

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

2. Name of Operator

Synergy Operating, LLC

3. Address and Telephone No.

PO Box 5513

(505) 325-5449

Farmington, NM 87499

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

Unit Letter P, 690' FSL, 615' 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 # 2

9. API Well No.

30-043-20982

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 3694' TO 3766', UNDER A CIBP, TO BE PLACED AT 3600'.

THE FRUITLAND COAL WILL BE COMPLETED FORMING A SOUTH 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 Hansen

Title: Acting Team Lead

Date: 2/16/05

Conditions of approval if any

Bois d' Arc Divide 22 # 2
T21NR05WSec22-Unit P
690' FSL, 615' FEL – Sandoval County
API # 30-043-20982
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 0.8 miles and turn Right. Travel 0.3 miles into location.

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 0.8 miles and turn Right. Travel 0.3 miles into location.

Well History: The second 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 08/03/2003 to 08/09/2003. This well has a 12-1/4" hole with 8-5/8" surface casing cemented to surface from 194'. A 7-7/8" hole was mud drilled out from under surface to 4066', and OH logs were run after 2 unsuccessful attempts. 5-1/2" 15.5# K-55 casing was run and cemented to surface in a single stage at 4060'.

On December 9, 2003 completion operations commenced on the Menefee interval. Perforations were placed in the three (3) coal intervals, from 3694' to 3766'. These intervals were individually broken down with a PKR and Plug combination assembly and fracture stimulated below a PKR through the 2-7/8" production tubing.

Fracture Stimulate Menefee Coal Intervals from 3694.5' to 3766' (11 Feet Coal, 26 Holes) Stimulate with 31,500 lbs 20/40 Super LC Proppant in 25# X-Linked Gel, 23,000 gallons Fluid Sand Ramp from 0.5 ppg to 2.0 ppg. One Ball Drop of 10 Bio Ball Sealers, Tripped Pop-off at 6700 psi. Establish rate second time. Initial Frac Gradient of 1.2 psi/ft. After Ball Drop Gradient of 1.9 to 2.1 psi/ft, at reduced rate 5 BPM. Target Rate of 15 BPM achieved throughout the majority of job. Once Sand was started again, it degraded the BioBalls and the Frac Gradient Returned to 1.2 psi/ft from the reduction to 0.89 psi/ft. Good Job. ATP 4150, ATR 12, MTP 6700 ISDP 1475, 5 min 1120, 10 min 1035, 15 min 988. RD BJ Services. See Detailed File. RU Flowback Line open well, 800#, to rig tank, Flow well back 1 hr. Flow Stopped.

The post frac GR log indicated that the majority of the stimulation treatment entered the top two coal intervals. The lower coal interval from 3764' to 3766' did not appear to take proppant from the stimulation.

The well was placed on rod pump, testing to the rig pit on 12/16/2003. A water rate of 300 BWPD, a Trace of oil, and a minor amount of gas is produced from this well. Production commenced to the SWD facility in February 2004 from this well, which within 5 days indicated

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

a pumped off condition. Bucket testing indicated that the well was only producing 74 BWPD, with minimal gas. This water rate decreased until the well was placed in a pumped off condition.

It was theorized the Menefee perforations were plugged by coal fines deeper in the proppant pack of the formation. On October 26, 2004, an acid pump was utilized to pump down the annulus in hopes of removing the near perforation blockage. The hole caught pressure after 35 bbls of fluid, indicating a fluid level at approximately 2200'. The well pressured to 1400#, until the acid reached the perforations, at which time the pump pressure went on a vacuum. The rod pump was started at this time, and the well pumped for 2 days before returning to its same pumped off condition, making less than 20 BWPD, no oil, and no gas.

A future restimulation of the Menefee may be warranted to restore production.

A 228 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 4008' to surface. Top of cement is at surface.

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 3694' to 3766' under a CIBP and to recomple to the Fruitland Coal formation. The acreage dedication will be a South Half (320 Acre) Fruitland Coal spacing unit.

NMOCD spacing rules indicate that a Non-Standard Location (NSL) Application may be necessary to perform this workover because the location is located closer than 660 feet to the east line of the section.

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 @ 4060'

PBTD @ 4008' +/-,

Marker Jt from 3415' to 3420'.

Top Perf @ 3694'

Btm Perf @ 3766'

Zone # 1 3764' to 3766' (2.0') - 8 holes

Zone # 2 3740' to 3743.5' (3.5') - 7 holes

Zone # 3 3694.5' to 3700' (5.5') - 11 holes

Total of 11 feet of coal perforated, 26 perforations, 64 feet of gross interval

2-7/8" tubing at 3860' (118 total jts). BP, 1 Jt, 6' perf sub

Divide 22 # 5

Menefee Abandonment

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SN @ 3828'.

DH Pump, 92 - 3/4" Rods, 61 - 7/8" Rods, 6', 4', & 2' 7/8" Ponys, & Polish Rod.

- 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) Unseat Pump. COOH w/ rod string.
- 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) No Tubing Anchor this well.
- 8) COOH, Tally out with 2-7/8" production tubing from 3860' (118 Jts).
- 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 (3694' to 3700').
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 (3860' of 6.5# pipe, 25,090 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 1376', 1420'+, 1509'+, 1554'-. POOH. RDMO Blue Jet.

1458' to 1464' (6') - 4 SPF, 120 deg phase, 24 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.
- 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 a 20# X-linked Gel. Pump 500 gallons 7.5% HCl acid w/ additives ahead, followed by 35,000 lbs 20/40 brady w/ (Flexsand or Sandwedge) in a ramp to 4 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.

Divide 22 # 5

Menefee Abandonment

Fruitland Coal Completion

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- 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

01/10/2005

ICT I
H. French Dr., Hobbs, N.M. 88240

State of New Mexico
Energy, Minerals & Natural Resources Department

Form C-102
Revised August 15, 2000

ICT II
South First, Artesia, N.M. 88210

ICT III
Rio Brazos Rd., Aztec, N.M. 87410

ICT IV
South Pacheco, Santa Fe, NM 87505

OIL CONSERVATION DIVISION

2040 South Pacheco
Santa Fe, NM 87505

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

2005 FEB 15 PM 3:30

RECEIVED

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-043-20982	² Pool Code	³ Pool Name BASIN FRUITLAND COAL
⁴ Property Code	⁵ Property Name BOIS d'ARC DIVIDE 22	⁶ Well Number 2
⁷ OGRID No. 163458	⁸ Operator Name SYNERGY OPERATING LLC	⁹ Elevation 7238'

¹⁰ Surface Location

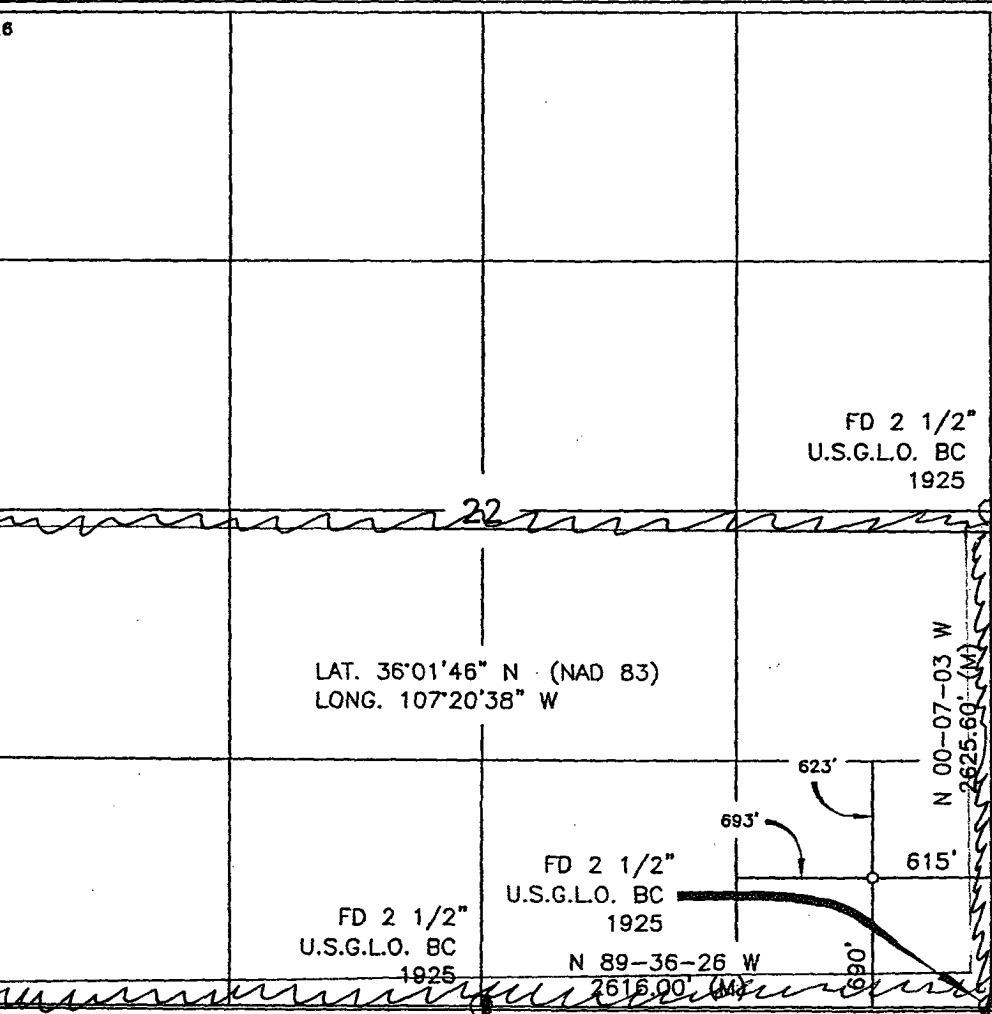
L or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	22	21-N	5-W		690'	SOUTH	615'	EAST	SANDOVAL

¹¹ Bottom Hole Location If Different From Surface

L or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres 320	¹² Joint or Infill 5/2	¹³ Consolidation Code	¹⁴ Order No.
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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



17 OPERATOR CERTIFICATION

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

Thomas E. Mullins
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.

DAVID A. JOHNSON
Date of Survey
Signature and Seal of Professional Surveyor:
14827
14827
Certificate Number