UNITED STATES FORM APPROVED DEPARTMENT OF THE INTERIOR Budget Bureau No. 1004-0135 Form 3180-5 BUREAU OF LAND MANAGEMENT Expires March 31, 1993 (June 1990) 5. Lease Designation and Serial No. SUNDRY NOTICES AND REPORTS ON WELLS Do not use this form for proposals to drill or to deepen or reentry to a different reservoir NMNM-18327 Use "APPLICATION FOR PERMIT -" for such proposals 6. If Indian, Allottee or Tribe Name SUBMIT IN TRIPLICATE 7. If Unit or CA, Agreement Designation 1. Type of Well Oil Well Gas Well Other 8. Well Name and No. 2. Name of Operator 29-4 Carson 28 # 1 Synergy Operating, LLC 9. API Well No. 3. Address and Telephone No. (505) 325-5449 30-039-2467300 PO Box 5513 Farmington, NM 87499 10. Field and Pool, or Exploratory 4. Location of Well (Footage, Sec, T. R., M, or Survey Description) Wildcat NACIMIENTO (GAS) 1905' FSL & 1604' FWL Sec 28, T29N, R04W 11. County or Parish, State Rio Arriba County **New Mexico** 12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA TYPE OF ACTION TYPE OF SUBMISSION Notice of Intent Abandoment Change of Plans Recompletion **New Construction** Subsequent Report Plugging Back Non-Routine Fracturing Casing Repair Water Shut-Off Final Abandonment Notice Altering Casing Converion to Injection Dispose Water (Note: Report results of multiple completion on Well Completion or recompletion Report and Log Form) 13. Describe Proposed or Completed Operations (Clearly state all pertinent details, and give pertinent dates, including, estimated date of starting work. If well is directionally drilled give subsurface locations and measured and true vertical depths for all markers and zones of pertinent to this work. SYNERGY OPERATING, LLC REQUESTS TIGHT HOLE STATUS (CONFIDENTIAL STATUS) OF THIS INFORMATION FOR A PERIOD OF ONE (1) YEAR. SYNERGY OPERATING, LLC WILL ATTEMPT TO RESTORE PRODUCTION FROM THE NACIMIENTO FORMATION. IF WE ARE UNSUCCESSFUL IN COMPLETING THE NACIMIENTO, THEN WE WILL MOVE UP HOLE AND TEST THE SAN JOSE FORMATION. PLEASE REFERENCE THE ATTACHED PROCEDURE AND WELLBORE DIAGRAM INFORMATION. AGAIN, SYNERGY REQUESTS TIGHT HOLE STATUS OF THIS INFORMATION FOR A PERIOD OF ONE (1) YEAR 14. I hereby certify that the foregoing is true and c Signed: **Engineering Manager** Thomas E. Mullins

Title 18 U.S.C. Section 1001, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, ficticious, or fraudulent statements or representations as to any matter within its jurisdiction

This space for federal or state office use

Approved by:

Conditions of approval if any

Title:

## Carson 29-4 28 # 1

Unit K, Section 28 – T29N – R04W 1905' FSL, 1604' FWL

## SYNERGY OPERATING, LLC

Nacimiento and San Jose Completion Procedure

Notes:

3000 psi Wellhead

5-1/2" 17# N-80 Casing (Burst 6190 psi @ 80%, Collapse 5025 psi @ 80%)

2-7/8" 6.5# EUE J-55 Tubing at 2901' KB (Burst 5800 @ 80%, Collapse 6140 @ 80%

2"x 1-1/4" Pump & 113 - 7/8" Rods

PBTD currently at 2928' KB w/ CIBP

Perfs shot (Not Broken Down) @ 2609'(2), 2614'(2), 2736'(2), 2741'(2), 2851', 2852', 2853'(2),

2854', 2876', 2877'(3), 2878', 2879', 2880'(3), 2881 Total Holes Shot = 23

Two-Squeeze Holes @ 1560'.

- 1) Verify that Anchors have not been removed. All four (4) found and marked in June 2000.
- 2) Call NM One Call (Complete Faxed Form) and have Williams & Synergy note where all pipelines run.
- Bring in Roustabout Crew/Backhoe, L&R Oilfield Services. Clean-up location, knock down weeds & brush. Adjust where the bar ditch from the road cuts across location, so that the rig can easily get set-up. Repair Flowline on tank battery. Bring Flowback lines and manifold with rousabout crew. RU lines to the pit, and casing. L&R Oilfield Services.
- 4) With Backhoe, dig, fence, and line, a small workover pit with the following dimensions (8 feet deep, 12 feet wide, 12 feet in length).
- Work lockdown pins on tubing hanger, to ensure that they will backout easily. Unplug all valves. Obtain shut-in pressures on the tubing, casing, and bradenhead valves. Check the wellhead on the 29-4 28 # 3. Obtain pressures on the tubing, casing, and bradenhead valves of this well.
- 6) Notify Carson Forest Service Personnel (632-2956), and BLM (599-8907) (24 hours prior to starting operations.
- 7) MIRU Workover rig. ND beam pumping head. RU to pull 7/8" rods
- 8) Blow down casing to the pit.
- 9) RU to pull and lay down polish rod and 113 7/8" rods (25' in length). Lay rods down on boards to the side of the pumping unit. Pump down tubing if necessary to kill the well. Lay the pump down as well. Pump is a 2"x 1-1/4" pump (Assumed Top Hold Down)? Contact Pump Company for Lining up Credit.
- 10) Kill tubing with 10 bbls water, note if casing circulates.
- 11) ND WH. NU BOPE. Test operation of BOPE. Ensure that pipe rams, slips, and elevators are available to pull 2-7/8" 6.5# EUE tubing.
- 12) Unseat tubing hanger, inspect rubber, check for BPV receptacle.
- 13) PU 1 Jt of 2-7/8" 6.5# J-55 Tubing. GIH and tag fill or CIBP @ 2928'. LD 4 Jts (3 old + 1 New).
- 14) COOH and tally the total 95 Joints of 2-7/8" 6.5# J-55 Tubing from 2901' KB. Common SN (2.31" ID) one jt off btm.
- 15) RU Blue Jet, Inc. RU Pack-off. RIH w/ 5-1/2" 17# gauge ring. POOH.

TIGHT HOLE

- 16) RIH w/ 5-1/2" 17# CIBP. Set CIBP @ 2820'. Correlate setting depth with Halliburton GR-CCL-CBL run 10/25/95. This plug will isolate fifteen (15) holes from 2851' to 2880'. POOH w/ setting tool. RIH w/ 3-1/8" dump bailer. Mix and dump bail 5 sxs of cement on top of the CIBP. POOH.
- 17) Close blind rams. With Rig Pump. Test 5-1/2" Casing and 2 Squeeze Holes (1560'), and remaining eight (8) unbroken down perforations 2609' to 2741' to 750 psi with the rig pump, hold for 30 mins. (4.892" ID) Casing Capacity = 65.55 bbls. Witness Pressure Test for BLM
- 18) Bleed Off Pressure. Open Blind Rams.
- Blue Jet, Inc. RIH with 3-1/8" HSC gun (Owen 302 Charges 0.36" dia hole), shoot two six foot guns 2 SPF, in one gun run. Perforate Nacimiento Perforations at **2724' to 2730'** (6' 12 holes) and **2602' to 2608'** (6' 12 holes) Total of 24 new perforations and 8 existing: 32 TOTAL. With the rig pump, place 500 psi pressure on the casing prior to perforating the first setting.
- 20) RD and release Blue Jet.
- PU Baker Lockset 5-1/2" 17# Packer on 2-7/8" tubing. Run in the hole and set the PKR @ 2775'. Have a 10' 2-7/8" tubing sub on location to assist in the spacing of the tubing.
- RU BJ Services Acid Frac and Nitrogen Pump. TOTAL ACID IS 500 GALLONS OF 10% Acetic, w/ inhibitors. Install BJ valve on top of tubing. Test BJ Services Lines to 6000 psi. Load the tubing and test the packer, tubing and the CIBP to 4000 psi. Bleed off the pressure. Release the PKR. Pull the PKR up and reset the PKR @ 2650'+/-. Breakdown the 12 new and 4 existing perforations from 2724' to 2741' with 2% KCl water and 250 gallons acetic acid. Breakdown zone on water to start. Pump 5 bbls @ 4 BPM, SD, record ISIP. Pump 250 gallons (6 bbls), dropping 1 ball per bbl of acid, then dropping 19 ball sealers in the first 6 bbls of displacement. Displacement down just the 2-7/8" tubing is 15.5 bbls. Pump at maximum rate and pressure. Ball off interval to 4000 psi. Surge balls off perforations. Displace acid with 5 additional bbls water. SD & record ISIP.
- Bleed off. Release PKR. Pull PKR up and reset PKR @ 2500'+/-. Install BJ valve on top of tubing. Test BJ Services Lines to 6000 psi. Breakdown the 24 new and 8 existing perforations from 2602' to 2609' and 2724' to 2741' with 2% KCl water and 250 gallons acetic acid. Breakdown zone on water to start. Pump 5 bbls @ 4 BPM, SD, record ISIP. Pump 250 gallons (6 bbls), dropping 1 ball per bbl of acid, then dropping 19 ball sealers in the first 6 bbls of displacement. Displacement down just the 2-7/8" tubing is 14.5 bbls. Pump at maximum rate and pressure. Ball off interval to 4000 psi. Surge balls off perforations. Displace acid with 5 additional bbls water. SD & record ISIP.
- PKR up and reset the PKR at 2500'. ND Top Tubing Collar. RU 2-9/16" 5000 psi threaded frac Valve on top of the tubing. RU BJ Services Valve on top of 5000 psi frac Valve. RU BJ Services Frac Y on top of Frac Head. Load Annulus with water, until full. Test with Rig pump to 250 psi.
- Prepare to Frac Nacimiento Intervals with 2 Acid Fracs, and 2 Nitrogen Pumps. Roll 12 Gallons Flowback 20, 35 Gallons Foamer, and 1 Sack Guar Gel into Frac Tank containing 250 bbls of water. Test Frac Lines to 6000 psi, against BJ Valve, Test 5000 psi against Synergy Valve. Maximum Treating Pressure to be 4500 psi. Install check valve on N2 line and Liquid Line.
- Pump Acid Frac Nitrogen Foam Job at 5 BPM Liquid, 7500 scfm, 75 Quality Nitrogen Foam, Total Rate 20 BPM. Run Sand Smoothly using Buckets Acid Frac Tub, Use Tub Closest to the Wellhead. Flush with Foam. Total Sand 2000 lbs 20/40. 180 bbls Gel Water, 270,000 SCF Nitrogen. SD from Frac Job. Record ISIP.
- 27) Close BJ Valve, then Synergy Valve. Bleed Off Pressure. RD BJ Services.

TIGHT

- RU Flowback Line with Tees to Flowback Manifold. Ensure Pressure Gauge is in Manifold, and that a Single 3000 psi Ball Valve in off the Wing. Open Pressure to Manifold, and record pressure. Begin Flowback on 2" Line, with ¼" Choke, for 6 Hours. Switch to ½" Choke and continue Flowback.
- 29) Synergy will evaluate results of this flow test before proceeding. Expect 2 Days of Downtime.
- 30) Obtain Water Sample, and Gas Sample from Manifold Outlet. Send Gas Sample to Gas Analysis for Evaluation. Close-In Well. Record Shut-in Pressures.
- 31) RU to Kill Tubing. ND Valve, Install Tubing Collar. Paint Top of Joint so that It will not be used again for a Frac. Release PKR. LD Top Joint of 2-7/8".
- 32) COOH with PKR and Tubing.
- 33) RU Blue Jet, Inc. with Pack-Off.
- 34) RIH with Wireline Set 5-1/2" 17# CIBP. Set CIBP @ 2500'. POOH.
- 35) RIH with Dump Bailer, and dump bail 2 sxs of cement on top of retainer @ 2500'.
- Fill Hole from Surface with Rig Pump. Test CIBP, and Casing to 750 psi. Hold Pressure 30 for Witnessed State test. Bleed off pressure.
- 37) RIH with 3-1/8" HSC perforating Guns, two (2) Six foot guns @ 2 SPF 120 deg phase. Perforate San Jose Formation as follows. Correlate setting depth with Halliburton GR-CCL-CBL run 10/25/95. 1906' to 1912' (6' 12 holes), and 1922' to 1928' (6' 12 holes). Total of 24 holes. POOH with guns. Place 500 psi on casing prior to firing first perforating gun.
- 38) PU Baker 5-1/2" Lockset Packer. GIH on 2-7/8" tubing. Set PKR @ 1700'.
- 39) RU BJ Services to Acidize and Breakdown San Jose Formation. Use Acid Frac and 300 gallons of 10% Acetic Acid with inhibitors. Run 40 7/8" 1.3 SG ball sealers during Acid. Breakdown perforations on water. Maximum Pressure is 5000 psi. Establish rate into holes. SD record ISIP. Pump acid and ball sealers. Ball-Off perforations. SD. Bleed off Pressure. Displace Acid into perforations.
- Release PKR. GIH and knock ball sealers past perforations. Pull PKR up to 1700'. Pump 10 bbls of water down annulus to displace any acid on backside of PKR. Set PKR @ 1700'.
- ND Top Tubing Collar. RU 2-9/16" 5000 psi threaded frac Valve on top of the tubing. RU BJ Services Valve on top of 5000 psi frac Valve. RU BJ Services Frac Y on top of Frac Head. Load Annulus with water, until full. Test with Rig pump to 250 psi.
- Prepare to Frac San Jose Interval with 2 Acid Fracs, and 2 Nitrogen Pumps. Roll 12 Gallons Flowback 20, 35 Gallons Foamer, and 1 Sack Guar Gel into Frac Tank containing 250 bbls of water. Test Frac Lines to 6000 psi, against BJ Valve, Test 5000 psi against Synergy Valve. Maximum Treating Pressure to be 4500 psi. Install check valve on N2 line and Liquid Line.
- Pump Acid Frac Nitrogen Foam Job at 5 BPM Liquid, 7500 scfm, 75 Quality Nitrogen Foam, Total Rate 20 BPM. Run Sand Smoothly using Buckets Acid Frac Tub, Use Tub Closest to the Wellhead. Flush with Foam. Total Sand 2000 lbs 20/40. 180 bbls Gel Water, 270,000 SCF Nitrogen. SD from Frac Job. Record ISIP.
- 44) Close BJ Valve, then Synergy Valve. Bleed Off Pressure. RD BJ Services.
- RU Flowback Line with Tees to Flowback Manifold. Ensure Pressure Gauge is in Manifold, and that a Single 3000 psi Ball Valve in off the Wing. Open Pressure to Manifold, and record pressure. Begin Flowback on 2" Line, with ¼" Choke, for 6 Hours. Switch to ½" Choke and continue Flowback.
- 46) Synergy will evaluate results of this flow test before proceeding.
- Obtain Water Sample, and Gas Sample from Manifold Outlet. Send Gas Sample to Gas Analysis for Evaluation. Close-In Well. Record Shut-in Pressures.
- 48) RU to Kill Tubing. ND Valve, Install Tubing Collar. Paint Top of Joint so that It will not be used again for a Frac. Release PKR. LD Top Joint of 2-7/8".
- 49) COOH with PKR and Tubing.

TIGHT

RIH with expendable check on 2-7/8" production tubing, 1 jt 2-7/8", 2-7/8" F-nipple (2.25" ID), and remaining tubing. GIH and tag sand fill. Land EOT @ 1900'.

Ensure tubing hanger is threaded for a BPV receptacle. ND BOPE. NU 3000# threaded bonnet, and screw threaded 2-9/16" Frac valve from earlier on top as master valve.

52) Secure Well location.

53) RD and release rig to next Synergy Location.

Name

**Contact Numbers** 

Tom Mullins

325-6561 office, 320-1751 - mobile, 327-8692 - pager

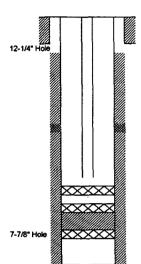
TIGHT HOLE Carson 29-4 28 # 1

Carson 29-4 28 # 1 Unit K, Section 28-T29N-R04W 1905' FSL, 1604' FWL 7401 GL 13 KB

Araphoe # 7 Bayless Rig # 6

Spud: 07/21/90 Completed: 11/7/90

API#30-039-2467300



8-5/8" 24# K-55 Casing @ 259' w/ 210 exs Circulated 5 bbls cement to surface Cement Fell Back, Cmt 30 sxs down annulus

2-7/8" 6.5# J-55 Tubing @ 2901', SN one jt up (95 jts) 2" x 1-1/4" Pump & 113 -7/8" Rods

2 Sqz Holes @ 1560', Cemented w/ 300 sxs. TOC Temp Survey 500'+/-

DV Tool & 2033' (See Cmt Detail Below)

CIBP @ 2928' Cmt Retainer @ 3520' (Cmt from 3515' to 3613') CIBP @ 3700 CIBP 62 4000

Nacimiento Perforations Open Perfs from 2609' to 2880'

Fruitland Coal Perforations

Upper: 4086'-4088', 4130'-4139' (10 Holes) Frac w/ 10K 40/70 & 11K 20/40 in 70Q N2 Foam (Screen Out) Lower: 4164'-4190' (18 Holes) Frac w/ 20K 40/70 & 120K 20/40 in 70Q N2 Foam

5-1/2" 17# N-80 Casing @ 4496", w/ 1st Stage w/ 200 exe 50/50 Poz 2% gel 0.6% Halad 322 tail with 225 exe B w/ 0.4% Halad 344, 0.4% CFR-3 & 2% Super CBL Circulate 3 hrs, 2nd Stage w/ 350 exe Howco Lite 0.6% Halad 322, 2% KCl and 1/4# Flocel, tail with 50 sxs B neat. Lost Circulation 28 bbls into Displacement.

Formation Tops San Jose Oio Alamo 3642 Kirtland Fruitland 3980 Pict Cliffs 4197 Formation Name: Fruitland Coal

Drill out DV Tool, CO to PBTD 4456', RU Basin, Run GR-CCL-CBL 4438' to 1800'. Spot 7-1/2% HCl acid across Coal zone. Perforate 4164', 4166', 4167', 4168', 4170', 4171', 4172', 4176', 4178', 4179', 4181', 4182', 4183', 4184', 4185', 4186', 4189', 4190' (18 holes) -0.38'. Opened well the next AM, Hydrocarbons unloaded to the pit and caught fire, burned off. GIH w/ SPIT tool, set across each perf and establish communication on all. Set tool @ 4116', RU to swab. Making Gas after 5th run. COOH w/ tool. RU to Frac. Smith Energy Frac Lower Coal w/ 20K 40/70 sand & 120K 20/40 sand in 70Q N2 at 45-55 BPM 2600 ATP, ISIP 1600 Foam Flush, SI 2-hrs flowback on 1/4" choke w/ 20K 40/70 sand & 120K 20/40 sand in 70Q N2 at 45-55 BPM 2600 A1 P, ISIP 1600 Foam Hush, S1 2-hrs flowback on 1/4" choke
Well making 5% Parraffin, Tag Sand Fill @ 4390", CO fill. RU Basin, Set 5-1/2" RBP @ 4150", PT 3000 psi Okay. Gil Hand Spot 7-1/2% HCI
Acid across Upper Coal perforations. Perforate Upper Coal Interval at 4087", 4088", 4130", 4131", 4132", 4133", 4134", 4137", 4138", 4139" (10 Holes)
Break down perfs w/ SPIT tool, All Open, Set tool @ 4020", RU to swab. Recover Spent Acid, Parriffin, & Water, w/ good Gas Flow.
SITP = 1020 psi, COOH w/ tool. RU Smith Energy to Frac Upper Coal. Frac w/ 10K 40/70 sand and 11, 290# 20/40 sand in 70Q N2 Foam Well pressuring out, cut N2, flush w/ linear get and 5ppg Blender sand concentration. ISIP 3600 psi. St 2 hrs, Open well on 1/4" choke, Recovered Plugs of Parriffin & Coal fines, GIH w/ tubing tagged sand bridge at 4118', GIH and retreive RBP Recover Frac Sand Coal fines and Parriffin. Cleanout to PBTD. Landed 2-7/8" tubing at 4282'. RD Release Bayless Rig # 6. RU Swab Unit. Swab Well Recover Coal Fines. & Parriffin. 10-20-90 RU Big A # 5. Run 2" x 1-1/4" pump & 169 rods w/ 2 ponys.

Open Hole Logs (Halliburtion) GR-Ind Dens-Neut Microl on

Cestient Squeeze\*
10-25-90 RU Bayless # 6. Pull Rods & Pump, RU Basin, Set RBP @ 1715', Test to 1000 psi, Perforate 2 holes at 1560', Pump into holes, RU Howco, Pump 300 sxs B cement w/ 0.6% Halad 322, Displace w/ water to 1460'. Displaced at 1 8PM 2000 psi, Ran Temp Survey found TOC @ 500'+/DO cement, Test to 1000 psi, Recover R8P, Land tubing & New Pump Same Depths.

Cased Hole Logs Temp Survey (10-24-90) GR-CCL-CBL (09-17-90) GR-CCL-CBL (10-25-95) GR-NEU-GSL (10-09-95)

Nitrogen Cleanout & Actilize

No. 19-19 Live No. 19 10% Parriffn w/ Coal Fines. 07-05-91 Piston Recovering 15% Parraffin, 5% Oil, 11 bbls H2O & 90 MCFD.

Formation Name: Ojo Alamo & Nacimiento
10-09-95 RU Big A # 11, LD Rods & Pump, Could not circulate out Parriffn w/ 90 bbls water. RU Blue Jet, Run GR-NEU-GSL log. Set CIBP @ 4000', FL @ 2870'.
PT RBP to 1600 psi. RU BJ Services, Spot 1200 gals 7-1/2% HCl at 3818'. RU Basin to Perforate 1 SPF @ 2609', 2614', 2736', 2741', 2853', 2877', 2880', 2941', 2989', 2992'
3001', 3254', 3302', 3380', 3384', 3392', 3405', 3428', 3435', 3438', 3470', 3472', 3487', 3490', 3538', 3584', 3613', 3784', 3792', 3824' (30 Holtes)
GIH w/ Halliburton PKR set at 2432', Acidize w/ 1500 gals 15% HCl w/ ball sealers. Good Breaks. Swabbed back w/ FL @ 2400'.
Set PKR @ 3889', and Swab Test ande 4 runs, swabbed dry, Reset PKR @ 3340', FL constant at 2200'. COOH w/ PKR. GIH w/ BP & PKR Combination
Set RBP @ 3340', Swab Test 2509' to 3340', FL constant at 2200', Set PKR @ 2494'. Swat test 2494' to 3340', FL constant at 2100'.
Move RBP to 3520'. Set PKR @ 3340', Swab test 3350' io 3520', FL constant at 2100'. Release RBP, Set PKR @ 3520', Swab test 3520' to 3824', FL stable @ 2100'
Reset PKR @ 3706', Swab Test 3706' to 3824', FL constant at 1800', Set RBP @ 2520', Swab Test 2790'-2920', FL constant 1800', Set RBP @ 2520', Swab Test 3790'-2920', FL constant 1800', Set RBP @ 2520', Swab Test 3790'-2920', FL constant 1800', Set RBP @ 2520', Swab Test 3790'-2920', FL constant 1800', Set RBP @ 2520', Swab Test 3790'-2920', FL constant 1800', Set RBP @ 2520'', Swab Test 3790'-2920', FL constant 1800', Set RBP @ 2520'', Swab Test 3790'', Swab Test 3706' to 3824', FL constant at 2800'', Swab Test 3706'' to 3824'', FL constant at 1800'', Set RBP @ 2520'', Swab Test 3790'', Swab Test 3706'' to 3820'', FL constant at 2800'', Swab Test 3706'', Set CIBP @ 3700'', Set CIBP @ 37 3435', 3438', 3470', 3472', 3487', 3490' (24 Holes), RU Swab Equipment, Swab Well Dry, Wait 30 mins, Well still Dry, SDON, FL @ 1700', GIH w/ Hal SPIT Tool Set Tool across 3487'-3490', Formation Broke at 3200 psi, Treated 0.7 BPM @ 3000 psi, Set tool 3470' to 3472', Break down zone at 2300 psi, Treat 28PM @ 3000 psi, Set tool 3436' to 3438' (hashe with the state of 1800 psi), Set tool 3470' to 3472', Break down zone at 2300 psi, Treat at 3800 psi, Set tool 3470' to 5472', 3470', 3438', 3435', 3435', 3428', 3405', 3392', 3384', 3380'. GIH w/ SPIT tool Set 3435'-3438', Spot 2 bbis 15% HCl at tool, Break down at 3000 psi, Treat 10.7 BPM at 3750 psi, Reset across 3482', Break at 1600 psi, Treat at 12 BPM 1500 psi, Set across 3405', Break 2200 psi, Treat 2 BPM 2000 psi, Set 3392', Break at 3800 psi, Treat 2 BPM 3000 psi, Set tool @ 3350' RU to Swab, Recover all Water. RU Basin Wireline, Set 5-1/2" CIBP @ 2928', Perforate # 3 2881', 2880', 2879', 2878', 2877', 2876', 2854', 2853', 2852', 2851' (10 holes) GIH w/ SPIT tool Set across 2851' to 2854', Break at 2000 psi, Treat 2 BPM 1125 psi, Reset tool across 2881' to 2876', Break 2000 psi, Treat 2.5 BPM 1800 psi, Retreive valve RU to Swab, Swab zone Dry. RU to Acidize zone, Pump 600 gals at 1.8 BPM 225 psi. Reset across zone 2584' to 2854', Acidize w/ 400 gals 15% HCl Rate 0.8 BPM at 300 psi. Set tool @ 2800'. Swab well dry, COOH w/ SPIT, GIH w/ 95 its (2901'+/-), Swab well dry 45 bbls. Well swabbed dry. COOH, GIH w/ final tubing string, Mud Anchor, SN, 94 its, Land Tubing at 2901' KB, Run Top Hold down pump & 113 778' rods Hang & Space Cut. RD and Move off Rig 10-31-95

TIGHT

Thomas E. Mullins June 20, 1999