Jicarilla Tribal Contract #71

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

5. LEASE

# UNITED STATES DEPARTMENT OF THE INTERIOR GEOLOGICAL SURVEY

	Jicarilla Apache
SUNDRY NOTICES AND REPORTS ON WELLS	7. UNIT AGREEMENT NAME
Do not use this form for proposals to drill or to deepen or plug back to a different eservoir. Use Form 9–331–C for such proposals.)	8. FARM OR LEASE NAME
	Jicarilla Tribal Contract #71
1. oil	9, WELL NO.
2. NAME OF OPERATOR	<b>M</b> -23
Chace Oil Company, Inc.	16. FIELD OR WILDCAT NAME
3. ADDRESS OF OPERATOR	South Lindrith, Gallup Dakota
313 Washington, SE, Albuquerque, NM 87108	11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
4. LOCATION OF WELL (REPORT LOCATION CLEARLY. See space 17	Section 10, T23N,R4W
below.) Unit 'F' - 1805' FNL & 2255' FWL AT SURFACE:	12. COUNTY OR PARISH 13. STATE
AT TOP PROD. INTERVAL:	Rio Arriba New Mexico
AT TOTAL DEPTH:	14. API NO.
6. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE,	[
REPORT, OR OTHER DATA	15. ELEVATIONS (SHOW DF, KDB, AND WD)
REQUEST FOR APPROVAL TO: SUBSEQUENT REPORT OF:	
TEST WATER SHUT-OFF  FRACTURE TREAT  RECE	IVED 描版 Line
shoot or acidize $\square$ $\square$ MAY $3.1$	1984 NOTE: Report results of multiple completion or zone
PULL OR ALTER CASING	change on Form 9-330.)
MULTIPLE COMPLETE BUREAU OF LAND CHANGE ZONES FARMINGTON RES	SOURCE AREA
CHANGE ZONES	는 사람들은 기계를 받는 것이 되었다. 
ABANDON*	
17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clearly state	의원일류 <b>리 한</b> 글 조건
including estimated date of starting any proposed work. If well is discussived and true vertical depths for all markers and zones pertiner  See Well History attached:  5/11/84 through 5/16/84  DIE COLL COLL COLL COLL COLL COLL COLL COL	to this work.)
Subsurface Safety Valve: Manu. and Type	Ft
Subsurface Safety Valve: Manu. and Type  18. I hereby certify that the tonegoing is true and correct	Elberti illique de li illique
Subsurface Safety Valve: Manu. and Type  18. I hereby certify that the tonegoing is true and correct	Ft
18. I hereby certify that the tenegoing is true and correct	## Set @ ## ## Ft ## ## Ft ## ## ## Ft ## ## ## ## ## ## ## ## ## ## ## ## ##
Subsurface Safety Valve: Manu. and Type  18. I hereby certify that the foregoing is true and correct  SIGNED  TILE President  (This space for Federal or State of	## Set @ ## ## Ft ## ## Ft ## ## ## Ft ## ## ## ## ## ## ## ## ## ## ## ## ##
18. I hereby certify that the tenegoing is true and correct  SIGNED  TILE President  (This space for Federal or State of	DATE May 19 19 19 19 19 19 19 19 19 19 19 19 19

NMOCC

#### 5/5/84:

Day #12. Present operation: drilling. Depth today: 7430'. 24 hour footage: 250'. Drill collars - No: 21. Size: 6". Bore: 2½. Weight: 50,000#. Rotary - RPM: 55. Weight on bit: 38,000#. Present drilling rate: 8'/hr. Pump - liner size: 5½. Pressure: 1,000#. Strokes per minute: 52. Mud - Vis: 45. Wt.: 9.5. ICM: 3%. No additives information. Deviation record: 1 3/4° @ 7156'. Bit #6: 7 7/8", J33; 274', 26 1/2 hours.

1/4 hour

RS. Check BOP.

23 3/4 hours

Drilling

#### 5/6/84:

Day #13. Present operation: logging. Depth today: 7632' TD. 24 hour footage: 202'. Drill Collars: No: 21. Size: 6. Bore: 24. Weight: 50,000#. Mud - Vis: 70. Wt.: 9.6. W. L.: 5.0. 5% LCM. Deviation record: 2° @ 7632'.

1/4 hour

RS

15 1/4 hours

Drilling

3 hours

Circulate

4 1/4 hours

Trip for log

1 hour

Logging

### 5/7/84:

Day #14. Present operation: Setting casing. Depth today: 7632' TD.

4 1/4 hours

Loq

7 1/4 hours Trip. Lay down drill pipe and drill collars

4 1/2 hours

Run 4½" casing.

2 hours

Circulate and cement first stage

3 hours

Open D. V. tool and circulate

1 hour

Cement second stage

2 hours

Nipple down. Set casing slips

Rig released at 6:00 A. M.

Ran 187 joints, plus a short joint, of 4½", 11.6 lb/ft N-80 casing, set at 7632' KB. Guide shoe @ 7631'. Float collar at 7588'. Short joint from 5984'-6000'. D. V. tool at 3119'. Cement baskets at 7019', 6898', 5697', 5127', 4597', 2339'. First stage: pumped 20 bbls. Flochek 21. Cemented first stage with 1250 sks (1788 CF) 50/50 pozmix, 2% gel, 6¼ lb/sk Gilsonite, 6 lb/sk salt. Plug down @ 12:05 P. M. Opened D. V. tool. Circulated upper stage 3 hours. Second stage: Pumped 20 bbls. Flochek 21. Cemented second stage with 450 sks. (1049 CF) 65/35 pozmix, 12% gel, 6¼ lb/sk Gilsonite. Tailed in with 50 sks. (59 CF) Class B neat. Plug down at 3:50 A. M. on 5/7/84. Circulated 15 bbls cement to surface.

#### COMPLETION REPORT

#### 5/11/84:

Pick up 3 7/8" bit and 2 3/8" tubing. Tag cement on top of D. V. tool with 94 jts. with 10' stickup. Have 84' of cement to drill.

Tag cement 90' above float collar. Drill out cement to 7580' KB. Tag collar.

#### 5/14/84:

- 8:04 A. M. Pressure test casing to 4000 PSI.
- 8:09 A. M. Circulate casing clean with 2% Kcl water.
- 9:10 A. M. Spot 200 gal 7½% acetic acid from 7502' up hole. Trip out of hole with tubing.
- 11:00 A. M. Start in hole with logging tools.

  Wireline T. D. = 7582'.

  Log from 7582' to 5900' CBL and Correlation 5400' to 4900'

  3150' to 2000'
- 2:43 P. M. Perforate Dakota 'D' zone:

7447', 7451', 7474', 7476', 7478', 7480', 7482', 7484', 7486', 7488', 7490', 3 SPF, 33 holes.

3:15 P. M. Perforate Dakota 'D' zone at
7492', 7494', 7502', 3 SPF, 9 holes.

Total of 42 holes.

- 3:48 P. M. Break down 'D' zone.

  Broke at 2300 PSI.

  Establish rate 51 BPM @ 3500 PSI

  Shut down. ISIP = 450 PSI

  Start balls. 2 balls/bbl for 30 bbls.

  Increase rate to 48 BPM at 2600 PSI

  50 BPM at 2800 PSI

  Have ball off at 4000 PSI.

  Use 176 bbls. for breakdown and ball off.
- 4:10 P. M. Start in hole with junk basket. Recover 60 balls.
- 4:51 P. M. Start pad. 55 BPM @ 3000 PSI Have a line leak. Shut down.
- 4:54 P. M. With 221 bbls pad away
  ISIP = 1000 PSI
  7 min. shut in 600 PSI
- 5:00 P. M. Start pad. 56 BPM @ 3200 PSI
- 5:05 P. M. Start 0.5 lb sand 55 BPM @ 3300 PSI
- 5:06 P. M. 0.5 lb sand on formation 55 BPM @ 3400 PSI
- 5:08 P. M. Start 1.0 lb sand 53 BPM @ 3300 PSI

5:10 P. M.	1.0 sand on formation	53	BPM	@	3300	PSI
5:12 P. M.	Have a line burst. Shut dow Repair line.	m at	825	bk	ols av	vay.
5:14 P. M.	Start back up on 1.0 lb sand	<sup>-</sup> 52	BPM	@	3550	PSI
5:18 P. M.	On 1.0 lb sand	50	BPM	@	3600	PSI
5:20 P. M.	Start 1.5 lb sand	52	BPM	@	3450	PSI
5:23 P. M.	1.5 lb sand on formation	52	BPM	@	3500	PSI
5:24 P. M.	On 1.5 lb sand Pressure at 3850 PSI.	50	BPM	@	3400	PSI
	Slow rate to On 1.0 lb sand		BPM BPM	@	3400	PSI
5:29 P. M.	Increase sand concentration 1.5 lb sand		BPM	@	3300	PSI
5:32 P. M.	1.5 lb sand on formation On 1.5 lb sand Go to 1.0 lb sand at 1779 bb Reach max. pressure. Shut d Flow well back until slug of	ols. lown.				
6:13 P. M.	Start pumping.  Pad on formation	34	BPM	9	3400 3200 2900	PSI
6:18 P. M.	Start 3/4 lb sand Start at 150 bbls. 3/4 lb sand				2850	
	on formation Start 1.0 lb sand			9	2800 3000 24 bb	PSI
6:26 P. M.	Cut sand. Go to flush Flush away. Shut down. ISIP = 1800 PSI 5 min = 1375 PSI	35	BPM	@	3000	PSI
	68,100 lbs sand					
	2,268 bbls fluid					

Start in hole with bridge plug.

7:17 P. M. Set plug at 7400'.

Pressure test plug to 4000 PSI.

Trip in hole with tubing.

Spot 300 gal 7½% Hcl from 7360' up hole.

Perforate Tocito at 6994', 7033', 7035', 3 SPF, 9 holes.

#### 5/15/84:

- 12:45 A. M. Perforate Greenhorn at 7245', 7249', 7251', 7254', 7256', 7259', 7262', 7264', 3 SPF, 24 holes.
  - 1:19 A. M. Break down perforations.

    Broke at 2600 PSI

    Establish rate 31 BPM @ 3000 PSI

    Shut down. ISIP = 1600 PSI

    Flow well dead.
- 1:44 A. M. Perforate Greenhorn at 7268', 7271', 3 SPF 6 holes.
- 1:45 A. M. Perforate Dakota 'A' at 7322', 7324', 7326', 7328', 7330', 7332', 7334', 7336', 7360', 3 SPF, 27 holes.

56 BPM @ 3750 PSI

- 2:04 A. M. Establish rate in all perforations. 50 BPM @ 3500 PSI Shut down. ISIP = 950 PSI
- 2:06 A. M. Start balls. 3 balls/bbl in 33 bbls.
  Increase rate to 42 BPM @ 3000 PSI
  Have ball off at 400 PSI
  Use 174 bbls for break down and ball off.
- 2:28 A. M. Start in hole with junk basket.

Recover 78 balls.

3:28 A. M. Start 1.5 lb sand

# DAKOTA 'A', GREENHORN, AND TOCITO FRAC:

3:08 A. M. Start pad 58 BPM @ 3600 PSI 57 BPM @ 3700 PSI 3:16 A. M. Start 0.5 lb sand 57 BPM @ 3700 PSI 3:18 A. M. 0.5 lb sand on formation 56 BPM @ 3750 PSI 3:19 A. M. Start 1.0 lb sand 56 BPM @ 3750 PSI 3:21 A. M. 1.0 lb sand on formation 56 BPM @ 3750 PSI 3:25 A. M. On 1.0 lb sand 56 BPM @ 3750 PSI

3:30 A. M. 1.5 lb sand on formation

55 BPM @ 3775 PSI

3:34 A. M. On 1.5 lb sand

54 BPM @ 3800 PSI

At 3900 PSI slow rate.

3:39 A. M. ± 51 BPM @ 3800 PSI on 1.5 lb sand

3:41 A. M.

50 BPM @ 3775 PSI

At 3900 PSI slow rate to ± 47 BPM

3:50 A. M. Cut sand. Go to flush.

3:53 A. M. Flush away. Shut down.

ISIP = 1800 PSI

 $5 \min = 1450 PSI$ 

 $10 \min = 1275 PSI$ 

Total sand = 90,000 lbs.

Total fluid = 2,250 bbls.

4:15 A. M. Start in hole with Baker bridge plug.

4:50 A. M. Set plug at 6520'.

5:12 A. M. Pressure test plug to 4000 PSI.

Trip in hole with tubing. Spot 350 gal. 7½% Hcl from 6472' up hole.

- 9:45 A. M. Perforate Gallup at 5992', 5997', 6012', 6016', 6034', 6071', 6100', 6103', 6184', 6225', 6232', 2 SPF, 22 holes.
- 10:04 A. M. Break down Upper Gallup perforations

Broke at 2600 PSI

Establish rate

34 BPM @ 2150 PSI

Shut down. ISIP = 200 PSI

- 10:27 A. M. Perforate Gallup at 6252', 6272', 6301', 6349', 6387', 6393', 6410', 6416', 6423', 6425', 6430', 2 SPF, 22 holes.
- 10:58 A. M. Perforate Gallup at 6433', 6435', 6438', 6454', 6458', 6460', 6462', 6464', 6466', 6469', 6472', 2 SPF, 22 holes.

  Total of 66 holes.

11:17 A. M. Establish rate.

65 BPM @ 3450 PSI

Shut down. ISIP = 300 PSI.

Start balls. 3 balls/bbl for 33 bbls

Increase rate to

48 BPM @ 1800 PSI

Have a ball off at 4000 PSI.

Start in hole with junk basket.

Recover 85 balls. Left 15 balls on plug.

#### GALLUP FRAC

12:31 P. M. Start pad.

88 BPM @ 3400 PSI

12:36 P. M. On pad

87 BPM @ 3600 PSI

12:37 P. M. Shut down. Have line leak.

482 bbls away. ISIP = 200

12:39 P. M. Leak fixed. Start pumping.

12:40 P. M. Start 0.5 lb sand

87 BPM @ 3450 PSI

12:41 P. M.

0.5 lb sand on formation

86 BPM @ 3500 PSI

12:42 P. M. Start 1.0 lb sand

87 BPM @ 3400 PSI

12:43 P. M.

1.0 lb sand on formation

86 BPM @ 3600 PSI

12:45 P. M.

On 1.0 lb sand

84 BPM @ 3700 PSI

12:50 P. M.

83 BPM @ 3700 PSI

12:54 P. M. Start 1.5 lb sand

81 BPM @ 3450 PSI

12:55 P. M.

1.5 lb sand on formation

80 BPM @ 3600 PSI

12:58 P. M.

On 1.5 lb sand

78 BPM @ 3700 PSI

1:00 P. M. At 3900 PSI slow rate to

68 BPM

On 1.5 lb sand

68 BPM @ 3200 PSI

Pressure at 3150 PSI.

Increase rate to

72 BPM

1:04 P. M. On 1.5 lb sand

72.5 BPM @ 3500 PSI

# Jicarilla Apache 71-23 Completion Report

Page Eleven

1:06 P. M. On 1.5 lb sand

72 BPM @ 3600 PSI

1:07 P. M. At 3800 PSI slow rate to

68 BPM

1:10 P. M.

On 1.5 lb sand

68 BPM @ 3500 PSI

1:13 P. M. Cut sand. Go to flush.

1:14 P. M. Flush away. Shut down.

ISIP = 375 PSI

 $5 \min = 300 PSI$ 

 $10 \min = 250 PSI$ 

 $15 \min = 200 PSI$ 

Total sand = 125,000 lbs

Total fluid = 3,215 bbls

2:45 P. M. Open well up. Flow Gallup formation back.

Start in with tubing. Tag sand - 11 jts above bridge plug.

6:00 P. M. Circulated 3 joints of sand off bridge plug when rig pump cratered.

Trip out of hole with tubing.

## 5/16/84:

1:00 A. M. Repair rig pump. Recover bridge plug set at 6520'. When plug was released, well went on a vacuum.

Mill up bridge plug set at 7400' KB.

Clean out casing to 7588' KB.

Land production tubing with seating nipple at 7393' KB with a 5' perforated sub and a 32' tail joint of tubing below seating nipple.