5. LEASE

Tribal Contract #71

# UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

GEOLOGICAL SURVEY	Jicarilla Apache
THE PERSON OF TH	7. UNIT AGREEMENT NAME
SUNDRY NOTICES AND REPORTS ON WELLS	7. UNIT AGREEMENT TAME
(Do not use this form for proposals to drill or to deepen or plug back to a different reservoir. Use Form 9–331–C for such proposals.)	8. FARM OR LEASE NAME
	Jicarilla Tribal Cont. #71
1. oil gas well other	9. WELL NO.
2. NAME OF OPERATOR	<b>%</b> -11
Chace Oil Company, Inc.	10. FIELD OR WILDCAT NAME
3. ADDRESS OF OPERATOR	S. Lindrith Gallup Dakota
313 Washington, SE, Albuquerque, NM 87108	11. SEC., T., R., M., OR BLK. AND SURVEY OR
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17	AREA
below.) AT SURFACE: Unit 'P' - 790' FSL & 330' FEL	Section 3, T23N,R4W  12. COUNTY OR PARISH 13. STATE
AT SURFACE: Unit 'P' - 790' FSL & 330' FEL AT TOP PROD. INTERVAL:	Rio Arriba New Mexico
AT TOTAL DEPTH:	14. APPNO.
16. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE,	
PERCOT OR OTHER DATA	5. ELEVATIONS (SHOW DF, KDB, AND WD)
REQUEST FOR APPROVAL TO:  TEST WATER SHUT-OFF FRACTURE TREAT SHOOT OR ACIDIZE REPAIR WELL PULL OR ALTER CASING	M426' KB
REQUEST FOR APPROVAL TO: SUBSEQUENT REPORTED	<u> </u>
FRACTURE TREAT	83 🚺 ŚŚŚŚ 🛈 🛂 🖫
SHOOT OR ACIDIZE	SUPURE: Report results of multiple completion or zone change on Form 9-330.)
REPAIR WELL [] MAY	Report results of multiple completion or zone
	AL M. Change on Form 9–330.)
MULTIPLE COMPLETE  CHANGE ZONES  Sealing	
ABANDON*	
(other)	
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly sta	te all pertinent details, and give pertinent dates,
including estimated date of starting any proposed work. If well is	directionally drilled, give subsurface locations and
measured and true vertical depths for all markers and zones pertine	ant to this work.)
	A STEEL BESTER
Well History attached. May 4, 198	83 <b>[9] E.P. E. B.</b>
through May 9, 1983.	
	788
	DIV. DIV
	OR SERVICE SER
	in with the control of the control o
	28 - 20 - 20 - 20 - 20 - 20 - 20 - 20 -
	00 Pig. 20 Pig
Subsurface Safety Valve: Manu. and Type	<u> </u>
18. I hereby certify that the foregoing is true and correct	0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.0
President	DATE May 111, 1983
SIGNED TITLE	21 U. 199 H. 4
(This space for Federal or State of	office use) ( 기계
APPROVED BY TITLE	DATE CNEW TERMS
CONDITIONS OF APPROVAL, IF ANY:	100 mm
	등 설립하다 한 경험 하는 기계
	황철희의 방 물건질
	* * * * * * * * * * * * * * * * * * *

\*See Instructions on Reverse Side

MAY 1 1 1983





## 5/4/83:

- 4:00 P. M. Start picking up tubing and bit.
- 5:55 P. M. Tag cement @ 3188'. 98 joints + 10' stickup
- 8:00 P. M. Tag D. V. tool @ 3300'.
- 10:45 P. M. Broke through D. V. tool.

#### 5/5/83:

- 2:15 A. M. Tag cement @ 90' from float collar.
- 4:00 A. M. Drill cement out to 7700'.
- 4:31 A. M. Start pumping. Broke down @ 1600 PSI.
  Pump into casing @ 1400 PSI, 1 BPM.
  Establish rate 2.8 BPM @ 1900 PSI.
- 4:48 A. M. Pump on casing. Open valve on bradenhead to see if wellhead is leaking. No visible leak.
- 4:55 A. M. Come out of hole with tubing.
- 7:00 A. M. Go in hole with packer. Set packer @ 3551' - 55 stands tubing.
- 8:17 A. M. Test casing above packer to 3400 PSI. He
- 8:24 A. M. Hook up to tubing to test below packer.
  Broke @ 2900 PSI, 1 BPM.
  Pump in @ 4 BPM, 1700 PSI.
- 9:00 A. M. Test casing with 87 stands (5624.69') in hole. Test to 3500 PSI. Held pressure.
- 9:07 A. M. Go in hole with 16 more stands.
- 9:23 A. M. Test casing with 103 stands in hole. (6662.15' tubing)
  Held 3500 PSI.
- 9:55 A. M. Test casing with 118 stands in hole. ± 7622.8. Held 3500 PSI.
- 9:58 A. M. Tie on to tubing. Pressure test. Broke @ 3200 PSI. Establish rate. 3 BPM @ 2000 PSI.
- 10:13 A. M. Test casing with packer set ± 7667.69. 118 stands and single held 3500 PSI.
- 10:19 A. M. Pump down tubing. Broke @ 2450 PSI.

- 10:30 A. M. Circulate hole with tubing @ 7667.69'.
- 12:45 P. M. Come out of hole with tubing.
  - 1.00 P. M. Go in hole with logging tools.
  - 1:48 P. M. Collar locator not functioning. Come out of hole to replace locator.
  - 5:00 P. M. On bottom with logging tools. Run Gamma Ray CBL with no collar locator.
  - 7:15 P. M. Go in hole with cement retainer.
  - 7:55 P. M. Set retainer @ 7660'.
  - 8:30 P. M. Go in hole with tubing and stinger.
  - 9:45 P. M. Set tubing stinger in retainer. Put 500 PSI on casing.
- 10:15 P. M. Pump 100 sks Class B down tubing. 3 BPM, 1300 PSI. Disp. with 30.5 bbls  $\rm H_2O$ . 2.5 BPM, 2400 PSI.
- 11:00 P. M. Pulled out of retainer. Reverse circulate cement out of tubing. Pull 5 stands tubing.

### 5/6/83: WOC.

- 8:00 A. M. Pressure test casing to 4000 PSI.
  Circulate hole with 2% Kcl water.
  Spot 250 gal. 7½% Acetic acid from 7606' uphole.
- 8:30 A. M. Come out of hole with tubing.
- 10:30 A. M. Go in hole with logging tool.
- 11:15 A. M. Run correlation log from T. D. to 5850'. Wireline T. D. 7662', uncorrected. Corrected T. D. 7659'.
- 12:37 A. M. Perforate <u>Dakota 'D'</u> zone @ 7575', 7580', 7582', 7587', 7589', 7591', 7593', 7597', 7599', 7603' 4 SPF, 40 holes.

#### DAKOTA 'D' ZONE

- 12:57 P. M. Break down 2100 PSI.
  Establish rate 44 BPM @ 3200 PSI.
  ISIP = 1500 PSI
  Start ball. 3 balls/bbl for 10 bbls.
  10 bbl. spacer.
  3 balls/bbl. for 10 bbls.
  - 1:05 P. M. Ball action. 19 BPM 2500 PSI.

- 1:08 P. M. Have a ball off. 4000 PSI.
- 1:09 P. M. Surge balls off perforations. Wait 30 min. for balls to clear perforations.
- 1:41 P. M. Start pad. 53 BPM @ 3500 PSI.
- 1:43 P. M. 55 BPM @ 3650 PSI.
- 1:46 P. M. Slow rate to 50 BPM @ 3875 PSI.
- 1:49 P. M. High pressure. Slow rate to 44 BPM @ 3600 PSI.
- 1:50 P. M. Start 0.5 lb/gal sand 43 BPM @ 3600 PSI.
- 1:51 P. M. 0.5 lb/gal sand on formation 43 BPM @ 3450 PSI
- 1:53 P. M. Start 1 lb/gal sand 43 BPM @ 3500 PSI
- 1:56 P. M. 1 lb/gal sand on formation 44 BPM @ 3300 PSI
- 1:59 P. M. 44 BPM @ 3175 PSI
- 2:02 P. M. 44 BPM @ 3100 PSI
- 2:15 P. M. Start 1.5 lb/gal sand 44 BPM @ 3250 PSI
- 2:18 P. M. 1.5 lb/gal sand on formation 44 BPM @ 3400 PSI

High pressure Slow to 34 BPM @ 3500 PSI

At 1814 bbls., go to 1 lb/gal sand On 1 lb/gal sand 34 BPM @ 3400 PSI

- 2:30 P. M. 34 BPM @ 3500 PSI
- 2:37 P. M. 36 BPM @ 3500 PSI
- 2:38 P. M. Go to flush

  Flush away. Shut down

  ISIP = 1200 PSI

  5 min Shut in 1050 PSI

  10 min Shut in 1000 PSI

#### Total fluid = 2450 bbls.

Total sand = 93,000 lbs.

- 3:00 P. M. Go in hole with EZ drill bridge plug.
- 3:32 P. M. Set plug @ 7500'.
- 3:48 P. M. Pressure test plug to 4000 PSI.

- 3:55 P. M. Go in hole with tubing.
- 5:30 P. M. Spot 400 gal. 72% Hcl from 7432' up hole.
- 7:15 P. M. Out of hole with tubing.
- 7:30 P. M. Go in hole with perforating guns.
- 7:40 P. M. Collar locator not working. Come out of hole with guns.
- 8:30 P. M. Go back in hole with guns.
- 8:51 P. M. Perforate <u>Tocito zone</u> @ 7120', 7123', 7125', 7127, 7129. 4 SPF - 20 holes.
- 9:06 P. M. Breakdown Tocito formation.
  Broke @ 1500 PSI.
  Establish rate. 27 BPM @ 3250 PSI
  ISIP = 1800 PSI.
- 9:12 P. M. Go in hole with guns to perforate <u>Greenhorn</u>.

  Perforate @ 7337', 7345', 7353', 7355', 7358', 7361', 7363',

  4 SPF 28 holes.
- 9:51 P. M. Break down Greenhorn formation.
  No break in formation.
  Establish rate. 37 BPM @ 3600 PSI
  ISIP = 2000 PSI.
- 9:57 P. M. Go in hole with perforating guns. Perforate Dakota 'A' zone @ 7414', 7416', 7422', 7424', 7426', 7428', 7430', 7432'. 4 SPF 32 holes.
- 10:33 P. M. Break down all 3 formations.
  Establish rate. 51 BPM @ 3400 PSI.
  ISIP = 1100 PSI.
- 10:39 P. M. Start balls. 3 balls/bbl in 20 bbls.
  10 bbl. spacer.
  3 balls/bbl in 20 bbls.
- 10:45 P. M. Balls on formation.
- 10:48 P. M. Have ball off. 4000 PSI.
- 11:00 P. M. Go in hole with junk basket.
- 11:25 P. M. On bottom with junk basket. Have 40! of fill. Tag T. D. @ 7460'.

  Recovered 116 balls.
- 11:43 P. M. Start pad. 56 BPM @ 2900 PSI.
- 11:47 P. M. 58 BPM @ 3100 PSI.

- 11:49 P. M. 55 BPM @ 3600 PSI.
- 11:51 P. M. Start 0.5 lb sand 55 BPM @ 3600 PSI
- 11:53 P. M. 0.5 lb/gal sand on formation 55 BPM @ 3600 PSI High pressure Slow rate to 50 BPM @ 3500 PSI
- 11:54 P. M. Start 1 lb/gal sand 51 BPM @ 3500 PSI
- 11:56 P. M. Have pressure drop.
  Pop off valve leaking.
  Cut sand. Go to flush.
  Have pressure drop to 1400 PSI from 3400 PSI.
  Shut down. Fix popoff valve.

## 5/7/83:

- 12:03 A. M. Start pad. Pump 60 bbls. No visible leaks.
- 12:05 A. M. Start 1 lb/gal sand 48 BPM @ 3150 PSI 1 lb/gal sand 49 BPM @ 3200 PSI
- 12:10 A. M. 50 BPM @ 3000 PSI
- 12:20 A. M. Start 1.5 lb/gal sand 50 BPM @ 3000 PSI
- 12:22 A. M. 1.5 lb/gal sand on formation 50 BPM @ 3000 PSI
  - 1.5 lb/gal sand 49 BPM @ 2900 PSI
- 12:34 A. M. Go to flush. 49 BPM @ 3000 PSI
- 12:37 A. M. Flush away. Shut down.
  ISIP = 1800 PSI.
  5 min. shut in = 1400 PSI
  10 min. shut in = 1375 PSI
  15 min. shut in = 1325 PSI

# Total fluid = 2372 bbls.

Total sand = 80,000 lbs.

- 1:03 A. M. Go in hole with retrievable bridge plug.
- 1:59 A. M. Set Baker bridge plug @ 6650'.
- 2:20 A. M. Pressure test bridge plug.
  Plug moved @ 3350 PSI. Pressure stabilized @ 2500 PSI.
  Moved ± 25' down hole, 6675'. Pressured up on plug to
  4000 PSI. Held pressure.
- 2:40 A. M. Go in hole with dump bailer. Spot 7 gal. sand on plug. Dump bailer hung up 4 times coming out of hole.

- 4:00 A. M. Trip in hole with tubing. Spot 450 gal. 75% Hcl from 6563' up hole.
- 8:15 A. M. Go in hole with perforating guns.
- 8:35 A. M. Perforate <u>Upper Gallup</u> @ 6004', 6010', 6018', 6027', 6030', 6032', 6039', 6047', 6052', 6063', 6065' 2 SPF, 22 holes.
- 8:55 A. M. Go in hole with perforating guns.
- 9:10 A. M. Perforate Upper Gallup @ 6068', 6072', 6080', 6085', 6087', 6089', 6102', 6107', 6110', 6112', 6114' 2 SPF, 22 holes.
- 9:26 A. M. Go in hole with perforating guns.
- 9:35 A. M. Perforate Upper Gallup @ 6117', 6124', 6126', 6128', 6134', 6140', 6142', 6153', 6169', 6174', 6178' 2 SPF, 22 holes.
- 9:49 A. M. Go in hole with perforating guns.

  Perforate Upper Gallup @ 6182', 6210', 6216', 6235'.

  Perforate Lower Gallup @ 6345'.

  Total Upper Gallup perforations: 74

## Break down Upper Gallup Formation

- 10:15 A. M. Broke @ 1400 PSI.

  Establish rate. 72 BPM @ 3000 PSI.

  ISIP = 500 PSI. 2 min. shut in = 400 PSI.

  Total fluid for breakdown: 108 bbls.
- 10:20 A. M. Flow well back to pit.
- 10:40 A. M. Go in hole with tubing and packer to test Upper Gallup zone. Set packer @ 5900'.
- 12:15 P. M. Swab Gallup formation in.
  1st two runs recovered water.
  3rd run water.
  4th run water. Drilling mud, slight oil show.
  5th, 6th, 7th swab run drilling mud, slight oil show, good gas show.
  - 3:30 P. M. Come out of hole with tubing and packer.
  - 5:15 P. M. Go in hole with perforating guns.
  - 5:27 P. M. Perforate Lower Gallup @ 6355', 6360', 6362', 6368', 6374', 6402', 6404', 6406', 6411', 6416', 6435' 2 SPF 22 holes.
  - 5:55 P. M. Go in hole with perforating guns.
  - 6:00 P. M. Perforate <u>Lower Gallup</u> @ 6440', 6443', 6445', 6461', 6543', 6551', 6553', 6555', 6559', 6561', 6563'.

    Total Gallup perforations: 120.

#### GALLUP FRAC

- 6:19 P. M. Break down Upper and Lower Gallup perforations.
  Broke @ 3500 PSI.
  Establish rate. 88 BPM @ 3100 PSI.
  ISIP = 350 PSI
- 6:21 P. M. Start balls. 4 balls/bbl in 22 bbls.
  10 bbl spacer.
  4 balls/bbl in 23 bbls.
  Bring rate up to 42 BPM
  Ball action on second set of balls.
  All balls gone. No ball off.
- 6:39 P. M. Try ball off again.
  Drop 150 balls. Have ball off @ 4000 PSI.
  Total: 330 balls.
- 6:50 P. M. Go in hole with junk basket to retrieve balls.
  Pick up 204 balls. Have 126 balls on bridge plug.
- 7:32 P. M. Start pad. 94 BPM @ 3000 PSI.

7:37 P. M.	Start 0.5 lb/gal sand 0.5 lb/gal sand on formation				3300 3400	
7:39 P. M.	Start 1 lb/gal sand	92	BPM	@	3400	PSI
7:40 P. M.	<pre>l lb/gal sand on formation</pre>	91	BPM	<b>@</b>	3400	PSI
7:42 P. M.		92	BPM	@	3400	PSI

- 7:46 P. M. 92 BPM @ 3350 PSI
- 7:53 P. M. 90 BPM @ 3400 PSI
- 7:57 P. M. Start 1.5 lb/gal sand 88 BPM @ 3400 PSI
- 7:58 P. M. 1.5 lb/gal sand on formation 82 BPM @ 3550 PSI
- 7:59 P. M. 80 BPM @ 3600 PSI
- 8:00 P. M. 76 BPM @ 3650 PSI
- 8:04 P. M. 70. BPM @ 3700 PSI High pressure. 3900 PSI. Slow rate.
- 8:06 P. M. 72 BPM @ 3800 PSI
- 8:12 P. M. 71 BPM @ 3800 PSI
- 8:14 P. M. 68 BPM @ 3500 PSI

- 8:18 P. M. Cut sand. Go to flush
- 8:19 P. M. Shut down.

Total fluid:4000 bbls H20

Total sand: 160,000 lbs.

ISIP = 900 PSI 5 min = 400 PSI 10 min = 350 PSI 15 min = 300 PSI

11:00 P. M. Open well up. Flow back Gallup formation.

## 5/8/83:

- 4:00 A. M. Gallup flow subsided enough to start in hole with tubing. Tag sand @ 6100'. Oil show. Clean sand out to retrievable bridge plug.
- 1:41 P. M. Release B. P. Start out of hole.
  Had a good flow of oil out of Dakota 'A' zone when plug was released.
- 4:00 P. M. Out of hole with bridge plug.
- 4:20 P. M. Go in hole with tubing and mill.

  Tag sand @ 60' above bridge plug.

  After cleaning down 2 joints of tubing through sand, mill plugged up.
- 10:00 P. M. Trip out with tubing and mill. Unable to clean out jets on mill. Call Homco to deliver another mill.

### 5/9/83:

- 11:00 A. M. On bridge plug milling.
- 1:00 P. M. Cleaned out to 7660'. Circulated 2 hours. Tripped out of hole with tubing.
- 3:30 P. M. Trip in hole with production tubing. Landed 2 3/8" tubing @ 7550'.