

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

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

2002 OCT 31 PM 2:35
NMNM-99720
070 FARMINGTON, NM

SUBMIT IN TRIPLICATE

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

Synergy Operating, LLC (agent for Bois d' Arc Offshore, Ltd.)

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 A, 250' FNL, 920' FEL, Sec 15, T20N-R05W
BH-Location

151' FNL, 736' FEL, Unit A, Section 15, T20N, R05W - McKinley County, 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 or fracture 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 well.

Synergy Operating, LLC plans to abandon the wildcat Mancos interval underneath a cement retainer placed at 3950'+/-. This zone was tested and found to be uneconomical. Cumulative production from the Mancos was 52 bbls Oil, 1297 bbls water, and 484 MCF gas.

Synergy may need to dispose of produced water into the Mancos interval, and therefore is not cementing these perforations at the present time.

Synergy will perforate the Lower Menefee Coal intervals from 2778' to 2826', fracture stimulate the zone, and place this zone on rod-pump for a production test.

Per ammended NSL-4648 dated February 19th, 2002, this wildcat completion is authorized.

Please see the attached information for more detail.

~~Confidential Information.~~

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

Signed:

Thomas E. Mullins

Title: Engineering Manager

Date: 10-31-2002

This space for federal or state office use

Approved by:

Original Signed: Stephen Mason

Title:

Date: 11/6/02

Conditions of approval if any

NMOCD

Bois d' Arc Encino 15 # 1
T20NR05WSec15
250' FNL, 920' FEL
Meneffe Coal Bed Methane Completion Procedure

Well History: The first well drilled in the SJJV Menefee Coal Bed Methane program. The Encino 15 # 1 well was spud with mud on November 12, 2001 with a surface casing setter rig. Aztec Well Service Rig # 507 drilled out from under surface on November 18, 2001. During initial hole surveying operations, it was identified that the surface casing was drilled and cemented at 14 degrees +/- deviation, with significant dogleg severity. Additional drilling days (17 vs 9), and directional tools were necessary to ensure the well penetrated the target.

Lost circulation was encountered during the primary cement job on the 5-1/2" casing, which required remedial cement work to be performed. Five (5) cement squeezes were necessary to cover future pay intervals and meet governmental zonal isolation requirements. A downhole motor was necessary to drill out the cement squeezes and cementing equipment, to prevent damage to the 5-1/2" production casing from pipe rotation. Additional completion rig days (32 vs 10) and associated completion equipment were required to perform these tasks.

An under-balanced perforated completion was performed in the Lower Dakota target sand from 5126' to 5162'. After breaking the perforations down, the Dakota zone tested 100% water with no signs of hydrocarbon. This zone was abandoned permanently per governmental requirements.

The Mancos formation was perforated through the 5-1/2" production casing and a small nitrogen water based foam stimulation treatment was performed without proppant from 4030' to 4150'. No proppant was utilized because of a lack of cement coverage across the pay interval and the anticipated sand production that would cause operational rod pumping difficulties. After initial flowback of the Mancos, 2-7/8" tubing and a downhole rod-pump were placed in the well to production test the Mancos interval.

Production testing of the Mancos zone yielded minor amounts of oil (0.5 BOPD), and small volumes of water (7 BWPD). The gas production from the Mancos was metered against 20 psi simulated line pressure and vented to the atmosphere at a rate of only 2 to 4 MCFD. The well produced enough casinghead gas to run the pump jack equipment, but little extra.

These production results from 03/29/2002 until 07/28/2002 (121 days) are sufficient to determine the uneconomic nature of this Mancos completion. Total production from the Mancos formation to date is 52 Bbls Oil, 1297 Bbls Water, and 484 MCF gas. The stock tanks currently hold the produced oil, and the water production was placed into the reserve pit for evaporation. No revenues have been received to date from the well.

The well was shut-in effective August 1, 2002, awaiting recompletion to the Mesaverde.

262

Notify BLM (Farmington) and NMOCD of the commencement of completion activities. Comply with all company and regulatory safety and environmental requirements. Designate a smoking area on location.

Well facilities in place, include, four (4) – 300 bbl production tanks, Low Pressure 3 phase separator, 2" Meter run for gas (vented). Lufkin 228D-250-74 Pumping Unit. Drilling reserve Pit.

5-1/2" 15.5# K-55 Casing @ 5289'

2-7/8" 6.5# J-55 EUE Tubing @ 4398' (135 Jts) in the well.

DH pump, sb, 112 guided 3/4" rods, 60 reg 3/4" rods, & ponys.

Mancos perms 4030' to 4150'

Current PBTD @ 4793' (Retainer)

Stage Tool @ 3024'

- 1) Spot and fill two (2) – 400 bbl frac tanks with 4% KCl water for all completion activities. Spot Flowback tank, and run flowback lines to the WH.
- 2) MIRU workover rig, with auxillary equipment. Check pressures on the WH. Blow down casing as necessary. ND WH. NU BOPE.
- 3) Unseat Tubing. GIH and tag PBTD.
- 4) COOH with 2-7/8" tubing, tally out of the hole.
- 5) PU 5-1/2" cement retainer. GIH w/ retainer & set above Mancos perms @ 3950'+/-. No cement to pumped below retainer at this time. Sting out of retainer. Circulate hole clean with 4% KCl water. Returns to flowback tank, to recover any oil. Mancos interval may be utilized for water disposal. RU BJ Services. Test entire 5-1/2" casing and BOPE to 3000 psi. Hold 5 minutes. Bleed off Pressure.
- 6) MIRU Bluejet Wireline. RIH and perforate Meneffe Interval at the following depths (Correlate with Schlumberger GR-CET run 03/18/2002). DV tool @ 3020'. POOH. RDMO Blue Jet. Note poor cement bond quality.

2822'-2826' (4') 1 SPF phased 90 degrees (0.34") 4 holes (Coal Bed)

2790'-2794' (4') 1 SPF phased 90 degrees (0.34") 4 holes (Coal Bed)

2778'-2782' (4') 1 SPF phased 90 degrees (0.34") 4 holes (Coal Bed)

12 Total

- 7) MU Baker SAP tool 6' spacing without any sort of MICV valve, run a mechanical CCL on bottom. Run below all perforations to 3000'. Set PKR and tools.
- 8) BJ Services. Monitor all pressures with computer equipment. Perform all breakdowns with 4% KCl water. Have on location 500 gallons of 10% Acetic Acid. Breakdown the lower Coal Interval with 4% KCl water. Perform step rate injection test into the zone. SD. Monitor pressures and fall-offs. Repeat per onsite engineer. Estimated pump in volume of 20 bbls +/-.
- 9) Move tool across the middle Coal interval. BD this sand interval w/ 4% KCL water. Perform step rate injection test into this zone. SD. Monitor pressures and fall-offs. Repeat per onsite engineer. Estimated pump in volume of 20 bbls +/-.

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- 10) Move tool across the third zone, Coal Interval. BD this interval w/ 4% KCl water. Perform step rate injection test into this zone. SD. Monitor pressures and fall-offs. Repeat per onsite engineer. Estimated pump in volume of 20 bbls +/- . This information will be utilized to determine the actual frac gradients between intervals. Reference SPE Paper 75701. Rates and pressures should initially be minimized to avoid fracturing the formation.
- 11) Pull tool above all perforations. Perform 4% KCl pump-in on all zones. Monitor fall-off for all zones together.
- 12) COOH w/ Baker SAP 6' spacing tool.
- 13) MIRU WSI wellhead isolation tool and frac valve equipment for 5-1/2" casing. NU on top of BOPE, with set-up for immediate flowback after the frac.
- 14) BJ Services. MIRU Stimulation equipment for frac down the 5-1/2" casing. Stimulate the Meneffe Interval from 2778' to 2826' (48') with a Linear gel based Nitrogen Foam Frac 70 quality. Base Gel Loading of 20# Linear at 35 BPM. 30,000 lbs of 20/40 Super LC proppant. No activator is planned. Protechnics will trace the stimulation job with three (3) RA isotopes. Max Pressure during stimulation to be 3800 psi. See attached procedure. SD afterfrac. Immediately flowback the well on 1/4" positive choke to the flowback tank.
- 15) Continue to monitor the flowback of the well. Record pressures and liquid recoveries on an hourly basis. Flowback time anticipated to be 2 to 3 days.
- 16) Kill Casing w/ 4% KCl water. ND Isolation tool and frac lines.
- 17) PU sand bailer and GIH on 2-7/8" tubing. Flow well to flowback tank as necessary.
- 18) Tag any fill and bail out any sand to reach a minimum 300' below perfs PBTD (3100'). COOH as necessary.
- 19) Run post frac Protechnics GR Production Log.
- 20) Run 2-7/8" production tubing set-up to rod pump as follows: Tapped Bull plug, 1 jt 2-7/8" as mud anchor, 6' 2-7/8" perf sub, SN, and remaining tubing. Land @ 3200' +/-.
- 21) Run top hold down pump and 3/4" rod string as designed. Space out pump. NU Polish rod, w/ rotator, Hang on the well.
- 22) Start pump jack running on propane. Monitor well overnight, and/or over the weekend.
- 23) RD & release workover rig and auxillary equipment.
- 24) Report production activities.

Contact List

PT, Acid, & Stimulation	BJ Services	(505) 327-6222
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
Water Hauling	B&B Vac	(505) 289-4048/320-1211
Water Hauling	Three Rivers Trucking	(505) 325-8017
KCl Water	Key Energy Services	(505) 327-0416

