

O'BRIANT ENGINEERING

P.O. Box 10487

Midland, Texas 79702

915-683-5511

915-683-3172

RECEIVED

Mr. Michael Stogner
Energy and Mineral Department
Oil Conservation Division
P. O. Box 2088
Santa Fe, New Mexico 87501

SEP 28 '89

~~May 2, 1989~~

September 27, 1989

O. C. D.
ARTESIA, OFFICE

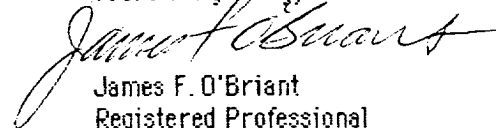
Re: DUAL COMPLETION PROCEDURE
Montoya and Abo Zones
Yates Energy Corporation
Seymour State Com. No. 2
Chaves County, New Mexico

Dear Mr. Stogner:

Yates Energy Corporation plans to dually complete the subject well from the Abo and Montoya formations. Production from off-set Abo wells is reported as dry gas, therefore, we are planning to complete the Montoya Zone via tubing and the Abo zone through the casing-tubing annulus and request your approval.

A copy of the completion procedure is attached to Form C-105 dated 9/26/89. Please advise if you need additional information.

Yours very truly,



James F. O'Briant
Registered Professional
Engineer

attachments

cc

Ms. Shari Hamilton
Yates Energy Corporation
P. O. Box 2323
Roswell, New Mexico 88201

Mr. Mike Williams
Oil Conservation Division
P. O. Drawer DD
Artesia, New Mexico 88210

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

RECEIVED

SEP 28 1989

WELL API NO. 30-005-62716
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. L-6775
7. Lease Name or Unit Agreement Name Seymour State Com.
8. Well No. 2
9. Pool name or Wildcat Foor Ranch (Pre-Permian)
10. Elevation (Show whether DF, RKB, RT, GR, etc.) 3822.1 GL, 3834.10 KB

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A
DIFFERENT RESERVOIR. USE APPLICATION FOR PERMIT
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: OIL WELL <input type="checkbox"/> GAS WELL <input checked="" type="checkbox"/> OTHER	2. Name of Operator Yates Energy Corporation
3. Address of Operator P. O. Box 2323, Roswell, New Mexico 88202-2323	4. Well Location Unit Letter M : 1300 Feet From The West Line and 660 Feet From The South Line Section 18 Township 9S Range 27E NMPM Chaves County

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data	
NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
OTHER: Multiple Completion Procedure <input checked="" type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
Montoya & Abo Formations.	CASING TEST AND CEMENT JOB <input type="checkbox"/>
	OTHER: <input type="checkbox"/>

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

For completion procedure, see attached.

I hereby certify that the information above is true and complete to the best of my knowledge and belief.			
SIGNATURE	<i>James H. Bryant</i>	TITLE	Agent
		DATE	9/27/89
TYPE OR PRINT NAME		TELEPHONE NO.	

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

Mr. Fred Yates
YATES ENERGY CORPORATION
P. O. Box 2323
Roswell, New Mexico 88202-2323

September 20, 1989

Re: PROCEDURE AND COST ESTIMATE
Montoya & Abo Dual Completion
Seymour State Com. No. 2
Chaves County, New Mexico

Dear Mr. Yates:

The following completion procedure was prepared after discussions with you, Curt Anderson, Gene Printz, et al. Subject well is to be dually completed from the **Montoya Zones 6,012' - 6,040' & 6,050' - 6,052' KB** and **Abo Zones 4,918 - 4,922' & 4,926' - 4,939' KB**. Provision has been made to provide for isolation of the Lower zone from the Upper; either zone can be produced individually through the tubing or one through tubing and the other up the casing-tubing annulus. This procedure assumes that no major defects are found in the primary cement job.

General Procedure

1. Clear and level location; set anchors. Set a clean 500 bbl. frac tank for water storage; load with 300 bbls. 2% KCl water. Collect water sample, seal and tag for future analysis.
2. Move-in and rig up completion equipment and pipe racks. Unload, rack and tally appx. 6300' of new 2-3/8 inch, 4.7#/ft, J-55, EU, 8rd. tubing. Clean pin and box threads with a 50/50 mixture of chain or motor oil and diesel. Use Baker seal or equivalent pipe dope containing Teflon.
3. Complete installation of well head and lines from annulus. Remove liquid from cellar and fill with river gravel.
4. Rig-up 3000 psig manual BOP with 2-3/8" and blind rams. Close blind rams and pressure well head and BOP with 1500 psig.
5. Go in hole with 4-3/4" bit, four to six drill collars and tubing to DV tool. Rabbit each joint of tubing as it is picked-up with a swab "no-go"; close pipe rams and pressure test with 2000 psig. Drill DV tool; pressure test DV tool with 2000 psig.
6. Continue in hole with bit and clean out to PBD (6,209' KB).
7. Circulate 200 gallons of 15% HCl acid to bottom of tubing, reverse spent acid to pit to clean tubing of rust, etc.
8. Pull up hole to 6052' KB, displace hole with 2% KCl water and spot 250 gal. 10% acetic acid.
9. Pull out of hole, keep hole full; lay down bit and scraper.
10. Rig up electric line company. Run cement bond-PDC log through completion intervals and to determine the top of cement; assuming the cement bond is acceptable, continue as follows. (If not, repair as necessary, then continue with completion.)
11. Rig-up wireline BOP and pack-off; perforate **Montoya Zone(s) 6,012' - 6,040' (one shot per foot) & 6,050' - 6,052' KB (two shots per foot)**, top down, with a 3-3/8" premium deep penetrating charge.
12. Go in hole with a Baker Lok-set packer, four foot sub and "on-off" tool w/1.56" profile and balance of tubing to set packer at appx. 5950' KB (no subs required).
13. Reverse circulate with 6 bbls. 2% KCL water.

14. Space out and set packer; remove BOP and set well head (2-3/8" 8rd.); lay flow line to pit - **anchor securely without any swings or 90° "El's"**.
15. Displace acid with 7 bbls. 2% KCL water; **do not exceed 1300 psig while displacing acid without Mr. Fred Yates' (or Jim O'Briant's) approval.**
16. Swab and/flow to clean-up and test.
17. Acidize perforations with 4500 gallons of MOD 202 acid; pump in stages of 150 gallons of acid followed by one ball sealer; displace with 2% KCl water. All fluids to contain 1000 scf/nitrogen per bbl. **Use "Tree Saver".**
18. Flow back and test.
19. Rig-up slick line unit; run and set a plug in receptacle.
20. Blow pressure from tubing, load with 2% KCl water and remove well head; install BOP.
21. Pull out of hole with tubing and top section of "on-off" tool.
22. Go in hole with packer type RBP; set at 5,050' KB; close pipe rams and pressure test with 3000 psig.
23. Pull up hole with tubing and RBP setting tool to 4,939' KB.
24. Circulate 250 gallons of 10% acetic acid to spot.
25. POH with tubing and RBP setting tool.
Note: Keep hole full and have full opening safety valve (open) on floor at all times.
26. Rig up electric line company with wireline pack-off and BOP. Perforate **Abo zones** with a 3-3/8" premium deep penetrating charge gun from **4,918' to 4,922' & 4,926' to 4,939' KB** with 1 shot per foot, top down.
27. Go in hole with RBP setting tool, Baker Retrievmatic Packer and balance of tubing to set packer at appx. 4,870' KB (no subs required).
28. Reverse circulate with 6 bbls. 2% KCL water.
29. Space out and set packer; set well head on BOP; lay flow line to pit - **anchor securely without any swings or 90° "El's"**.
30. Displace acid with 7 bbls. 2% KCL water; **do not exceed 1000 psig while displacing acid without Mr. Fred Yates' (or Jim O'Briant's) approval.**
31. Swab and/flow to clean-up and test.
32. Acidize perforations with 2750 gallons of 7-1/2% MS acid; pump in stages of 150 gallons of acid followed by one ball sealer, displace with 2% KCl water. All fluids to contain 1000 scf/nitrogen per bbl. **Use "Tree Saver".**
33. Flow back and test.
Note: If BHP flow data are desired for this zone, set up and execute at this time.
34. Fracture treat perforations as per design based upon acid treatments and flow results; treatment may be down casing and/or tubing. **Use "Tree Saver" if treatment is down tubing.**
35. Flow back and test.
36. Kill well with 2% KCl water.
37. Release packer, go in hole and release RBP.
38. Pull out of hole with tubing, packer and RBP.
Note: Keep hole full and have full opening safety valve (open) on floor at all times.
39. Go in hole with general completion assembly as follows; all 2-3/8", EU, 8 rd. material.
 - Top section of "on-off" tool
 - Four foot tubing sub
 - Baker sliding sleeve (in open position)
 - Tubing and/or sub(s)
 - Blast joints across upper perforations (if required)
 - Balance of tubing and/or subs to space out to surface.*Note: Sleeve must be sized to allow passage of tools to "on-off" tool at packer.*

40. Land "on-off" top section; set 12,000# compression on packer.
41. Remove BOP, nipple-up well head.
42. Swab casing down to balance formation pressure..
43. Rig up slick line unit; pull plug from receptacle.
44. Swab casing and tubing to clean-up and test.
45. Rig up slick line unit; close sliding sleeve; tie casing and tubing into flow line with a surface check valve between.
46. Shut-in well for pressure build-up.
47. Run 4 point isochronal test of each zone using surface pressures only.
Note: If additional stimulation is required, do so at this time.
48. Install surface equipment based upon well test(s).

Please confirm that this procedure is in agreement with your plans and meets your producing and testing requirements.

Yours very truly,

James F. O'Briant
Registered Professional
Engineer

attachments
Well Data Sheet
Log section

O'BRIANT ENGINEERING

P.O. Box 10487

Midland, Texas 79702

915-683-5511

915-683-3172

RECEIVED

~~May 2, 1989~~

SEP 28 '89

September 27, 1989

Mr. Michael Stogner
Energy and Mineral Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

C. C. D.
ARTESIA, OFFICE

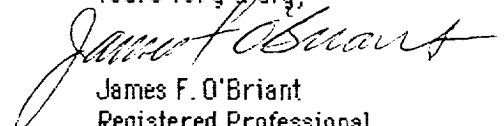
Re: DUAL COMPLETION PROCEDURE
Montoya and Abo Zones
Yates Energy Corporation
Seymour State Com. No. 2
Chaves County, New Mexico

Dear Mr. Stogner:

Yates Energy Corporation plans to dually complete the subject well from the Abo and Montoya formations. Production from off-set Abo wells is reported as dry gas, therefore, we are planning to complete the Montoya Zone via tubing and the Abo zone through the casing-tubing annulus and request your approval.

A copy of the completion procedure is attached to Form C-105 dated 9/26/89. Please advise if you need additional information.

Yours very truly,



James F. O'Briant
Registered Professional
Engineer

attachments

cc

Ms. Shari Hamilton
Yates Energy Corporation
P.O. Box 2323
Roswell, New Mexico 88201

Mr. Mike Williams
Oil Conservation Division
P.O. Drawer DD
Artesia, New Mexico 88210

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
100 N. Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87504-2088

SEP 28 '89

WELL API NO.

30-005-62716

5. Indicate Type of Lease

STATE ☒

FED ☐

6. State Oil & Gas Lease No.

L-6775

7. Lease Name or Unit Agreement Name

Seymour State Com.

8. Well No.

2

9. Pool name or Wildcat

Foor Ranch (Pre-Permian)

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN A WELL OR TO BACK TO A
DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT"
(FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:

OIL
WELL ☐

GAS
WELL ☒

OTHER

2. Name of Operator

Yates Energy Corporation

3. Address of Operator

P. O. Box 2323, Roswell, New Mexico 88202-2323

4. Well Location

Unit Letter M : 1300 Feet From The West Line and 660 Feet From The South Line

Section 18

Township 9S

Range 27E

NMPM Chaves

County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)

3822.1 GL, 3834.10 KB

11.

Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐

PLUG AND ABANDON ☐

TEMPORARILY ABANDON ☐

CHANGE PLANS ☐

PULL OR ALTER CASING ☐

OTHER: Multiple Completion Procedure

Montoya & Abo Formations.

☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐

ALTERING CASING ☐

COMMENCE DRILLING OPNS. ☐

PLUG AND ABANDONMENT ☐

CASING TEST AND CEMENT JOB ☐

OTHER: ☐

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

For completion procedure, see attached.

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

SIGNATURE

TITLE

Agent

DATE

9/27/89

TYPE OR PRINT NAME

TELEPHONE NO.

(This space for State Use)

APPROVED BY

TITLE

DATE

CONDITIONS OF APPROVAL, IF ANY:

Mr. Fred Yates
YATES ENERGY CORPORATION
P. O. Box 2323
Roswell, New Mexico 88202-2323

September 20, 1989

Re: PROCEDURE AND COST ESTIMATE
Montoya & Abo Dual Completion
Seymour State Com. No. 2
Chaves County, New Mexico

Dear Mr. Yates:

The following completion procedure was prepared after discussions with you, Curt Anderson, Gene Printz, et al. Subject well is to be dually completed from the **Montoya Zones 6,012' - 6,040' & 6,050' - 6,052' KB** and **Abo Zones 4,918 - 4,922' & 4,926' - 4,939' KB**. Provision has been made to provide for isolation of the Lower zone from the Upper; either zone can be produced individually through the tubing or one through tubing and the other up the casing-tubing annulus. This procedure assumes that no major defects are found in the primary cement job.

General Procedure

1. Clear and level location; set anchors. Set a clean 500 bbl. frac tank for water storage; load with 300 bbls. 2% KCl water. Collect water sample, seal and tag for future analysis.
2. Move-in and rig up completion equipment and pipe racks. Unload, rack and tally appx. 6300' of new 2-3/8 inch, 4.7#/ft, J-55, EU, 8rd. tubing. Clean pin and box threads with a 50/50 mixture of chain or motor oil and diesel. Use Baker seal or equivalent pipe dope containing Teflon.
3. Complete installation of well head and lines from annulus. Remove liquid from cellar and fill with river gravel.
4. Rig-up 3000 psig manual BOP with 2-3/8" and blind rams. Close blind rams and pressure well head and BOP with 1500 psig.
5. Go in hole with 4-3/4" bit, four to six drill collars and tubing to DV tool. Rabbit each joint of tubing as it is picked-up with a swab "no-go"; close pipe rams and pressure test with 2000 psig. Drill DV tool; pressure test DV tool with 2000 psig.
6. Continue in hole with bit and clean out to PBD (6,209' KB).
7. Circulate 200 gallons of 15% HCl acid to bottom of tubing, reverse spent acid to pit to clean tubing of rust, etc.
8. Pull up hole to 6052' KB, displace hole with 2% KCl water and spot 250 gal. 10% acetic acid.
9. Pull out of hole, keep hole full; lay down bit and scraper.
10. Rig up electric line company. Run cement bond-PDC log through completion intervals and to determine the top of cement; assuming the cement bond is acceptable, continue as follows. (If not, repair as necessary, then continue with completion.)
11. Rig-up wireline BOP and pack-off; perforate **Montoya Zone(s) 6,012' - 6,040' (one shot per foot) & 6,050' - 6,052' KB (two shots per foot)**, top down, with a 3-3/8" premium deep penetrating charge.
12. Go in hole with a Baker Lok-set packer, four foot sub and "on-off" tool w/1.56" profile and balance of tubing to set packer at appx. 5950' KB (no subs required).
13. Reverse circulate with 6 bbls. 2% KCl water.

14. Space out and set packer; remove BOP and set well head (2-3/8" 8rd.); lay flow line to pit - **anchor securely without any swings or 90° "El's"**.
15. Displace acid with 7 bbls. 2% KCl water; **do not exceed 1300 psig while displacing acid without Mr. Fred Yates' (or Jim O'Briant's) approval.**
16. Swab and/flow to clean-up and test.
17. Acidize perforations with 4500 gallons of MDD 202 acid; pump in stages of 150 gallons of acid followed by one ball sealer; displace with 2% KCl water. All fluids to contain 1000 scf/nitrogen per bbl. **Use "Tree Saver".**
18. Flow back and test.
19. Rig-up slick line unit; run and set a plug in receptacle.
20. Blow pressure from tubing, load with 2% KCl water and remove well head; install BOP.
21. Pull out of hole with tubing and top section of "on-off" tool.
22. Go in hole with packer type RBP; set at 5,050' KB; close pipe rams and pressure test with 3000 psig.
23. Pull up hole with tubing and RBP setting tool to 4,939' KB.
24. Circulate 250 gallons of 10% acetic acid to spot.
25. PDH with tubing and RBP setting tool.
Note: Keep hole full and have full opening safety valve (open) on floor at all times.
26. Rig up electric line company with wireline pack-off and BOP. Perforate **Abo zones** with a 3-3/8" premium deep penetrating charge gun from **4,918' to 4,922' & 4,926' to 4,939' KB** with 1 shot per foot, top down.
27. Go in hole with RBP setting tool, Baker Retrievmatic Packer and balance of tubing to set packer at appx. 4,870' KB (no subs required).
28. Reverse circulate with 6 bbls. 2% KCl water.
29. Space out and set packer; set well head on BOP; lay flow line to pit - **anchor securely without any swings or 90° "El's"**.
30. Displace acid with 7 bbls. 2% KCl water; **do not exceed 1000 psig while displacing acid without Mr. Fred Yates' (or Jim O'Briant's) approval.**
31. Swab and/flow to clean-up and test.
32. Acidize perforations with 2750 gallons of 7-1/2% MS acid; pump in stages of 150 gallons of acid followed by one ball sealer; displace with 2% KCl water. All fluids to contain 1000 scf/nitrogen per bbl. **Use "Tree Saver".**
33. Flow back and test.
Note: If BHP flow data are desired for this zone, set up and execute at this time.
34. Fracture treat perforations as per design based upon acid treatments and flow results; treatment may be down casing and/or tubing. **Use "Tree Saver" if treatment is down tubing.**
35. Flow back and test.
36. Kill well with 2% KCl water.
37. Release packer, go in hole and release RBP.
38. Pull out of hole with tubing, packer and RBP.
Note: Keep hole full and have full opening safety valve (open) on floor at all times.
39. Go in hole with general completion assembly as follows; all 2-3/8", EU, 8 rd. material.
 - Top section of "on-off" tool
 - Four foot tubing sub
 - Baker sliding sleeve (in open position)
 - Tubing and/or sub(s)
 - Blast joints across upper perforations (if required)
 - Balance of tubing and/or subs to space out to surface.*Note: Sleeve must be sized to allow passage of tools to "on-off" tool at packer.*

40. Land "on-off" top section; set 12,000# compression on packer.
41. Remove BOP, nipple-up well head.
42. Swab casing down to balance formation pressure..
43. Rig up slick line unit; pull plug from receptacle.
44. Swab casing and tubing to clean-up and test.
45. Rig up slick line unit; close sliding sleeve; tie casing and tubing into flow line with a surface check valve between.
46. Shut-in well for pressure build-up.
47. Run 4 point isochronal test of each zone using surface pressures only.
Note: If additional stimulation is required, do so at this time.
48. Install surface equipment based upon well test(s).

Please confirm that this procedure is in agreement with your plans and meets your producing and testing requirements.

Yours very truly,

James F. O'Briant
Registered Professional
Engineer

attachments
Well Data Sheet
Log section

O'BRIANT ENGINEERING

P.O. Box 10487

Midland, Texas 79702

915-683-5511
915-683-3172

RECEIVED

Mr. Michael Stogner
Energy and Mineral Department
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87501

SEP 25 1989

May 2, 1989

September 27, 1989

RECEIVED

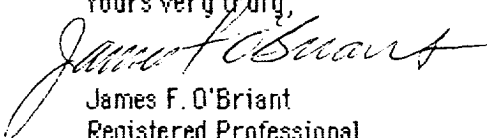
Re: DUAL COMPLETION PROCEDURE
Montoya and Abo Zones
Yates Energy Corporation
Seymour State Com. No. 2
Chaves County, New Mexico

Dear Mr. Stogner:

Yates Energy Corporation plans to dually complete the subject well from the Abo and Montoya formations. Production from off-set Abo wells is reported as dry gas, therefore, we are planning to complete the Montoya Zone via tubing and the Abo zone through the casing-tubing annulus and request your approval.

A copy of the completion procedure is attached to Form C-105 dated 9/26/89. Please advise if you need additional information.

Yours very truly,



James F. O'Briant
Registered Professional
Engineer

attachments

cc
Ms. Shari Hamilton
Yates Energy Corporation
P.O. Box 2323
Roswell, New Mexico 88201

Mr. Mike Williams
Oil Conservation Division
P.O. Drawer DD
Artesia, New Mexico 88210

Submit 3 Copies
to Appropriate
District Office

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-103
Revised 1-1-89

DISTRICT I
P.O. Box 1980, Hobbs, NM 88240

DISTRICT II
P.O. Drawer DD, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, New Mexico 87508

RECEIVED

SEP 28 '89

WELL API NO. 30-005-62716
5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
6. State Oil & Gas Lease No. L-6775
7. Lease Name or Unit Agreement Name Seymour State Com.
8. Well No. 2
9. Pool name or Wildcat Foor Ranch (Pre-Permian)
10. Elevation (Show whether DF, RKB, RT, GR, etc.) 3822.1 GL, 3834.10 KB

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well:
OIL WELL ☐ GAS WELL ☒ OTHER

2. Name of Operator
Yates Energy Corporation

3. Address of Operator
P. O. Box 2323, Roswell, New Mexico 88202-2323

4. Well Location
Unit Letter M : 1300 Feet From The West Line and 660 Feet From The South Line
Section 18 Township 9S Range 27E NMPM Chaves County

10. Elevation (Show whether DF, RKB, RT, GR, etc.)
3822.1 GL, 3834.10 KB

11. Check Appropriate Box to Indicate Nature of Notice, Report, or Other Data

NOTICE OF INTENTION TO:	SUBSEQUENT REPORT OF:
PERFORM REMEDIAL WORK <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>
OTHER: Multiple Completion Procedure <input checked="" type="checkbox"/>	PLUG AND ABANDONMENT <input type="checkbox"/>
Montoya & Abo Formations. <input checked="" type="checkbox"/>	CASING TEST AND CEMENT JOB <input type="checkbox"/>
	OTHER: <input type="checkbox"/>

12. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work) SEE RULE 1103.

For completion procedure, see attached.

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

SIGNATURE James H. Brown TITLE Agent DATE 9/27/89
TYPE OR PRINT NAME _____ TELEPHONE NO. _____

(This space for State Use)

APPROVED BY _____ TITLE _____ DATE _____

CONDITIONS OF APPROVAL, IF ANY:

Mr. Fred Yates
YATES ENERGY CORPORATION
P. O. Box 2323
Roswell, New Mexico 88202-2323

September 20, 1989

Re: PROCEDURE AND COST ESTIMATE
Montoya & Abo Dual Completion
Seymour State Com. No. 2
Chaves County, New Mexico

Dear Mr. Yates:

The following completion procedure was prepared after discussions with you, Curt Anderson, Gene Printz, et al. Subject well is to be dually completed from the **Montoya Zones 6,012' - 6,040' & 6,050' - 6,052' KB** and **Abo Zones 4,918 - 4,922' & 4,926' - 4,939' KB**. Provision has been made to provide for isolation of the Lower zone from the Upper; either zone can be produced individually through the tubing or one through tubing and the other up the casing-tubing annulus. This procedure assumes that no major defects are found in the primary cement job.

General Procedure

1. Clear and level location; set anchors. Set a clean 500 bbl. frac tank for water storage; load with 300 bbls. 2% KCl water. Collect water sample, seal and tag for future analysis.
2. Move-in and rig up completion equipment and pipe racks. Unload, rack and tally appx. 6300' of new 2-3/8 inch, 4.7#/ft, J-55, EU, 8rd. tubing. Clean pin and box threads with a 50/50 mixture of chain or motor oil and diesel. Use Baker seal or equivalent pipe dope containing Teflon.
3. Complete installation of well head and lines from annulus. Remove liquid from cellar and fill with river gravel.
4. Rig-up 3000 psig manual BOP with 2-3/8" and blind rams. Close blind rams and pressure well head and BOP with 1500 psig.
5. Go in hole with 4-3/4" bit, four to six drill collars and tubing to DY tool. Rabbit each joint of tubing as it is picked-up with a swab "no-go"; close pipe rams and pressure test with 2000 psig. Drill DY tool; pressure test DY tool with 2000 psig.
6. Continue in hole with bit and clean out to PBD (6,209' KB).
7. Circulate 200 gallons of 15% HCl acid to bottom of tubing, reverse spent acid to pit to clean tubing of rust, etc.
8. Pull up hole to 6052' KB, displace hole with 2% KCl water and spot 250 gal. 10% acetic acid.
9. Pull out of hole, keep hole full; lay down bit and scraper.
10. Rig up electric line company. Run cement bond-PDC log through completion intervals and to determine the top of cement; assuming the cement bond is acceptable, continue as follows. (If not, repair as necessary, then continue with completion.)
11. Rig-up wireline BOP and pack-off; perforate **Montoya Zone(s) 6,012' - 6,040'** (one shot per foot) **& 6,050' - 6,052' KB** (two shots per foot), top down, with a 3-3/8" premium deep penetrating charge.
12. Go in hole with a Baker Lok-set packer, four foot sub and "on-off" tool w/1.56" profile and balance of tubing to set packer at appx. 5950' KB (no subs required).
13. Reverse circulate with 6 bbls. 2% KCL water.

14. Space out and set packer; remove BOP and set well head (2-3/8" 8rd.); lay flow line to pit - **anchor securely without any swings or 90° "El's"**.
15. Displace acid with 7 bbls. 2% KCL water; **do not exceed 1300 psig while displacing acid without Mr. Fred Yates' (or Jim O'Briant's) approval.**
16. Swab and/flow to clean-up and test.
17. Acidize perforations with 4500 gallons of MDD 202 acid; pump in stages of 150 gallons of acid followed by one ball sealer; displace with 2% KCl water. All fluids to contain 1000 scf/nitrogen per bbl. **Use "Tree Saver"**.
18. Flow back and test.
19. Rig-up slick line unit; run and set a plug in receptacle.
20. Blow pressure from tubing, load with 2% KCl water and remove well head; install BOP.
21. Pull out of hole with tubing and top section of "on-off" tool.
22. Go in hole with packer type RBP; set at 5,050' KB; close pipe rams and pressure test with 3000 psig.
23. Pull up hole with tubing and RBP setting tool to 4,939' KB.
24. Circulate 250 gallons of 10% acetic acid to spot.
25. PDH with tubing and RBP setting tool.
Note: Keep hole full and have full opening safety valve (open) on floor at all times.
26. Rig up electric line company with wireline pack-off and BOP. Perforate **Abo zones** with a 3-3/8" premium deep penetrating charge gun from **4,918' to 4,922' & 4,926' to 4,939' KB** with 1 shot per foot, top down.
27. Go in hole with RBP setting tool, Baker Retrievmatic Packer and balance of tubing to set packer at appx. 4,870' KB (no subs required).
28. Reverse circulate with 6 bbls. 2% KCL water.
29. Space out and set packer; set well head on BOP; lay flow line to pit - **anchor securely without any swings or 90° "El's"**.
30. Displace acid with 7 bbls. 2% KCL water; **do not exceed 1000 psig while displacing acid without Mr. Fred Yates' (or Jim O'Briant's) approval.**
31. Swab and/flow to clean-up and test.
32. Acidize perforations with 2750 gallons of 7-1/2% MS acid; pump in stages of 150 gallons of acid followed by one ball sealer; displace with 2% KCl water. All fluids to contain 1000 scf/nitrogen per bbl. **Use "Tree Saver"**.
33. Flow back and test.
Note: If BHP flow data are desired for this zone, set up and execute at this time.
34. Fracture treat perforations as per design based upon acid treatments and flow results; treatment may be down casing and/or tubing. **Use "Tree Saver" if treatment is down tubing.**
35. Flow back and test.
36. Kill well with 2% KCl water.
37. Release packer, go in hole and release RBP.
38. Pull out of hole with tubing, packer and RBP.
Note: Keep hole full and have full opening safety valve (open) on floor at all times.
39. Go in hole with general completion assembly as follows; all 2-3/8", EU, 8 rd. material.
 - Top section of "on-off" tool
 - Four foot tubing sub
 - Baker sliding sleeve (in open position)
 - Tubing and/or sub(s)
 - Blast joints across upper perforations (if required)
 - Balance of tubing and/or subs to space out to surface.*Note: Sleeve must be sized to allow passage of tools to "on-off" tool at packer.*

40. Land "on-off" top section; set 12,000# compression on packer.
41. Remove BOP, nipple-up well head.
42. Swab casing down to balance formation pressure..
43. Rig up slick line unit; pull plug from receptacle.
44. Swab casing and tubing to clean-up and test.
45. Rig up slick line unit; close sliding sleeve; tie casing and tubing into flow line with a surface check valve between.
46. Shut-in well for pressure build-up.
47. Run 4 point isochronal test of each zone using surface pressures only.
Note: If additional stimulation is required, do so at this time.
48. Install surface equipment based upon well test(s).

Please confirm that this procedure is in agreement with your plans and meets your producing and testing requirements.

Yours very truly,

James F. O'Briant
Registered Professional
Engineer

attachments
Well Data Sheet
Log section