

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
Budget Bureau No. 1004-0135
Expires March 31, 1993

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to deepen or reentry to a different reservoir.
Use "APPLICATION FOR PERMIT -" for such proposals.

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other
Salt Water Disposal Well

2. Name of Operator

Synergy Operating, LLC

3. Address and Telephone No.

PO Box 5513 (505) 325-5449 OGRID # 163458
Farmington, NM 87499

4. Location of Well (Footage, Sec, T, R., M, or Survey Description)

Unit Letter H, 1980' FNL, 660' FEL, Sec 22, T21N-R05W

5. Lease Designation and Serial No.

NMNM-105533

6. If Indian, Allottee or Tribe Name

7. If Unit or CA, Agreement Designation

8. Well Name and No.

Bois d' Arc Divide 22 # 5

9. API Well No.

30-043-20979

10. Field and Pool, or Exploratory

Basin Fruitland Coal

11. County or Parish, State

Sandoval, New Mexico

12. CHECK APPROPRIATE BOX(S) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION

- ☒ Notice of Intent
☐ Subsequent Report
☐ Final Abandonment Notice

TYPE OF ACTION

- ☐ Abandonment
☒ Recompletion
☒ Plugging Back
☐ Casing Repair
☐ Altering Casing
☐ Other
- ☐ Change of Plans
☒ New Construction
☐ Non-Routine Fracturing
☐ Water Shut-Off
☐ Conversion 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 PROPOSES TO TEMPORARILY ABANDON THE EXISTING MESAVERDE PERFORATIONS
FROM 3662' TO 3726', UNDER A CIBP, TO BE PLACED AT 3600'.

THE FRUITLAND COAL WILL BE COMPLETED FORMING A NORTH HALF (320-ACRE) SPACING UNIT.

AFTER PRODUCTION TESTING THE FRUITLAND COAL AND ANALYZING THE PRODUCED WATER, SYNERGY MAY

REQUEST A COMMINGLE ORDER. THIS WOULD ALLOW FOR COMMINGLED MESAVERDE AND FRUITLAND COAL PRODUCTION

CONDITIONS OF APPROVAL

Adhere to previously issued stipulations.

14. I hereby certify that the foregoing is true and correct

Signed:

Thomas E. Mullins

Title: Engineering Manager
(505) 325-5449

Date: 01-24-2005

This space for federal or state office use

Approved by:

Chip Humaden

Title: Acting Team Lead

Date: 2/16/05

Conditions of approval if any

Bois d' Arc Divide 22 # 5
T21NR05WSec22-Unit H
1980' FNL, 660' FEL – Sandoval County
API # 30-043-20979
Fruitland Coal Recompletion

Directions: Coming From Farmington. From Counselors (Approximately 97.5 mile marker), Turn right (South) on the Star Lake Plant Road. Travel 4.4 miles and take the Left fork. Travel 0.2 miles and Turn Left on the Ojo Encino School Road. Travel 11.7 miles (turns to pavement @ 6.2 miles) and turn Left (East) at the gasoline pumps. Travel 3.3 miles and turn Right. Travel 1.3 miles and turn Left (North). Drive through SWD location about 0.4 miles to well.

Directions: Coming From Cuba. Take Highway 197 West. Travel 15.7 miles and turn Right on the Ojo Encino (Paved) Road. Travel 17.7 Miles. Turn Right (East) at gasoline pumps. Travel 3.3 miles and turn Right. Travel 1.3 miles and turn Left (North). Drive through SWD location about 0.4 miles to well.

Well History: The fifth producer of five (5) wells drilled as part of the 40 Acre Divide Menefee Coal Bed Methane Program in this area. The well was drilled by Key Energy Rig # 47 from 08/21/2003 to 08/26/2003. This well has a 12-1/4" hole with 8-5/8" surface casing cemented to surface from 190'. A 7-7/8" hole was mud drilled out from under surface to 4055', and OH logs were run without problems. 5-1/2" 15.5# K-55 casing was run and cemented to surface in a single stage at 4050'. Cement was circulated to surface.

A 228-212-86 Lufkin pumping unit w/ gas engine is installed and the well is tied into the SWD gathering system for both gas and water. On 11/05/2003 a cased hole GR-CCL-CBL was run from PBTD of 3999' to surface. Top of cement is at surface.

On March 5, 2004, completion operations commenced in the Menefee. Perforations were shot at 4 SPF in four (4) separate Menefee Coal intervals, 11.5 total perforated interval with 46 holes from 3662.5' to 3726.5'. These perforation intervals were individually broken down and treated with 2% KCl water and with a Baker SAPP tool at various rates. Total stimulation water for the coal intervals was 518 bbls. The well was left pumping to the SWD # 1 facility with a 2.25" tubing pump landed on the 2-7/8" tubing at 3827', with a tubing anchor at 3502' on March 12th 2004. Some spacing adjustments were made to improve the pump action on the well, with results of 25 BWPD, Zero Oil, and almost enough gas to run the pump jack.

A second completion event was performed on the Divide 22 # 5 beginning on June 21, 2004. The rods and tubing were pulled and removed from the well. A PKR was run and set at 3500' to facilitate stimulation down the 2-7/8" tubing string with a rigless operation. As with the Divide 22 # 3 re-stimulation, the use of spearheading 7.5% HCl acid, use of 100 mesh sand, and the smaller proppant size 40/70 proppant was theorized to improve the production potential of this well. Detailed information:

PT pumps and lines to 8500 psi. Set Pop-Off at 7500#. Fracture Stimulate Menefee down 2-7/8" tubing at 18 BPM from 3662' to 3727'. Establish rate at 16.5 BPM on water 5200 psi. ISIP 1677, Spearhead 1000 gals 7-1/2% HCl acid, then 24 bbl gel spacer, start 24 bbl X-link gel pad, pump 309 bbls 0.5 ppg 100 mesh (3500 lbs total), 370 bbls 0.5 to 1.0 ppg 40/70, 318 bbls 1.0 ppg to 2.0 ppg 40/70, 133 bbls 2.0 ppg to 3.0 ppg 40/70, and 56 bbls 3.0 ppg 40/70 Flush to Top Perf. ATR 18 BPM, 3700 ATP, MTP 5200 psi. ISIP 1570, 5 min 1285, 10 min 1243, 15 min 1182. SI well. Total of 3,500 lbs 100 mesh and 50,000 lbs 40/70 Tempered LC Resin coated proppant. Total of 50,358 gals 20# X-linked Gel. Frac Gradient 1.0 psi/ft Sb first 5K including 100 mesh, Ir tracer on first 30K, Sc on last 20K proppant.

The tubing was run in the well tagged no fill to 3880', the 2-7/8" production tubing was again landed with the 2.25" tubing pump at 3826', with a tubing anchor at 3502'. Prior to the rods being run, a post-frac Protechnics gamma ray log was run which indicated that all perf intervals accepted all stages of the sand treatment. Height growth was well contained, with growth up of only four (4) feet and growth down of only six (6) feet.

The rod string consists of ten (10) - 1-1/2" weighted rods, thirty-six (36) - 7/8" rods, sixty-nine (69) 1" Fiberflex Fiberglass rods (37.5' each), 2 - 8' ponys, 1 - 6' pony, 1 - 4' pony, 1 - 2' pony, and Polish Rod.

Initial production from the 22 # 5 well following the fracture stimulation was noted at 300 BWPD, Zero MCFD, and Zero BOPD. July 14, 2004, Initial fluid level was located at 3100' from surface or approximately 500 feet above the pump. The well appears to be pumped off with little to no fluid entry.

It is believed that coal fines have migrated near the wellbore, within the hydraulic fracture proppant pack and plugged communication with the reservoir coals.

Dynamometer cards were run on the well, with fluid levels shot indicating that the well is in a pumped off condition.

Purpose of Work: This procedure is written to temporarily abandon the existing Menefee perforations from 3662' to 3726' under a CIBP and to recomple to the Fruitland Coal formation. The acreage dedication will be a North Half (320 Acre) Fruitland Coal spacing unit.

The completion is planned as a rigless fracture stimulation due to frac crew availability and timing constraints.

Notify BLM (Farmington Field Office-Changed from AFO) and NMOCD of the commencement of additional completion activities. Comply with all company and regulatory safety and environmental requirements. Designate a smoking area on location.

5-1/2" 15.5# K-55 Casing @ 4050'
2-7/8" 6.5# J-55 Tubing (4100' required on location).
PBSD @ 3999'+/-, Tagged top of sand fill at 3880'

Divide 22 # 5
Menefee Abandonment
Fruitland Coal Completion
Version 01-05-2005

Marker It from 3373' to 3378'.

Tubing Anchor 3502' (15K tension)

Top Perf @ 3662'

Btm Perf @ 3726'

Zone # 6 Perfs from 3662.5' to 3664.5' (2.0') 4 Shots per Ft 8 Holes this Zone

Zone # 5 Perfs from 3682' to 3686.5' (4.5') 4 Shots per Ft 18 Holes this Zone

Zone # 4 Perfs from 3696.5' to 3698.5' (2.0') 4 Shots per Ft 8 Holes this Zone

Zone # 3 Perfs from 3723.5' to 3726.5' (3.0') 4 Shots per Ft 12 Holes this Zone

Total of 11.5 feet of Coal, 46 holes Total

- 1) Spot and fill two (2) – 400 bbl frac tanks with 2% KCl water - Base Fluid Bloomfield City Water for all completion activities.
- 2) MIRU workover rig, with auxiliary equipment. Check pressures on the WH. Blow down casing as necessary to rig pit.
- 3) ND Horse's Head.
- 4) TO AVOID PULLING A WET STRING. Recover the standing valve with the rods. Stack rod string out on top of pump, Stabbing the standing valve. Turn the rod string to the right approximately 20 times until it torques up. Then COOH with the rods. It will feel just like unseating the pump.
- 5) Lay down all rods on a 40 foot trailer.
- 6) ND WH, Install companion flange. NU BOPE w/divertor spool. Function test BOPE. Note ball-valve pressure limitations on wellhead.
- 7) Unseat Tubing Anchor at 3502', and Unseat Tubing Hanger.
- 8) COOH, Tally out with 2-7/8" production tubing from 3826' (Note anchor at 3502').
- 9) MU Baker 5-1/2" 15.5# CIBP on 2-7/8" tubing and GIH.
- 10) Tubing set CIBP at 3600', above all existing Menefee perforations (3662' to 3726'). THIS PLUG TEMPORARILY ABANDONS THE EXISTING MENEFEE PERFORATIONS.
- 11) Load 5-1/2" casing from bottom with 2% KCl. Note volume taken to circulate back to surface.
- 12) Pressure Test CIBP, 5-1/2" Casing, and BOPE to 1500 psi. Hold pressure 30 mins.
- 13) COOH with setting tool, laying down all 2-7/8" tubing on float (3826' of 6.5# pipe, 24,869 lbs.)
- 14) MIRU Blue Jet to perforate the Fruitland Coal. All Perforation depths referenced to the GR-CCL-CBL run 11-05-2003. Slight depth shift from the openhole logs. Collars at 1620', 1577'+, 1536'-, 1491', 1446'-, 1400'+. POOH. RDMO Blue Jet.

1447' to 1452' (5') - 4 SPF, 120 deg phase, 20 holes
- 15) ND BOPE.
- 16) Install WSI 5-1/2" Isolation tool and frac valve equipment to stimulate the Fruitland Coal rigless.
- 17) Rig-Up Immediate Flowback Equipment with a single flowback line to a flowback tank. Install a single 1/2" positive choke.
- 18) RD and Release Workover Rig to the Divide 22 # 2.

Divide 22 # 5

Menefee Abandonment

Fruitland Coal Completion

Version 01-05-2005

- 19) MIRU Stimulation Company. Connect to wellhead isolation tool. Pressure Test Pumps and Lines to 4000 psi. Maximum allowed surface treating pressure is 3500 psi. Perform all QC tests including foam stability test. RU Protechnics International RA tracer.
- 20) Foam Fracture Stimulate Fruitland Coal (1447' to 1452') down the 5-1/2" casing with 60 Quality 20# Linear Gel Nitrogen Foam. Pump 500 gallons 7.5% HCl acid w/ additives ahead, followed by 35,000 lbs 20/40 Super LC (No Activator) in a ramp to 2.5 ppg.
- 21) Flow well back to flowback tank until dead, report flowing pressures if any.
- 22) MIRU Workover Rig.
- 23) ND Isolation Tool and NU BOPE. Function Test.
- 24) May have to clean out sand. Plenty of Rathole. RU Slickline. Run Post Frac GR Log down casing.
- 25) GIH w/ 2-7/8" Production Tubing String, configured for top-hold down rod pump assembly (Mud Anchor Jt, six foot 2-7/8" perf sub, 2-7/8" SN, and remaining tubing. Land tubing at 2000'+/-, 500 feet below Fruitland Coal Perforations.
- 26) RU and run 2" top hold down rod pump and designed rod string. Check tubing and pump valves to 500 psi.
- 27) Hang well on and pump well overnight to the SWD Facility.
- 28) Rig Down and Release rig to the next well.
- 29) File Sundry Reports and Notices of Menefee Abandonment and Fruitland Coal completion.
- 30) Connect test meter to casing to monitor gas production.
- 31) Monitor production performance.

Contact List:

| | | |
|---------------------------|-------------------------|----------------|
| PT, Acid, & Stimulation | BJ Services | (505) 327-6222 |
| RA Tracer | Protechnics | (505) 326-7133 |
| Wellhead, Isolation Tools | WSI Machine | (505) 326-0308 |
| DH Tools | Baker Oil Tools | (505) 325-0216 |
| Perforating Services | Blue Jet | (505) 325-5584 |
| DH Pump & Rods | Energy Pump & Supply | (505) 564-2874 |
| Supervision (Tom Mullins) | Synergy Operating | (505) 320-1751 |
| Frac Tanks (1st Choice) | Four Corners Frac Tank | (505) 320-1751 |
| Frac Tanks (2nd Choice) | Lindrith Backhoe Rental | (505) 320-5460 |

TEM

01/05/2005

Divide 22 # 5

Menefee Abandonment

Fruitland Coal Completion

Version 01-05-2005

DISTRICT I
825 N. French Dr., Hobbs, N.M. 88240

DISTRICT II
11 South First, Artesia, N.M. 88210

DISTRICT III
000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

Form C-102
Revised August 15, 2000

Submit to Appropriate District Office
2005 FEB 15 State Lease 4 Copies
Fee Lease 3 Copies

RECEIVED
070 FARMINGTON NM
AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

| | | | |
|-----------------------------|---|------------|------------------------------------|
| *API Number 30-043-20979 | | *Pool Code | *Pool Name BASIN FRUITLAND COAL |
| *Property Code | *Property Name BOIS d'ARC DIVIDE 22 | | *Well Number 5 |
| *OGRID No. 163458 | *Operator Name SYNERGY OPERATING LLC | | *Elevation 7213' |

¹⁰ Surface Location

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|---------------|---------|----------|-------|---------|---------------|------------------|---------------|----------------|----------|
| H | 22 | 21-N | 5-W | | 1980' | NORTH | 660' | EAST | SANDOVAL |

¹¹ Bottom Hole Location If Different From Surface

| UL or lot no. | Section | Township | Range | Lot Idn | Feet from the | North/South line | Feet from the | East/West line | County |
|-------------------------|---------|-------------------------|-------|---------------------|---------------|------------------|---------------|----------------|--------|
| | | | | | | | | | |
| *Dedicated Acres 320 | | *Joint or Infill N/Z | | *Consolidation Code | | *Order No. | | | |

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

| | | | |
|----|---|------------------------------|--|
| 16 | FD 2 1/2" U.S.G.L.O. BC 1925 | S 89-58-33 W 2613.30' (M) | FD 2 1/2" U.S.G.L.O. BC 1925 |
| | | 1980' | S 00-01-58 W 2632.70' (M) |
| | LAT. 36°02'12" N (NAD 83) LONG. 107°20'37" W | 664' | 660' |
| | | 647' | |
| | | | FD 2 1/2" U.S.G.L.O. BC 1925 |

17 OPERATOR CERTIFICATION

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

Signature
THOMAS E. MULLINS
Printed Name
ENGINEERING MANAGER
Title
3-3-2003
Date

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

2 DAVID JOHNSON
Date of Survey
NEW MEXICO
Signature and Seal of Professional Surveyor:
14827
REGISTERED PROFESSIONAL SURVEYOR
14827
Certificate Number