Pinon-Fruitland
zone and Upirent and 50 percent of the commingled
production shall be allocated to the Fulcher Kutz-Pictured Cliffs
zone in said Albha Wills Nos. I and 2.
(3)
That the operator of the subject well shall immediately
notify the Division's Aztec district office any time the
well has been shut-in for 7 consecutive days and shall concurrent
present, to the Division, a plan for remedial action.
(5) That jurisdiction of this cause is retained for the
entry of such further orders as the Division may deem necessary.
DONE at Santa Fe, New Mexico, on the day and year hereinabov
designated.