BEFORE THE OIL CONSERVATION COMMISSION

STATE OF NEW MEXICO

RECEIVED
JAN 21 1983
OIL CONSERVATION DIVISION
SANTA FE

APPLICATION OF CHACE OIL COMPANY, INC.
FOR DOWNHOLE COMMINGLING

The applicant, Chace Oil Company, Inc. is the owner and operator of the Chace Oil Company, Inc. Jicarilla Apache 54, Well No. 11.

The 54-11 well was completed in the Chacon Dakota Associated field and in an Undesignated Gallup group August 9, 1982.

Applicant requests authority for downhole commingling in the subject well of the Chacon Dakota Associated pool with the Undesignated Gallup pool.

The application is presented in the order that the requirements are set forth in the Oil Conservation Division's Rules and Regulations, dated March 1, 1982.

Rule: 303-C

Section 1:

(a) For wells involving oil zones:

1. Bottom perforation — Bbl/day limit

   Chacon Dakota Associated - 6870 — 40

   Undesignated Gallup - 6682 — 40

   Neither zone is expected to exceed the Bbl/day limit.

2. Each of the zones requires artificial lift. Neither is capable of flowing.

3. "Neither zone produces more water than the combined oil limit, as determined in Paragraph (1) above".

4. The fluids from both zones are compatible with the fluids from the other zones, and will not react with each other to cause damage in either of the reservoirs.

5. The total value of the crude will not be reduced by commingling.

6. Ownership of each zone is common.

7. The commingling will not jeopardize the efficiency of any future secondary recovery operations.

Section 2, Paragraphs A-J, 'For approval of downhole commingling':

(a) Chace Oil Company, Inc.
313 Washington, SE
Albuquerque, NM 87108

(b) The applicant is the owner and operator of the Chace Oil Company, Inc. Jicarilla Apache 54, Well No. 11.

Location: Unit 'K' - 1850' FSL & 1850' FWL
Section 3, Township 22North, Range 3 West
Sandoval County, New Mexico

Pools to be commingled:

Chacon Dakota Associated

Undesignated Gallup

(c) Plat indicating location of 54-11 well and offsetting location ownership. Attached p. 4.

(d) Gas Oil ratio form C-116, dated January 14, 1983. Attached p. 5.

(e) Production decline curve.
Attached p. 6.

Completion Report

(f) Estimated bottom hole pressure for each artificially lifted zone to be commingled, (PSIA):

Undesignated Gallup	2309
Chacon Dakota Associated	2398

(g) Fluid characteristics:

All zones produce oil of 40°-45° gravity with little or no water.

(h) Individual production of each zone would not increase or decrease the value of the production. The price per barrel of oil is the same for each producing horizon.

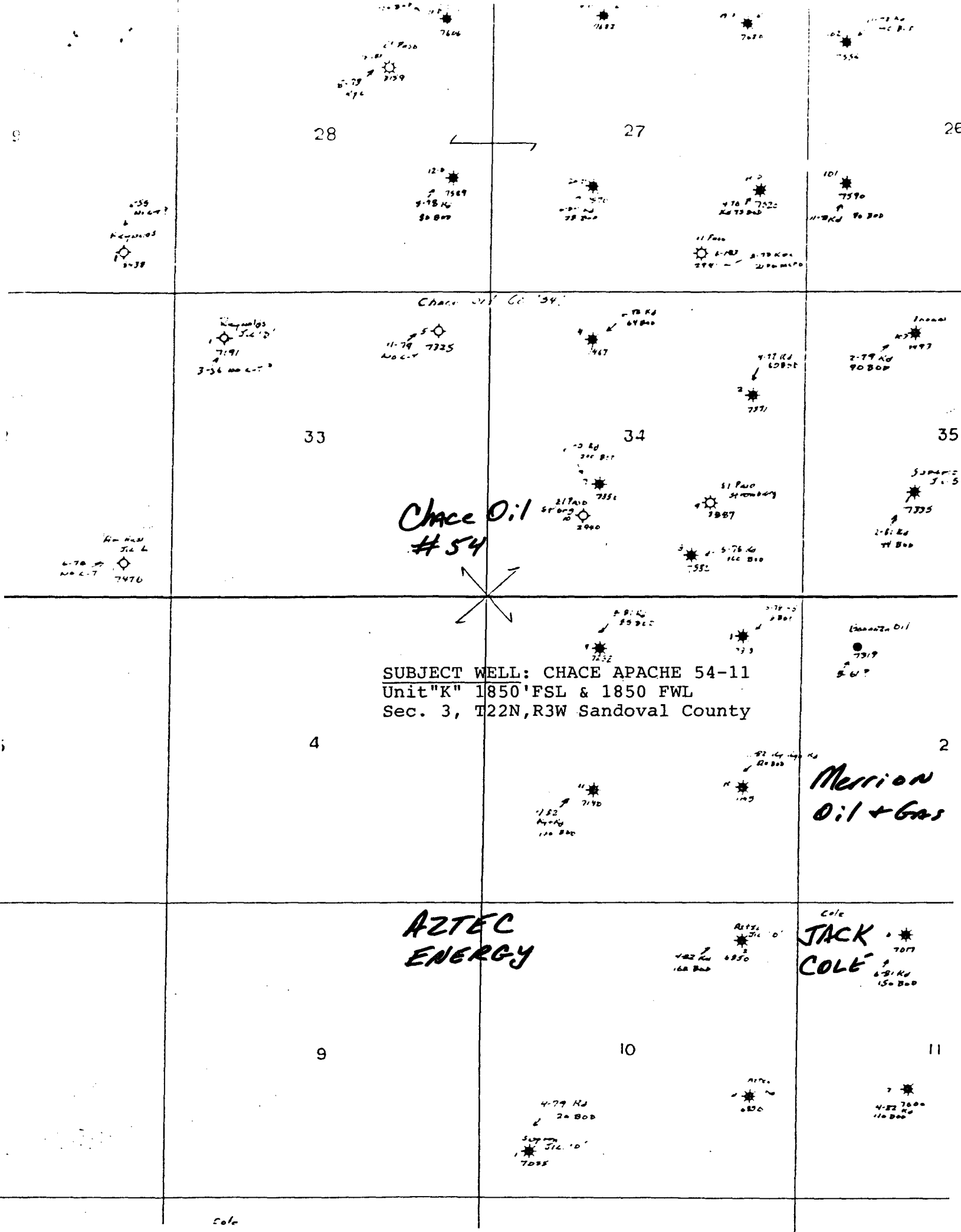
(i) Allocation of Production:

Estimated oil and gas:

	Oil	Gas
Dakota	60%	45%
Gallup	40%	55%

(j) Notification of proposed commingling:

Minerals Management Service and all offset owners have been notified by attached letters. Waivers from offset operators are either attached or will be forthcoming as a supplement to this application.


28
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Chace Oil #54
SUBJECT WELL: CHACE APACHE 54-11
Unit"K" 1850'FSL & 1850 FWL
Sec. 3, T22N,R3W Sandoval County
Merrion Oil + Gas
AZTEC ENERGY
JACK COLE

NEW MEXICO OIL CONSERVATION COMMISSION
GAS - OIL RATIO TESTS

C-116
Revised 1-1-65

Operator: Chace Oil Company, Inc.
Pool: Chacon Associated
County: Sandoval
Address: 313 Washington, SE, Albuquerque, NM 87108
TYPE OF TEST - (X): Scheduled ☐ Completion ☐ Special XX

LEASE NAME	WELL NO.	LOCATION U	S	T	R	DATE OF TEST	STATUS	CHOKE SIZE	TBG. PRESS.	DAILY ALLOWABLE	LENGTH OF TEST HOURS	PROD. DURING TEST WATER BBLS.	GRAV. OIL	OIL BBLS.	GAS M.C.F.	GAS - OIL RATIO CU.FT/BBL.
Jicarilla (Chace Apache) 54	11	K	3	22N	3W	1-14-83	P	2"	115	58	24	2	44	22	13	590

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

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

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

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

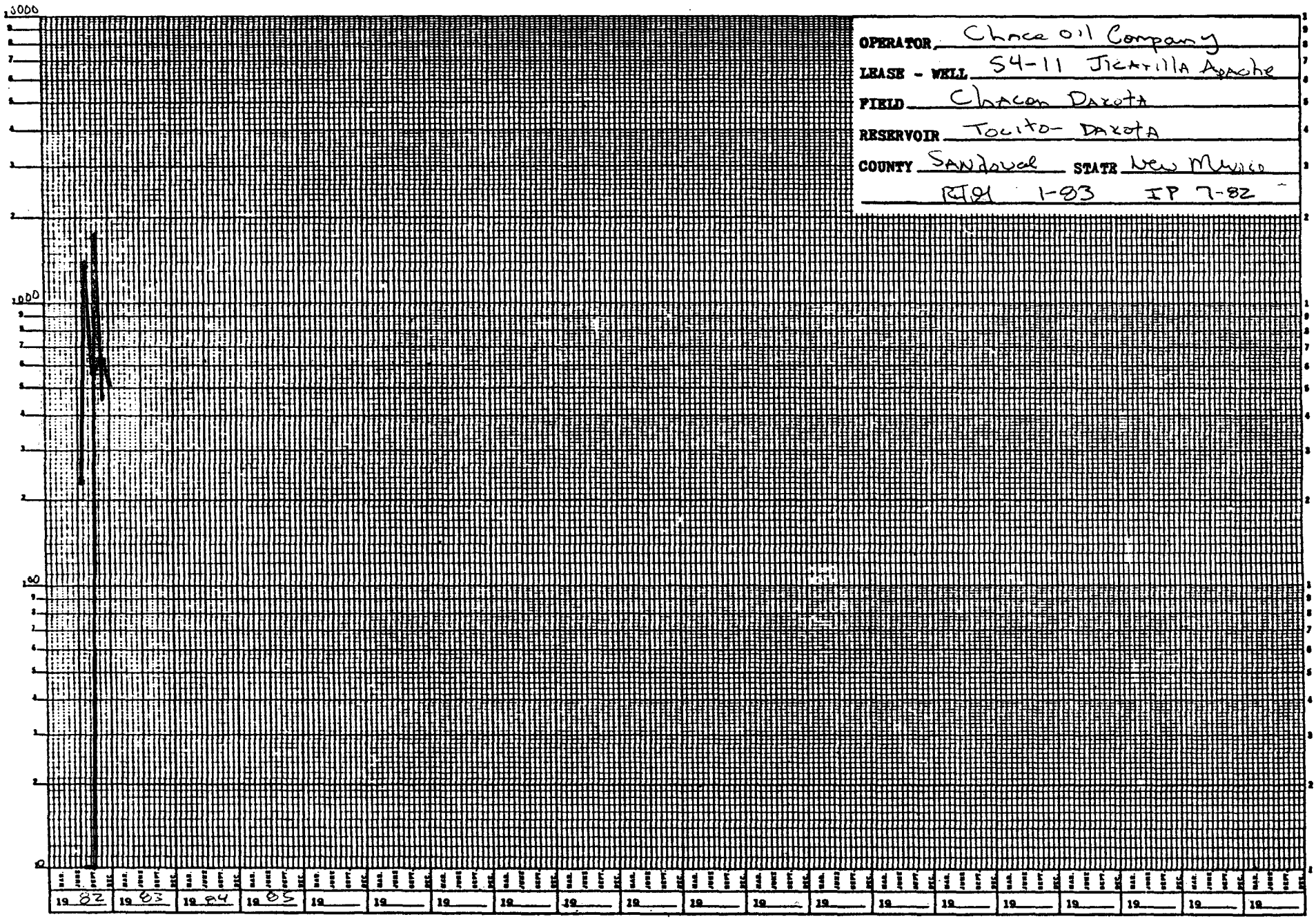
Mail original and one copy of this report to the district office of the New Mexico Oil Conservation Commission in accordance with Rule 301 and appropriate pool rules.

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

B. W. Mills
(Signature)

President
(Title)

1-14-83



BBLS oil & MCF gas

CHACE OIL COMPANY, INC.
313 Washington S.E.
Albuquerque, New Mexico 87108
(505) 266-5562

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OIL CONSERVATION DIVISION
SANTA FE

WELL HISTORY

NAME OF WELL: Jicarilla Apache #54-11

LOCATION: Unit "K" 1850 FSL and 1850 FWL
Section 3, T22N-R3W, Sandoval County, NM

ELEVATION: 7216 ' GR

PROPOSED DEPTH: 7140' (Dakota Test)

ESTIMATED FORMATION TOPS:

Ojo	2260'
Pictured Cliffs	2570'
Chacra	2935'
Cliff House	4105'
Point Lookout	4480'
Gallup	5750'
Greenhorn	6740'
Dakota "A"	6815'
Dakota "D"	6990'

3/30/82 Application submitted.

6/11/82 Spudded at 10:00 P. M. Drilled 9 3/4" hole to 227'. Ran 4 joints J-55 8 5/8" 23# csg. to 219' KB, and cemented with 200 sxs Class B cement, with 3% cc and 1/4# flowseal per sack. Circulated 5 sacks cement to surface. Plug down at 2:30 A. M. June 12, 1982. WOC.

6/12/82 Day #1. Operation: WOC. Depth: 227'. Rotary 90 rpm. 15,000 weight on bit. Drilling rate 50' per hour. Liner size 5 1/2 x 15. 700# pressure. 56 strokes per minute. Spud mud. Deviation record: 1/2 degree at 227'. Bit #1 - 12 1/4 - OSC-3 227', 3 1/4 hours.
9 3/4 hours - Rig down. Move. Rig up.
3/4 hours - Drill rat and mouse-hole.
3 3/4 hours - Drill surface
1/2 hour - Survey. Trip out of hole.
1 hour - Run 8 5/8" casing
1/2 hour - cement with 200 sxs Class B, 3% calcium chloride, 1/4 # Flowseal per sack.
Plug down at 2:30 A. M., June 12, 1982.
3 1/2 hours - WOC
13 loads water

6/13/82 Day #2. Operation: trip for bit. Depth: 1669'. 24 hour progress 1442'. Sand and shale. Rotary 65 rpm. 35,000 weight on bit. Drilling rate 75' per hour. Liner size 5 1/2 x 15. 1,000# pressure. 60 strokes per minute. Mud vis is 34. Wt. is 8.6. W. L. is 6.0. Deviation record: 1/2 degree at 622' - 1/2 degree at 1112' - 1/2 degree at 1669'. Bit #2 - 7 7/8", F-2. 1442', 13 hours.
8 1/2 hours - WOC and nipple up. Pressure test BOP. 600#, 30 minute. Held okay.
1/2 hour - Drill plug and cement. Tagged cement at 195'.
1/4 hour - Survey
13 hours - Drill
1 1/4 hours - Survey and trip for bit.
10 loads water.

6/14/82 Day #3. Operation: drilling. Depth: 3023'. 24 hour progress 1354'. Sand and shale. Rotary 65 rpm. 35,000 weight on bit. Drilling rate 55' per hour. Liner size 5 1/2 x 15. 1,000# pressure. 54 strokes per minute. Mud vis is 36. Wt. is 8.8. W. L. is 8.0. 2% oil. Deviation survey: 1/2 degree at 2128' - 1/2 degree at 2652'. Bit #3. 7 7/8", F-2. 1354', 22 1/4 hours.
1 hour - finish trip for bit.
1/4 hour - RS
1/2 hour - survey
22 1/4 hours - Drill
12 loads of water

6/15/82 Day #4. Operation: drilling. Depth: 3919'. 24 hour footage 896'. Rotary 65 rpm. 35,000 weight on bit. Drilling rate 28' per hour. Liner size 5 1/2 x 15. 1,000# pressure. 53 strokes per minute. 3/4 degree at 3208'. 3/4 degree at 3701'. Bit #3. 7 7/8" - F-2 - 2250', 45 1/4 hours.
1/4 hour - RS BOP
3/4 hour - Survey
23 hours - Drilling
10 loads of water.

6/16/82 Day #5. Operation: drilling. Depth: 4589'. 24 hour footage 670'. Sand and shale. Rotary rpm 65. 35,000 weight on bit. Drilling rate 23' per hour. Liner size 5 1/2 x 15. 1,000# pressure. 52 strokes per minute. Mud vis is 40. Wt. is 9.0. W. L. is 9.0. Mud Additives: 40 barrels oil, 29 gel, 6 starch, 3 thinner, 1 1/2 soda ash, 4 fiber. Deviation record - 1/2 degree at 4289'. Bit #3 - 7 7/8", F2 - 2920', 68 1/2 hours.
1/4 hour - RS BOP
1/2 hour - Survey
23 1/4 hours - Drilling
11 loads water

6/17/82 Day #6. Operation: drilling. Depth: 4841'. 24 hour footage 252'. Sand and shale. Rotary rpm 65. Weight on bit 35,000. Drilling rate 28' per hour. Liner size 5 1/2 x 15. Pressure 1,100#. 52 strokes per minute. Mud vis is 45. Wt. is 9.1. W. L. is 6.4. Mud additives: 22 gel, 6 starch, 1 soda ash, 2 thinner, 1 caustic, 1 preservative, 5 benx, 2 fiber, 20 barrels oil.

Deviation record: 1/4 degree at 4724'. Bit #3 - 7 7/8", F2, 3055', 74 3/4 hours. Bit #4 - 7 7/8", F2, 117', 4 1/4 hours.
1/4 hour - RS BOP
1/4 hour - Survey
13 hours - Trip for bit. Bridge stopped at 1267' and 1477'. Wash bridges, and finish trip 40' to bottom
10 1/2 hours - Drilling
6 loads water.

6/18/82 Day #7. Operation: Drilling. Depth : 5406'. 24 hour footage 565'. Sand and shale. Rotary rpm 65. 35,000 weight on bit. Present drilling rate 20' per hour. Liner size 5 1/2 x 15. Pressure 1,000#. 52 strokes per minute. Mud vis is 45. Wt. is 9.1. W. L. is 6.8. Deviation record: 1/4 degree at 5272'. Bit #4. Size 7 7/8", F2. 682', 27 1/2 hours.
1/4 hour - RS BOP
1/2 hour - Survey
23 1/4 hours - Drilling
5 loads water.

6/19/82 Day #8. Operation: drilling. Depth: 5867'. 24 hour footage is 461'. Sand and shale. Rotary RPM 65 - Weight on bit is 35,000. Drilling rate is 20' per hour. Pump - liner size 5 1/2 x 15. Pressure is 1,000#. 52 strokes per minute. Mud vis is 45. Wt. is 9.2. W. L. is 6.0. Deviation record: 1/2 degree at 5763'. Bit #4: 7 7/8", F2. 1143', 50 3/4 hours.
23 1/4 hours - Drilling
1/4 hour - RS BOP
1/2 hour - Survey
7 loads of water.

6/20/82 Day #9. Operation: drilling. Depth: 6295'. 24 hour footage is 428'. Sand and shale. Rotary RPM 65. 35,000 weight on bit. 18' per hour drilling rate. Liner size 5 1/2 x 12. Pressure 1,000#. 50 strokes per minute. Mud vis is 44. Wt. is 9.3. W. L. is 6.0. Deviation record: 3/4 degree at 6256'. Run #4: 7 7/8", F2. 1571', 74 hours.
23 1/4 hours - Drilling
1/4 hour - RS BOP
1/2 hour - Survey
4 loads of water.

6/21/82 Day #10. Operation: drilling. Depth: 6770'. 24 hour footage 475'. Formation: Graneros. Rotary RPM 60. Weight on bit is 35,000. Present drilling rate: 15' per hour. Liner size: 5 1/2 x 15. Pressure: 1000#. 50 strokes per minute. Mud vis is 42. Wt. is 9.3. W. L. is 7.0. Deviation record: none. Bit #4, 7 7/8", F2. 2046', 97 3/4 hours.
23 3/4 hours - Drilling
1/4 hour - RS BOP
5 loads of water.

6/22/82 Day #11. Operation: work on C-250 pump. Depth: 6848'. 24 hour footage: 78'. Dakota formation. Rotary RPM 55. 35,000 weight on bit. Drilling rate 10' per hour. Liner size: 5 1/2 x 15. 1,000# pressure. 56 strokes per minute. Mud vis is 54. Wt. 9.5. W. L. 6.6. Deviation record: 1/2 degree at 6798'. Bit #4: 7 7/8", F2. 2073', 99 3/4 hours.
Bit #5: 7 7/8", F4. 51', 5 1/2 hours.
7 1/2 hours: Drilling
13 1/2 hours: 2 Trips, and survey
3 hours: Work on pump
5 loads water.

6/23/82 Day #12. Operation: Drilling. Depth: 7093'. 24 hour footage 245'. Dakota Formation. 55 Rotary RPM. 35,000 weight on bit. Present drilling rate: 17' per hour. Liner - 5 1/2 x 15. 1,000# pressure. 50 strokes per minute. Mud vis is 60. Wt. is 9.6. W. L. is 7.0. No deviation record. Bit #5: 7 7/8", F4. 296', 28 hours.
1 1/4 hours - Work on C-250 pump.
1/4 hours - RS BOP
22 1/2 hours - Drilling
4 loads of water.

6/24/82 Day #13. Operation: Trip in hole to lay down drill pipe and drill collars. Depth: 7140' TD. 24 hour footage 47'. Dakota Formation. Mud vis is 120. Bit #5: 7 7/8", F4. 343', 30 3/4 hours.
2 3/4 hours - Drilling
2 1/2 hours - Circulate
3/4 hour - Survey trip
2 1/2 hours - Rig up and log. Log stopped at 1309'.
9 hours - Trips for logs
5 hours - Rig up and log with Schlumberger
1 1/2 hours - Trip in hole to lay down drill pipe and collars.

6/25/82 Day #14. Operation: Rig down and moving. Depth: 7141'TD. Mud additives: 10 bar.
1/2 hour - Go in hole
1 hour - Circulate
4 1/2 hours - Lay down drill pipe and drill collar
3 3/4 hours - Rig up casers, and run 4½" casing. 1 hr - cir. csg
1 hour - Cement 1st stage. Plug down 5:45 P. M. on 6/24/82.
3 hours - Open D. V. Tool and circulate
3/4 hour - Cement second stage
2 1/2 hours - Pick up BOP. Set slips and cut off.
6 hours - Rig down to move.
Rig released 12:00 P. M. on 6-24-82.

should be 7140

Ran ~~164~~ Joints of 4½" 11.6# casing. Set at 7141' KB. Shoe set at ~~4342'~~. Float collar at 7097'. D. V. Tool @ 2755'. Cement baskets at 6702', 6464', 2314', and 2138'. 1st stage: Cemented with 500 sxs of 50/50 posmix, 2% gel, 6# salt per sack. Plugged down at 5:15 P. M. on June 24, 1982. Second stage: Opened D. V. Tool and circulated for 3 hours. Cemented with 450 sxs 65/35 posmix, 12% gel and 6 1/4# Gilsonite per sack.

Followed by 50 sxs of Class B. Cement neat. Plugged down at 9:40 P. M. on 6-24-82. Circulated 11 barrels of cement to surface.

7/12/82: Moved Flint in to complete well. Rigged up. Ran tubing in to 2700'. Drilled out D. V. Tool at 7:30 P. M. Reamed. Went in to 7082'. Tested casing to 4000 psig. Prepared to displace hole with Kcl water. 10:30 P. M. started displacing hole. Completed at 11:00 P. M.

7/13/82: Spotted 250 gals. 7½% Hcl. COOH with tbg. @ 1:30 A. M. Started running correlation log. Out of hole with log @ 4:00 A. M. GBIHW cement bond log. Instrument hanging on DV Tool remnant. WBIH with mill, and smoothed up @ 5:30 A. M. Out of hole with log tool 6:00 A. M. Ran in the hole with new bit. Clean out D. V. Tool. POOH. Ran junk basket. Perforated Dakota "D" as follows: 6953, 6959, 6961, 6967, 6969; 4 SPF. Rig up Nowsco to break down. Dakota "D" zone broke down @ 1600# with 13 BPM. ISIP 1500#. Max. rate 27 BPM. Dropped 40 balls. Bled down. WIHW junk basket. Picked up balls. Went in hole. Set packer @ 6925'. Rig up to swab 12:40 P. M. Gas show on 3rd swab. No increase after 6 swabs. Set plug @ 6900'. Came out hole with tubing and packer. Went back in hole. Set bridge plug @ 6929. PBTD. (measured from KB). Tested csg. to 4000#. Went in hole with Bluejet perf. gun. Perf. Dakota "B" zone as follows: 6858, 6860, 6862, 6864, 6866, and 6870 @ 4 SPF. Came out of hole with perf. tool. Bullheaded 250 gal. 7½% Hcl with 40 balls. Broke down formation @ 2900#; 2 bbl/min injection rate. Second break @ 3500#. Balled off @ 3800#. Bled off, then shut in. Pressure built up to 1500#. Going in with junk basket through lubricator. Basket stopped on DV Tool. Came out hole with basket. Back in hole with 3 7/8" mill to remove burr on DV tool. Come out of hole with mill. Go back in hole with junk basket. Retrieved balls, and COHWJB. Frac'd with 33,500# 20-40 sd. 955 bbls. slick water. Max. press. 3800#. Average pressure 3000#. ISIP 2200#; after 15 min. 1740#. Max. rate 27 BPM. Min. rate 17 BPM. Set bridge plug at 6820'.

7-14-82: Tested csg. to 4000#, 1:30 A. M. Perfed Dakota "A" formation as follows: 6759, 6761, 6765, 6769, 6771, 6773, 6775, 6779 @ 4 SPF. Tried to break down. Sanded off. No flow. WIHWT. Washed out sand. Broke formation down. Dropped 50 balls. Formation broke at 3700#. Rate 8-9 bbls. per min. Balled off. Prepared to re-perforate @ 6759, 6761, 6765, 6769, 6771, 6773, 6775, 6779. (32 holes). GIHWJB. COHWJB. Recovered 24 balls, 6 hit. Attempted to break down formation. Did not get solid ball off; dropped 60 balls. GIHWJB. COHWJB. Recovered 75 balls; 13 hits. Prepare to pump in sand formation. Pressure 1490# at surface. BHP 5395# while treating. Pumped in 330 bbls. pad @ 3500# and 21.5 bbls./min. Pumped in ½ lb. sd with 5000 gal (119 bbls) followed with 110 bbls. water. Pumped in 3/4 lb sd with 213 bbls. Pressure about 3200#. Pumped in 1 lb. sd with 146 lbs. water. Pressure average 3180#. Pumped in 3/4 lb sd with 330 bbls. Press. built up to 3490#. Flushed with 126 bbl. water. Press. 3700. Pumped in 29,778 lbs. sd. Total fluid 1378 bbls. less 33 bbls. sd. GOIHW Bridge plug. Set at 6520. Pressure test plug to 4000#. Ok. GOIHW tubing. Spot 2 bbl. acid. COHWT. GOIH. Perforate Tocito zone @ 6372, 6374, 6434, 6438, 6442, 6444, 6476, 6478, 6480, 6482 and 6484 @ 4 SPF. Released Bluejet.

7-15-82: GOIHW packer on tubing. Set up N_2 Operation.

Displace tubing with N_2 19,200 scf. Set Packer @ 6170. Pump in 5 bbls. acid, and 3600 scf N_2. Dropped 35 balls. 15 bbl spacer. Dropped 40 balls. Ball off press 4200#. Surge balls out and test. Swabbed hole out. Small flow of gas. Swabbed down. No fluid. Prepared to frac Tocito. No pressure on csg. Started pumping in @ 26.5 bbls/min. Pressure reached 3000#, then dropped back to 2800# @ 22.5 bbls/min. Pumped in 333 bbls pad @ 22.6 bbls/min - 2930# pressure. Pumped in ½ lb sd with 194 bbls @ 22.5 bbls/min. 2970#. 3/4 lb sd with 207 bbls. @ 22.5 bbls/min. 3300#. Start flush. 101 bbls. Total bbls. fluid 836 bbls. Total sd. 10,500 lbs. ISIP; 2500#. 15 min. SI 2150# @ 4:00 P. M. @ 7:45 P. M. 1700# press. Bled off. GIHWT, to start swabbing. Ran 6953' of tubing-flanged up well head for swabbing.

7-16-82: Swabbed well 12 hours. Recovered 200 bbls. fluid. About 120 bbls. oil, and 80 bbls. water. Gas improving. SIWOSU.

7-17-82 to 8-1-82: Flowing intermittently into frac tank.

8-2-82: Silver Star Swabbing Unit started swabbing well. Fluid leval at surface. Swabbing oil and water. Csg. pressure 800 psig. Well flows by heads.

8-3-82: Same as above. Well flowing longer, but csg. pressure dropping to 200 psig.

8-4-82: Swabbing. Frac water coming back. Swabbed about 180 bbls. fluid. Mostly water, very little gas. Csg. 400 psig.

8-5-82: Swabbing. Water diminishing. Oil and gas improving. Csg. pressure 800. Dismissed swabbing rig.

8-6-82: Started hooking up location. 1-400 bbl. tank, and Olman Heath 250# 3 phase separator. Waiting on pump jack.

8-7-82: Working on location. Installed pump jack. Remco 160. 8 strokes per min. 72" stroke.

8-8-82: Pumping 60 bbls per 12 hours of oil. 20 bbls. water. Gas increasing. Pump sanded off. Ran endless tubing to clear out sand.

8-9-82: Pumping.

CHACE OIL COMPANY, INC.
313 Washington S.E.
Albuquerque, New Mexico 87108
(505) 266-5562

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JAN 21 1983
OIL CONSERVATION DIVISION
SANTA FE

January 10, 1982

Aztec Energy Corporation
P. O. Box 2637
Farmington, NM 87401

Attention: Mr. Ron Allen

Gentlemen:

This is to notify Aztec Energy Corporation, as offset operator to the Chace Oil Company wells Chace Apache 54-10 and 54-11, in units 'I' and 'K' respectively, of Section 3, T22N, R3W, that Chace Oil Company has applied under Oil Conservation Rule 303-C for authority to commingle the Gallup Associated pool with the Dakota Associated pool in said wells.

Yours truly,

Ross Easterling
Landman

RE/ss

CHACE OIL COMPANY, INC.
313 Washington S.E.
Albuquerque, New Mexico 87108
(505) 266-5562

RECEIVED
JAN 21 1983
OIL CONSERVATION DIVISION
SANTA FE

January 10, 1983

Mr. John S. Keller
U. S. Dept of the Interior
Bureau of Land Management
P. O. Drawer 600
Farmington, NM 87401

Re: Commingling of Well 54-11, Chacon Dakota Associated Pool

Dear Mr. Keller:

This is to notify the Bureau of Land Management that Chace Oil Company, Inc. has applied under the Oil Conservation Commission rule 303-C for authority to commingle the Gallup, Tocito, Greenhorn, and Dakota production.

The application is submitted for the Chace Oil Company, Inc. Well 54-11 in Unit 'K', of Section 3, T22N,R3W, Sandoval County, New Mexico.

Very truly yours,

Ross Easterling

Ross Easterling
Landman

RE/ss

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. 7754
Order No. R-7178

APPLICATION OF CHACE OIL COMPANY,
INC. FOR DOWNHOLE COMMINGLING,
SANDOVAL COUNTY, NEW MEXICO.

ORDER OF THE DIVISION

BY THE DIVISION:

This cause came on for hearing at 9 a.m. on December 16, 1982, at Santa Fe, New Mexico, before Examiner Richard L. Stamets.

NOW, on this 5th day of January, 1983, 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, Chace Oil Company, Inc., is the owner and operator of the Chace Apache 15 Well No. 2, located in Unit I of Section 20, Township 23 North, Range 3 West, NMPM, Sandoval County, New Mexico.

(3) That the applicant seeks authority to commingle Gallup and Dakota production within the wellbore of the above-described well.

(4) That from the Gallup zone, the subject well is capable of low marginal production only.

(5) That from the Dakota zone, the subject well 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 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 an allocation formula for each of the production zones.

IT IS THEREFORE ORDERED:

(1) That the applicant, Chace Oil Company, Inc., is hereby authorized to commingle Gallup and Dakota production within the wellbore of the Chace Apache 15 Well No. 2, located in Unit I of Section 20, Township 23 North, Range 3 West, NMPM, Sandoval County, New Mexico.

(2) 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 to each zone in each of the subject wells.

(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 concurrently present, to the Division, a plan for remedial action.

(4) 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

S E A L

DHC-394

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION
AZTEC DISTRICT OFFICE

RECEIVED
MAR 24 1983
OIL CONSERVATION DIVISION
SANTA FE

TONEY ANAYA
GOVERNOR

1000 RIO BRAZOS ROAD
AZTEC, NEW MEXICO 87410
(505) 334-6178

March 22, 1983

Mr. Gilbert Quintana
Oil Conservation Division
P. O. Box 2088
Santa Fe NM 87501

Re: Chace Oil Company--Downhole Commingled Wells

Dear Gilbert;

After reviewing the recommended allocations for the referenced wells from the letter of February 17, 1983, I think that they are acceptable as shown on page two of that letter.

If you have any questions please call this office.

Yours truly,

Frank T. Chavez
District Supervisor

FTC:gc

Enc.

The allocation of production formula for the two zones is presented below for each well:

Well:		Gallup:	Dakota:
#1-47-JV			
	Oil	25%	75%
	Gas	TSTM	TSTM
Chace Apache 15-2			
	Oil	21%	79%
	Gas	44%	56%
Chace Apache 15-3			
	Oil	21%	79%
	Gas	44%	56%
Chace Apache 54-10			
	Oil	27%	73%
	Gas	44%	56%
Chace Apache 54-11			
	Oil	18%	82%
	Gas	44%	56%

This report is submitted in compliance with the conditions set forth in the Oil Conservation Commission Orders, (referenced above), which grant Chace Oil Company, Inc. approval for downhole commingling in the subject wells.

Very truly yours,

Ron Gordon
Geologist

Ross Easterling
Landman

RE/ss

STATE OF NEW MEXICO
ENERGY AND MINERALS DEPARTMENT
OIL CONSERVATION DIVISION

TONEY ANAYA
GOVERNOR

March 11, 1983

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87501
(505) 827-5800

Ron Gordon, Geologist
Ross Easterling, Landman
Chace Oil Company, Inc.
313 Washington, S.E.
Albuquerque, New Mexico 87108

RE: Allocation of Production Study
for R-Order No's: DHC-388, 389,
393, 394, and R-7178

Gentlemen:

Your "Allocation of Production Study" for the above referenced orders, has been reviewed and has been found satisfactory with this office. Production is therefore allocated, as found in your study, according to the following formula;

WELL		ORDER NO.	GALLUP	DAKOTA
#1-47-JV		DHC-388		
	Oil		25%	75%
	Gas		44%	56%
Chace Apache 15-2		R-7178		
	Oil		21%	79%
	Gas		44%	56%
Chace Apache 54-3		DHC-389		
	Oil		21%	79%
	Gas		44%	56%
Chace Apache 54-10		DHC-393		
	Oil		27%	73%
	Gas		44%	56%
Chace Apache 54-11		DHC-394		
	Oil		18%	82%
	Gas		44%	56%

If you have any questions concerning this matter, contact Gilbert P. Quintana at 827-5807.

Sincerely,

JOE D. RAMEY,
Director

JDR/GPQ/dv

Enc.

cc: Aztec District Office
DHC-388,389,393,394, and
R-7178

Memo

From
Gilbert P. Quintana
Petroleum Engineer

To File; Order Nos; DHC-388, 389, 393, 394, and R-7178

Allocation Formula Calculations

Sufficient producing trends to establish a consistent and/or reliable allocation formula were not yet available. Therefore allocation of liquid production was based on volumetric reserves estimates. Gas allocation was based on data from Amoco's offset well in the NE/4/NE/4 Section 8, T23N, R3W, Sandoval County.

Dakota Test 598 MCF ≃ 56%
Gallup Test 469 MCF ≃ 44%
1069 MCF

Under the circumstances of inconclusive data this was the simplest and most reliable method.

Gilbert Quintana
3/10/83

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

TABLE OF CONTENTS

ALLOCATION OF PRODUCTION STUDY

CHACE OIL COMPANY, INC.

313 Washington S.E.

Albuquerque, New Mexico 87108

(505) 266-5562

February 17, 1983

Mr. Gilbert Quintana
Oil Conservation Division
P. O. Box 2088
Santa Fe, NM 87501

Mr. Frank T. Chavez
Oil Conservation Division
1000 Rio Brazos Road
Aztec, NM 87410

Gentlemen:

The following report is submitted to document and present an allocation of production formula for five (5) commingled wells owned and operated by Chace Oil Company, Inc.

The subject wells are completed in the Chacon Dakota Associated Pool, as well as an Undesignated Gallup Member or Members. Descriptions of the well locations and Conservation Division Order Numbers are listed below:

Well:	Description:	Order No.:
#1-47-JV	I-12-23N-04W	DHC-388
Chace Apache 15-2	I-20-23N-04W	R-7178
Chace Apache 15-3	F-20-23N-03W	DHC-389
Chace Apache 54-10	I- 3-22N-03W	DHC-393
Chace Apache 54-11	K- 3-22N-03W	DHC-394

Evaluation of the production histories of the offset wells and the subject wells, nearby test data, and our (in house) reserves study of the producing zones has enabled us to conclude that the Gallup and Dakota zones are capable of low to marginal production only, and that allocation of production attributable to each zone has been derived by reserve determination for oil and test data for gas.

The allocation of production formula for the two zones is presented below for each well:

Well:		Gallup:	Dakota:
#1-47-JV			
	Oil	25%	75%
	Gas	TSTM	TSTM
Chace Apache 15-2			
	Oil	21%	79%
	Gas	44%	56%
Chace Apache 15-3			
	Oil	21%	79%
	Gas	44%	56%
Chace Apache 54-10			
	Oil	27%	73%
	Gas	44%	56%
Chace Apache 54-11			
	Oil	18%	82%
	Gas	44%	56%

This report is submitted in compliance with the conditions set forth in the Oil Conservation Commission Orders, (referenced above), which grant Chace Oil Company, Inc. approval for downhole commingling in the subject wells.

Very truly yours,

Ron Gordon
Geologist

Ross Easterling
Landman

RE/ss

PRODUCTION HISTORY

Field: Chacon

Well: Chace Apache 15-2

Initial Production: 8/1977

Zones Completed: Dakota

Previous Year, (1982), by Month:

	Oil/Bbls.	Gas/MCF
January	8	304
February	23	171
March	0	0
April	0	0
May	0	0
June	0	0
July	0	0
August	0	0
September	129	12
October	13	26
November	See other sheet	
December	See other sheet	
Total:	173	513

Historical by Year:

	Oil/Bbls.	Gas/MCF
1981	1612	3614
1980	1706	5392
1979	2583	10190
1978	5582	8299
1977	4608	4212
Total Cumulative Prod.:	16264 Bbls.	32220 MCF

Remarks: This is production prior to workover of 11/1982.

PRODUCTION HISTORY

Field: Chacon

Well: Chace Apache 15-2

Date of Workover: 11/8/82

Zones Recompleted: Dakota, Greenhorn, Tocito, Gallup

Production, (by month), since workover:

	Oil/Bbls.	Gas/MCF
November	623	318
December	266	33
Total:	889	351

PRODUCTION HISTORY

Field: Chacon

Well: Chace Apache 15-3

Initial Production: 9/1977

Zones Completed: Dakota

Previous Year, (1982), by month:

	Oil/Bbls.	Gas/MCF
January	112	51
February	51	17
March	40	370
April	118	437
May	110	24
June	88	0
July	116	10
August	92	245
September	165	419
October	135	391
November	82	327
December	See other sheet	
Total:	1109	2291

Historical By Year:

	Oil/Bbls.	Gas/MCF
1981	1359	4015
1980	1616	4686
1979	2158	4908
1978	3575	2761
1977	2424	0
Total Cumulative Prod.:	12241 Bbls.	18661 MCF

Remarks: This is production prior to workover of 12/1982.

PRODUCTION HISTORY

Field: Chacon

Well: Chace Apache 15-3

Date of Workover: 12/6/82

Zones Recompleted: Dakota, Greenhorn, Tocito, Gallup

Production, (by month), since workover:

	Oil/Bbls.	Gas/MCF
December	133	393

PRODUCTION HISTORY

Field: Chacon

Well: Chace Apache 47-1-JV

Initial Production: 2/1982

Zones Completed: Greenhorn, Dakota

Production History:

	Oil/Bbls.	Gas/MCF
1982		
January		0
February	163	0
March	105	0
April	434	0
May	184	0
June	146	0
July	126	0
August	108	0
September	0	0
October	0	0
November	0	0
December	See other sheet	
Total:	1266	0

Remarks: This is production prior to workover of 12/1982.

PRODUCTION HISTORY

Field: Chacon

Well: Chace Apache 41-1-JV

Date of Workover: 12/11/82

Zones Recompleted: Dakota, Greenhorn, Tocito, Gallup

Production History, (by month), since workover:

	Oil/Bbls.	Gas/MCF
December	1056	0

PRODUCTION HISTORY

Field:	Chacon
Well:	Chace Apache 54-10
Initial Production:	11/1982
Zones Completed:	Dakota, Greenhorn, Tocito
Production History:	

	Oil/Bbls.	Gas/MCF
November	1901	0
December	1424	0
Total:	3325	0

PRODUCTION HISTORY

Field: Chacon

Well: Chace Apache 54-11

Initial Production: 7/1982

Zones Completed: Dakota, Tocito

Production History:

	Oil/Bbls.	Gas/MCF
July	234	0
August	1106	0
September	581	0
October	620	1787
November	627	463
December	536	161
Total:	3704	2411

CHACE OIL COMPANY
RESERVE DATA & OIL RESERVES
VOLUMES @ 14.73 PSIA & 60° F.

AREA Chacon '15' area COUNTY Sandoval

STATE New Mexico DATE Reserves as of 1-1-83

Geological Age						
Reservoir Name	Gallup Assoc. 15-2	Dakota 15-2	Gall.Assoc. 15-3	Dakota 15-3		
Average Depth						
Limiting Contact						
No. Wells Producing						
Productive Area, Acres	40	160	40	160		
Average Net Sand, Feet	48	49	55	56		
Reservoir Volume, Ac. Ft.	1920	7840	2200	8960		
Average Porosity, %	6.0	8.0	6.0	8.0		
Average Connate Water, %	60	50	60	50		
Liquid Specific Gravity, API						
Formation Volume Factor	1.160	2.105	1.160	2.105		
Orig. Oil in Place, Bbl./Ac. Ft.	160	147	160	147		
Orig. Oil in Place Reservoir, Bbls.	307200	1152480	352000	1317120		
Oil Recovery Factor, %	5	5	5	5		
Orig. Recoverable Oil, Bbls.	15360	57624	17600	65856		
Cum. Oil Production, Bbls.	187	16966	28	12346		
Remaining Rec. Oil, Bbls.	15173	40658	17572	53510		
% of O.R.R. attributable to each formation	21%	79%	21%	79%		

CHACE OIL COMPANY
RESERVE DATA & OIL RESERVES
VOLUMES @ 14.73 PSIA & 60° F.

AREA Chacon 47-1 area COUNTY Rio Arriba

STATE New Mexico DATE Reserves of 1-1-83

	Gallup Assoc. 47-1-JV	Dakota 47-1-JV				
Geological Age						
Reservoir Name						
Average Depth						
Limiting Contact						
No. Wells Producing						
Productive Area, Acres	40	160				
Average Net Sand, Feet	52	24				
Reservoir Volume, Ac. Ft.	2080	3840				
Average Porosity, %	6.0	8.0				
Average Connate Water, %	60	50				
Liquid Specific Gravity, API						
Formation Volume Factor	1.000	1.000				
Orig. Oil in Place, Bbl./Ac. Ft.	186	310				
Orig. Oil in Place Reservoir, Bbls.	386880	1190400				
Oil Recovery Factor, %	6	6				
Orig. Recoverable Oil, Bbls.	23213	71424				
Cum. Oil Production, Bbls.	264	2058				
Remaining Rec. Oil, Bbls.	22949	69366				
% of O.R.R. attributable to each formation	25%	75%				

CHACE OIL COMPANY
RESERVE DATA & OIL RESERVES
VOLUMES @ 14.73 PSIA & 60° F.

AREA Chacon '54' area COUNTY Sandoval

STATE New Mexico DATE Reserves as of 1-1-83

Geological Age						
Reservoir Name	Gallup Assoc. 54-10	Dakota 54-10	Gal.Assoc. 54-11	Dakota 54-11		
Average Depth						
Limiting Contact						
No. Wells Producing						
Productive Area, Acres	40	160	40	160		
Average Net Sand, Feet	30	22	11	14		
Reservoir Volume, Ac. Ft.	1200	3520	440	2240		
Average Porosity, %	6.0	8.0	6.0	8.0		
Average Connate Water, %	60	50	60	50		
Liquid Specific Gravity, API						
Formation Volume Factor	1.160	2.105	1.160	2.105		
Orig. Oil in Place, Bbl./Ac. Ft.	160	147	160	147		
Orig. Oil in Place Reservoir, Bbls.	192000	517440	70400	329280		
Oil Recovery Factor, %	10	10	10	10		
Orig. Recoverable Oil, Bbls.	19200	51744	7040	32928		
Cum. Oil Production, Bbls.	898	2427	667	3037		
Remaining Rec. Oil, Bbls.	18302	49317	6373	29891		
% of O.R.R. attributable to each formation	27%	73%	18%	82%		

Chace Oil Company, Inc.
313 Washington, S. E.
Albuquerque, NM 87108

Commingling Study

PRODUCTION - OFFSETTING WELLS

Chace Well	Offsetting Well	Location	Date I. P.	1-1-83 Cum. Prod.	Zones Completed
47-1-JV	None				
15-2	Chace 15-1	NE,NE Sec. 20 T23N,R4W	4/1977	17,931 B. O. 106,980 MCF	Dakota
15-3	As above				
54-10	Chace 54-1	NE,NE Sec. 3 T22N,R3W	11/1978	9,558 B. O. 84,276 MCF	Dakota
54-11	Chace 54-9	NE,NW Sec. 3 T22N,R3W	8/1981	9,009 B. O. 4,854 MCF	Dakota

Chace Oil Company, Inc.
313 Washington, SE
Albuquerque, NM 87108

Commingling Study

TEST DATA

Well: Amoco Production Company
#2-396 Jicarilla

Location: SE/4, Section 8, T23N,R3W
Rio Arriba County, New Mexico

Dakota Zone - Pressure @ 7600' 2094 PSIA

Date	Choke	FTP	Oil Rate Bbls/Day	Gas Rate MCFD
8-14-82	20/64	220	22	663
8-15-82	20/64	220	20	606
8-16-82	20/64	200	15	630
8-17-82	20/64	200	16	583
8-21-82	20/64	210	13	591
8-22-82	20/64	210	13	591
8-23-82	20/64	210	14	548
8-24-82	20/64	210	20	571

.53

Gallup Zone - Pressure @ 7400' 2010 PSIA

Date	Choke	FTP	Oil Rate Bbls/Day	Gas Rate MCFD
9-3-82	20/64	240	22	539
9-4-82	20/64	225	15	447
9-5-82	20/64	210	15	427
9-6-82	20/64	210	18	478
9-7-82	20/64	190	13	427
9-8-82	20/64	240	22	539
9-9-82	20/64	200	11	427

.47