

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NM OIL CONSERVATION

ARTESIA DISTRICT

SEP 11 2014

OCD-ARTESIA

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.5. Lease Serial No.
NMNM110829

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
BROWNING FEDERAL COM #19. API Well No.
30-015-3563810. Field and Pool, or Exploratory
MALAGA, MORROW, WEST (GAS)11. County or Parish, and State
EDDY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well

☐ Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

LEGEND NATURAL GAS III, LP

Contact: JENNIFER ELROD

E-Mail: jelrod@lng2.com

3a. Address

15021 KATY FREEWAY SUITE 200
HOUSTON, TX 77094

3b. Phone No. (include area code)

Ph: 817-872-7822

Fx: 817-872-7898

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

Sec 17 T24S R28E

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

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input checked="" type="checkbox"/> Recomplete	<input type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleate horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleation in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

BOND NMB000525

Browning Federal Com #1 was drilled and completed in the Morrow formation in 09/2007. Well went down in late 2012 due to a stuck plunger, production could not be restored and a tubing leak was determined to be the cause. Legend Natural Gas III, LP would like to recompleate the well in the Malaga; Atoka West (Gas) Pool (#80900), perms from 11696-11920 and the Wildcat Strawn formation, perms 11504-11574. We are requesting an exception for the amount of cement used to plug off the Morrow formation. The bottom proposed perf is at 11992' and the top of currently open perms is at 12242'. This leaves a gap of 250' between the current perms and the proposed perms. We propose to set a bridge plug 57' above currently open perms and pump 100' of cement on top of plug. This will leave approximately 93' of rathole below the bottom proposed perf which should allow for any expansion of cement, mitigate the risk of potentially stringing cement up the hole (thereby causing

**WITNESS
PLUG BACK****SUBJECT TO LIKE
APPROVAL BY STATE****Accepted for record
NMOCD RES**

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

**Electronic Submission #255839 verified by the BLM Well Information System
For LEGEND NATURAL GAS III, LP, sent to the Carlsbad**

Name (Printed/Typed) JASON VINING

Title COMPLETIONS & PROD. ENGINEER

Signature (Electronic Submission)

Date 08/05/2014

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

Title

Office

Date

SEP 10 2014

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED****BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE**

Additional data for EC transaction #255839 that would not fit on the form

32. Additional remarks, continued

issues when running in the hole with the perf guns), and minimize the need for cleanouts in the future due to fill. .

Approximate Start date for recompletion would be 08/20/2014 and it would take approximately 10 days to finish all procedures planned.

Existing WBD, Proposed WBD with new completion, and Procedure is attached along with a cross section map detailing the borders of Strawn and Atoka formations.



Workover Procedure

Engineer: Jason Vining

Date: 07/31/2014

Legend Natural Gas

LEASE: Browning Fed Com
FIELD: Black River
LOCATION: 1980' FSL & 1900' FEL

WELL #: 1
COUNTY: Eddy
LEGAL: Sec 17 24S 28E

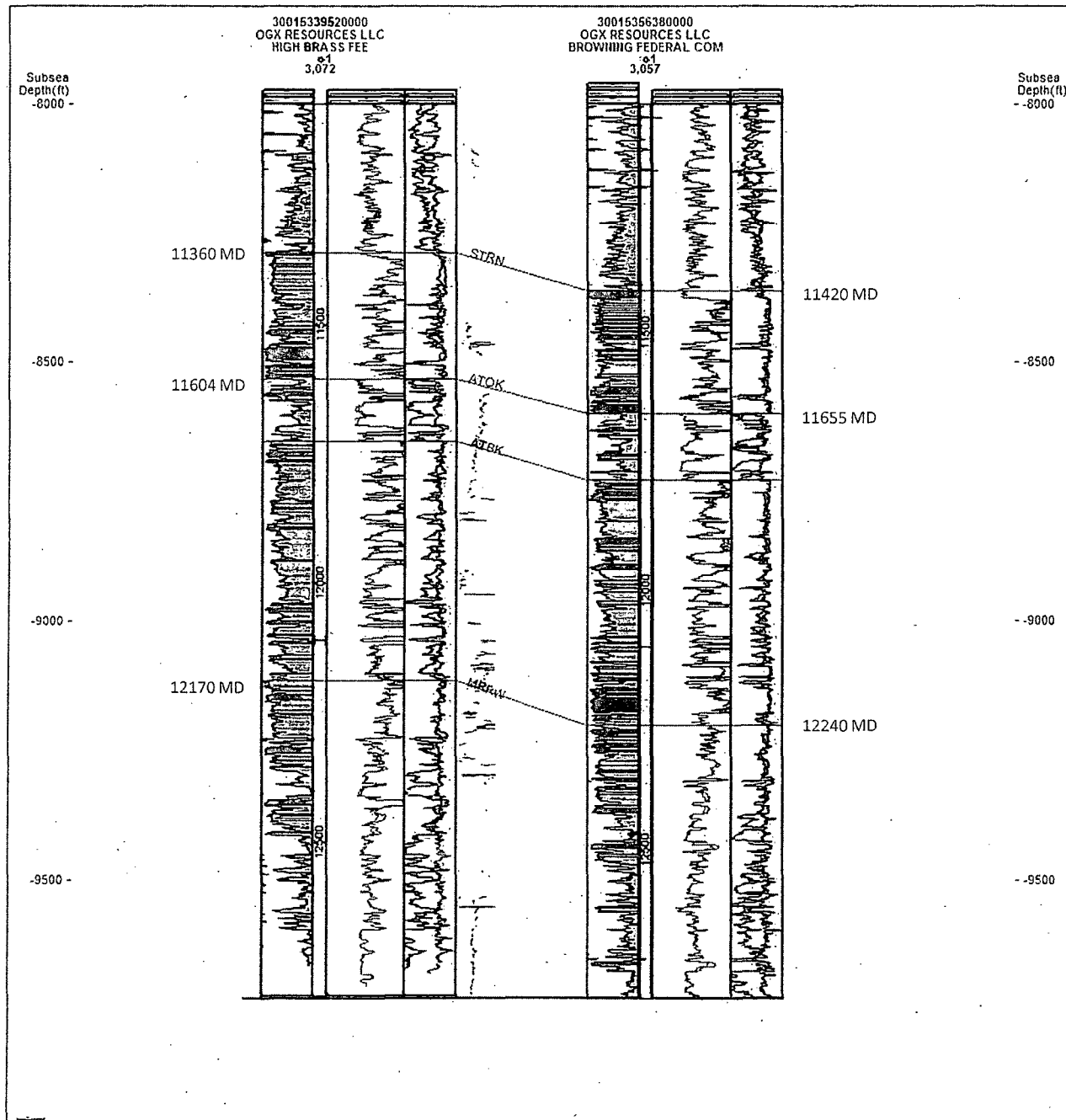
API#: 30-015-35638
STATE: NM
KB:

Objective: The Browning Fed Com #1 was drilled and completed in the Morrow formation in 9/2007. It went down in late 2012 due to a stuck plunger. After successfully fishing the plunger, production could not be restored and a tubing leak was determined to be the cause. After researching offsetting Atoka production, it is now recommended to pull and replace bad tbg, plug back the existing Morrow zones (potentially add these zones back after pressures equalize), then recomplete the well to the Atoka formation. The well should flow via natural flow, and then the method of artificial lift will be plunger lift.

PROCEDURE

1. Day before rigging up, blow well down.
2. MIRU WO Rig. ND WH, NU 5k hydraulic BOP (2-3/8" pipe rams). Have Baker Pkr hand on location to supervise release of AS1X Pkr.
3. MIRU tubing scanning equipment. Release AS1X Pkr, scan 2-3/8" 4.7# N-80 EUE 8rd tbg out of hole, trash bad tbg, send PKR w/ Baker to have inspected and redressed. Replace bad tbg w/ tbg from yard.
4. Call BLM to notify of setting plug. PU 4-1/2" CIBP on K1 (mechanical) setting tool and 2-3/8" tbg, TIH to 12,185', set plug (with Baker supervision). PUH 2' (so EOT @ ~12,183'). MIRU cmt equipment (will need 12 sx), pump truck, and have 2 frac tanks on loc (1 full of frac pond water and the other for flowback). Fill wellbore with freshwater by pumping down tbg, and circulate additional 50 bbls once getting circulation (total wellbore capacity is 377 bbls). Mix 10 sx cmt (83 gal mixed cmt, 2.36 bbls), pump down tbg, tailing in with freshwater (tbg capacity is 47.1 bbls). Shut down pumps and start pulling tbg when only last 2 jts of tbg are full of cmt. Once EOT is @ +/-12,000', reverse circulate and continue circulating until water turns cloudy and then turns clean. SDFN.
5. Call BLM to have them witness tagging cmt. TIH and tag TOC, note tag-up depth. TOOH and lay down setting tool. Load well and pressure test casing to 300 psi, hold for 5 min and note any leakoff.
6. If leakoff is observed, call out Baker Pkr hand and 7" fullbore Pkr. TIH to 7000'. Rig up 5k pump truck, pressure test casing below PKR to 500 psi for 5 min. Note any leakoff. After bleeding off pressure, do the same above the PKR. Start hunting CSG leak.
7. Once the leaky CSG intervals have been confirmed, discuss with engineering to decide plan going forward.
8. After CSG leak has been remediated, MIRU WL truck, 5k lubricator, and pump truck. RIH w/ gauge ring, junk basket, and CCL down to +/-11,950', **Correlate to Capitan Corporation, GR/CCL/CBL/VDL, OGX Resources, ran 9/4/07. PU and RIH w/ (3-3/8" csg guns), pressure up casing to 500 psi, perforate Strawn/Atoka formation from 11504-518' (14'), 11565-574' (9'), 11621-626' (5'), 11696-704' (8'), 11812-816 (4'), 11876-888 (12'), 11898-920' (22'), 11959-968' (9'), 11982-992' (10'), 2 SPF (93', 186 holes).
9. Note pressure changes after each gun is fired. After all guns fired, PU 4-1/2" 13.5# AS1X PKR w/ 1k psi rupture disk sub (w/ disk) and WLEG below pkr, On/Off tool and X-nipple above pkr, RIH and set @ 11380' (at least 5' from collar). POOH, RDMO.
10. TIH w/ On/Off tool grapple, 2-3/8" 4.7# N-80 prod tbg, engage On/Off tool, confirm Pkr is set and calculate pup jts needed to have 10 pts tension, disengage On/Off tool, PU 3-5', circulate Pkr fluid down casing (2% KCl, biocide, corrosion inhibitor, and oxygen scavenger). Total csg volume is 328 bbls, but use 20% excess (so +/-394 bbls).
11. Reengage On/Off tool, space out tbg w/ 10 pts tension, ND BOP, NU WH.
12. Hook 5k pump truck up to tbg, pressure up to 2000-3000 psi to rupture disk in Pkr. Release pump truck.
13. Have gas buster on location. Open well to gas buster. Swab with WO Rig if necessary.
14. If well will not flow, make plans to acid stimulate w/ 7.5% KCl and bioballs for diversion.
15. Once well is ready to switch to production facilities, turn over to production.

High Brass Fee #1 – Browning Fed Com #1 Cross Section





Last Updated: 07/31/2014

Updated by: Jason Vining

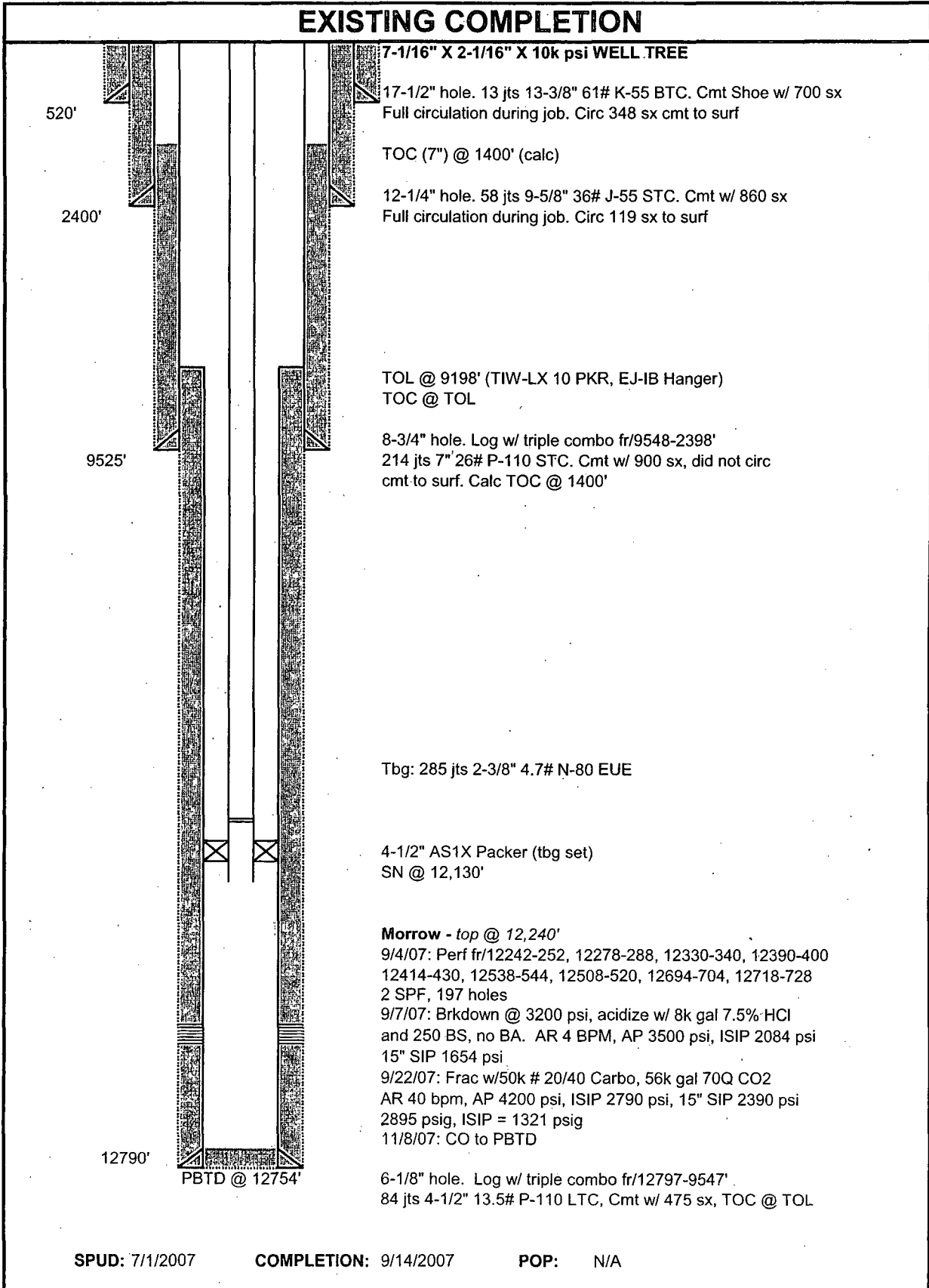
Legend Natural Gas

LEASE: Browning Fed Com
FIELD: Black River
LOCATION: 1980' FSL & 1900' FEL

WELL #: 1
COUNTY: Eddy
LEGAL: Sec 17 24S 28E

API#: 30-015-35638
STATE: NM
KB: _____

EXISTING COMPLETION





Last Updated: 07/31/2014

Updated by: Jason Vining

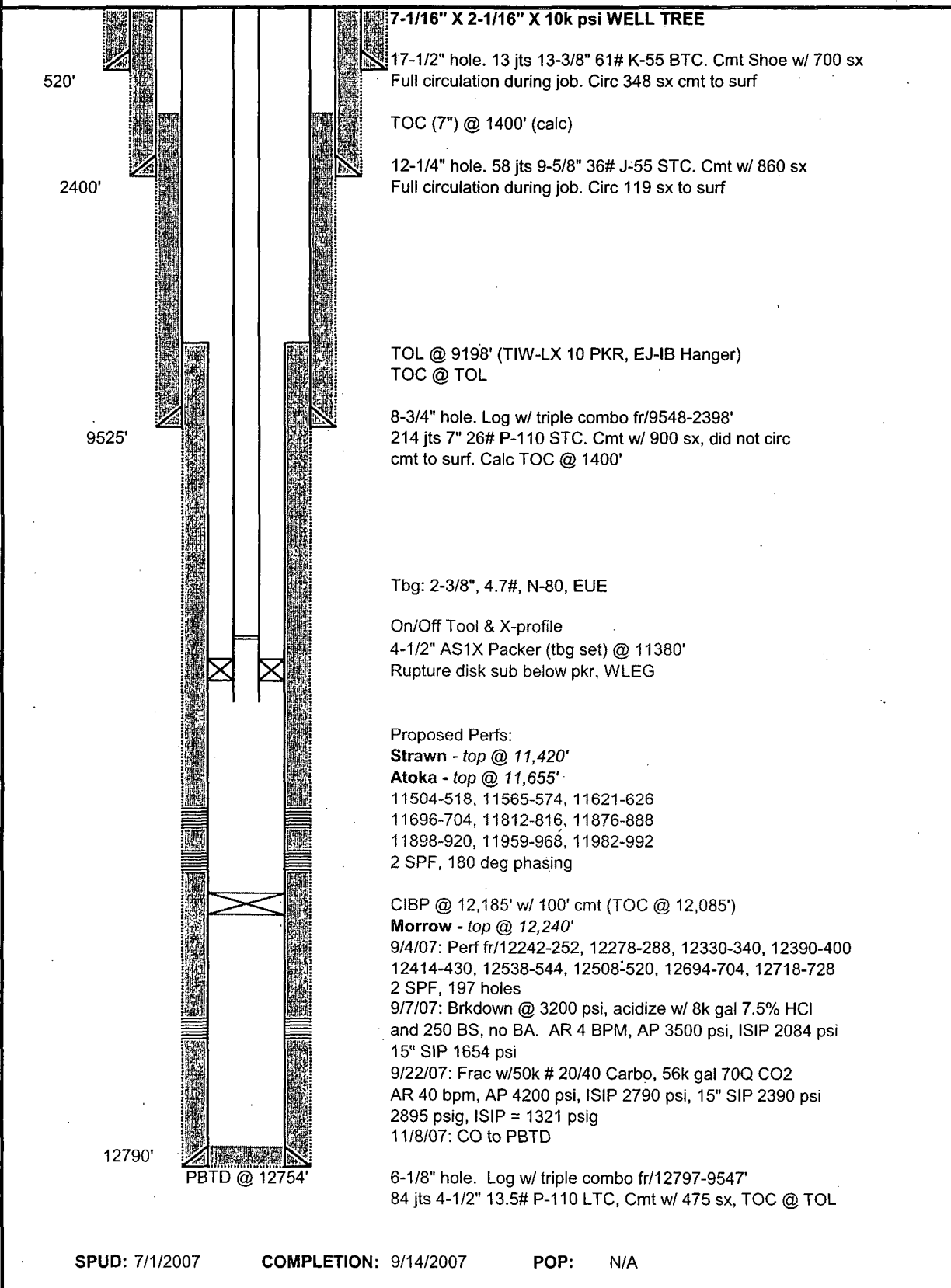
Legend Natural Gas

LEASE: Browning Fed Com
FIELD: Black River
LOCATION: 1980' FSL & 1900' FEL

WELL #: 1
COUNTY: Eddy
LEGAL: Sec 17 24S 28E

API#: 30-015-35638
STATE: NM
KB:

PROPOSED COMPLETION



Conditions of Approval

Legend Natural Gas III, LP Browning Com - 01 API 3001535638, T24S-R28E, Sec 17

September 09, 2014

1. A NMOC Form C-102 "Well Location and Acreage Dedication Plat" with updated information is necessary with the notice of intent package when recompletion changes a well's Pool designation.
2. Before casing or a liner is added, replaced, or repaired prior BLM approval of the design is required. Use notice of intent Form 3160-5.
3. Subject to like approval by the New Mexico Oil Conservation Division.
4. Considering that the well is to be used for commercial water disposal a BLM Right of Way Agreement is to be secured before its use.
5. Notify BLM 575-200-7902 as work begins. Some procedures are to be witnessed. If there is no response, call 575-361-2822, leave a voice mail with the API#, workover purpose, and a call back phone number.
6. Surface disturbance beyond the existing pad must have prior approval.
7. A closed loop system is required. The operator shall properly dispose of drilling/circulating contents at an authorized disposal site. Tanks are required for all operations, no excavated pits.
8. Functional H₂S monitoring equipment shall be on location.
9. 5000 (5M) Blow Out Prevention Equipment to be used. All BOPE and workover procedures shall establish fail safe well control. Ram(s) for the work string(s) used is required equipment. Manual BOP closure system including a blind ram and pipe ram(s) designed to close on all (hand wheels) equipment shall be installed regardless of BOP design. Function test the installed BOPE to 500psig when well conditions allow. Related equipment, (choke manifolds, kill trucks, gas vent or flare lines, etc.) shall be employed when needed for reasonable well control requirements.
10. All waste (i.e. trash, salts, chemicals, sewage, gray water, etc.) created as a result of work over operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area. Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
11. The BLM PET witness is to run tbg tally and agree to cement volumes and placement. Sample each plug for cement curing time and tag and/or pressure test as requested by BLM PET witness.
12. Set cement plugs to cover a minimum of 100ft plus 10ft for every 1,000ft from the bottom of the plug, rounding the number of necessary sacks up to the nearest 5 sacks. Never use less

- than 25sx. Examples: A cement plug set at 8000 in 7" casing would require a min of 35sx. A 25sx plug in 5 1/2" casing should cover 250ft, which may exceed 100ft plus 10ft per 1000ft.
13. Class H > 7500ft & C < 7500ft) cement plugs(s) will be necessary. For any plug that requires a tag or pressure test a minimum WOC time of 4 hours(C) & 8 hours(H) is recommended. Formation isolation plugs of Class "C" to be mixed 14.8#/gal, 1.32 ft³/sx, 6.3gal/sx water and "H" to be mixed 16.4#/gal, 1.06ft³/sx, 4.3gal/sx water.
 14. Minimum requirement for mud placed between plugs is 25 sacks of salt water gel per 100 barrels in 9 lb/gal brine.
 15. Because of the proximity of the bottom proposed perforation (11920) to the top of the Morrow Formation at 12140, **a top of productive formation plug will not be required until these lower perms are abandoned.**
 16. A CIBP set at 12192 capped with 50' of Class H via dump bailer will be accepted until the proposed perms are abandoned. **At that time a cement plug that will conform to paragraphs 12 through 15 of this set of COAs will be required. Note this stipulation in the subsequent sundry for this workover.**
 17. After setting the top plug and before perforating, perform a charted casing integrity test of 500 psig. **Call BLM 575-200-7902 or 575-361-2822 and arrange for a BLM witness of that pressure test.** Verify all annular casing vents are plumbed to the surface and open during this pressure test. Pressure leakoff may require correction for approval. Include a copy of the chart in the subsequent sundry for this workover.
 18. **Provide BLM with an electronic copy (Adobe Acrobat Document) cement bond log record from 12140 or below to the 7" cement top, taken with 0psig casing pressure.** The CBL may be attached to a pswartz@blm.gov email. The CFO BLM on call engineer may be reached at 575-706-2779.
 19. File intermediate **subsequent sundry** Form 3160-5 within 30 days of any interrupted workover procedures and a complete workover subsequent sundry.
 20. Submit the BLM Form 3160-4 **Recompletion Report** within 30 days of the date all BLM approved procedures are complete.
 21. Workover approval is good for 90 days (completion to be within 90 days of approval). A legitimate request is necessary for extension of that date.

An inactive/shut-in well bore is a non-producing completion that is capable of "beneficial use" i.e. production in **paying quantities** or of service use.

22. Submit evidence to support your determination that the well has been returned to active "beneficial use" for BLM approval on the Sundry Notice Form 3160-5 (the original and 3 copies) before 04/02/2015.
23. Should "beneficial use" not be achieved submit for BLM approval a plan for plug and abandonment.

Access information for use of Form 3160-5 "Sundry Notices and Reports on Wells"

NM Fed Regs & Forms - http://www.blm.gov/nm/st/en/prog/energy/oil_and_gas.html

§ 43 CFR 3162.3-2 Subsequent Well Operations.

§ 43 CFR 3160.0-9 (c)(1) Information collection.

§ 3162.4-1 (c) Well records and reports.