Form 3160-5 (August 2007)

## UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

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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.					Lease Serial No.     NMLC064637      If Indian, Allottee or Tribe Name		
·.		7. If Unit or CA/Agreement, Name and/or No.					
SUBMIT IN TRI	PLICATE - Other instruc	ctions on rev	erse side.	/. 1	Onit of CA/Agree	ment, Name and/or No.	
1. Type of Well ( Gas Well ☐ Oth	8. Well Name and No. HENSHAW 23 FEDERAL 1						
2. Name of Operator CHEVRON USA INCORPOR	RILLO CHEVRON.COM						
15 SMITH ROAD			. (include área code) 3-0431 -6679	) 10. F	Field and Pool, or I IENSHAW-WO	Exploratory LFCAMP	
4. Location of Well (Footage, Sec., T	., R., M., or Survey Description	)		· I1.	County or Parish, a	and State	_
Sec 23 T16S R30E NWNE 66	OFNL 1980FEL			E	DDÝ COÚNTY	′, NM	
·							
. 12. CHECK APP	ROPRIATE BOX(ES) TO	) INDICATE	NATURE OF I	NOTICE, REPOF	RT, OR OTHE	R DATA	
TYPE OF SUBMISSION			TYPE O	F ACTION			
Notice of Intent	☐ Acidize	☐ Dee	pen	☐ Production (S	tart/Resume)	■ Water Shut-Off	
· <del>-</del>	☐ Alter Casing	— .	ture Treat	■ Reclamation		□ Well Integrity	
Subsequent Report	Casing Repair		Construction	☐ Recomplete		☐ Other	
☐ Final Abandonment Notice	☐ Change Plans ☐ Convert to Injection	☐ Plug ☐ Plug	and Abandon	☐ Temporarily .☐ Water Dispos			
Attach the Bond under which the wo following completion of the involved testing has been completed. Final A determined that the site is ready for form of the complete of the	d operations. If the operation rebandonment Notices shall be fil- inal inspection.)  repair casing and recompled the procedure and wellbore.	sults in a multipled only after all of lete the above schematic.	e completion or receptivements, include mentioned well ord	ompletion in a new in ling reclamation, have	terval, a Form 3160	0-4 shall be filed once and the operator has	-
14. I hereby certify that the foregoing is	Electronic Submission #	218758 verifie	d by the BLM We RATED, sent to	שעווטווווו ווי עעווווטוווו ווי	em		
	nitted to AFMSS for process	sing by JOHN	NY DICKERSON	on 09/05/2013 (13J	•		
Name(Printed/Typed) CINDY H	MURILLO		Title PERMI	TTING SPECIALI	51	100	_
Signature (Electronic	Submission)	<u>,</u>	Date 09/03/2	013	·	·	
	THIS SPACE FO	OR FEDERA	L OR STATE	OFFICE USE			
Approved By EDWARD FERNAN			TitlePETROLE	UM ENGINEER		Date 05/06/2014	<u>4</u>
Conditions of approval, if any, are attache ertify that the applicant holds legal or eq which would entitle the applicant to cond	Office Carlsbad						

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 to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

## 7/26/2013 Henshaw 23 Federal #1 Casing Repair & Re-complete

Verify that well does not have pressure or flow. If well has pressure, note tubing and casing pressures on wellview report. Bleed down well; if necessary, kill with cut brine fluid (8.6 ppg).

- 1 MIRU pulling unit and related equipment.
- 2 Unseat pump and POOH w/ rods & LD pump (examin rods for wear/pitting/parraffin, do not hot water unless necessary)
- 3 ND WH. NU 7-1/16" 5,000 psi BOP with 2-7/8" pipe rams over blind rams.
- 4 Release TAC and POOH w/ 1 stand. PU 5-1/2" tension pkr on one Jt 2-7/8" tbg and set @ ~25'. Test BOP rams to 250/500 psi
- 5 POOH while scanning w/ 2-7/8" 6.5# L-80 production tbg & LD production equipment + test pkr (strap pipe out of POR PROVAL) the hole to verify depths and note them on Wellview report). Replace any bad jts.
  6 RU Gray wireline. Test lubricator on rack to 500 psi. NU Lubricator. PU quage ring for 5 1/0" 20"
  8,700'. POOH

8,700'. POOH

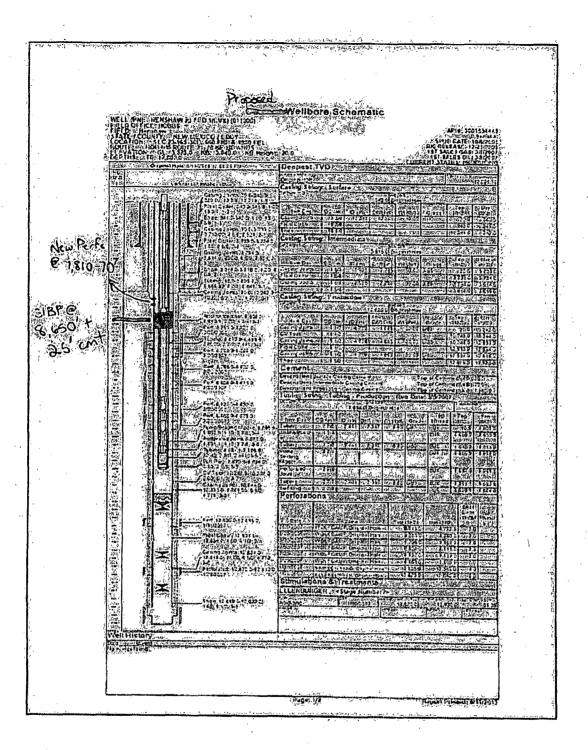
- 7 PU/RIH w/ GR + 5-1/2" CIBP. Correlate to GR on Neutron-Density log dated xxxx. Set CIBP @ 8.650'. Dump bail 25' of class 'H' cmt on top of CIBP. POOH
- 8 Load hole and pressure test to 500 psi. If test fails discuss plan forward on csg leak with RE

- 9 It test is good, PU/RIH w/ CBL logging tools. Log from 8,600' up to inside of 1st intermediate csq @ 3,815'
- 10 POOH/LD logging tools. Review CBL log with RE to determine cmt design and volumes. PU/RIH w/ perforating guns and punch holes for cmt job. POOH/LD guns (check to make sure all shots fired). PU/RIH w/ 5-1/2" CBP and set 10' below punch holes. POOH. ND lubricator. RD Gray
- 11 PU 5-1/2" pkr for cmt job & TIH on 2-7/8" production tbg. Set pkr 100' above perforations
- MIRU service company to pump cement. Pump as per agreed design (surface valves shall remain open during cmt job). Leave 500-1000 psi on wellbore & close well in @ surface. WOC overnight. POOH w/ tbg & LD pkr.
- 13 PU 4-3/4" MT bit + 3-3/4" DC's on 2-7/8" L-80 production tbg & cleanout to 8,000'. Circ well clean
- 14 POOH/LD 2-7/8" tbg + bit + DC's
- 15 RU Gray wireline. NU Lubricator. Test lubricator on rack to 1000 psi
- 16 PU/RIH w/ GR + perforating guns. Correlate to GR on Neutron-Density log . Perforate csg @ (7,810-20') (7,840-50') (7,860-70') w/ 2 spf and 90 degree phasing. POOH/LD guns (check to make sure all shots fired). ND Lubricator. RD Gray
- 18 Change rams from 2-7/8" to 3-1/2". PU 1 jt. w/ 5-1/2" pkr, TIH & test rams to 250/500 psi. PU/TIH w/ pkr + 3-1/2" L-80 workstring. Set pkr @ 7,700'.
- 19 NU frac valve and frac pack on 5k BOP. Load & Pressure csg 500 1000 psi. RDMO PU

- 20 Prep for sand frac job on xx.
- 21 MIRU HAL Hold JSA. Test iron to 6000 psi
- 22 Pump sand frac w/ 2,000 gal 15% HCL + 132,000 lb 20/40 + 28,000 lb 20/40 CRC sand @ 30 bpm, max psi = 5500.
- 23 Record ISIP, 5, 10, & 15 min. pressures. RDMO HAL
- 24 RU flowback equipemnt. Stake lines w/ steel hobbles. Flow back well until it dies.
- 25 MIRU. RD frac pack. Release pkr & POOH/LD 3-1/2" L-80 workstring + pkr. Change rams from 3-1/2" to 2-7/8". PU 1 jt w/ pkr, TIH & test rams to 250/500 psi
- 27 PU 4-3/4" MT bit + 3-3/4" DC's on 2-7/8" L-80 production tbg & cleanout to 8,000'. Circ well clean
- 28 POOH w/ 2-7/8" tbg & LD bit + DC's
- 29 (Discuss production equipment setting with ALCR prior to running) PU production equipment & TIH w/ 2-7/8" 6.5# L-80 production tbg down to 7,880. Set TAC @ 7,550'. ND BOP. NU WH. TIH w/ rods and pump per ALCR. Hang well on. RDMO
- 30 Turn well over to operations

Current Wellbore Schematic

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## **Conditions of Approval**

Sundry dated September 3,2013 Chevron USA Inc. Henshaw 23 Federal - 01 API 3001534448, T16S-R30E, Sec 23 May 1, 2014

- 1. Due to being within the Lesser Prairie Chicken habitat, this workover activity will be restricted to the hours of 9:00am through 3:00am for the period of March 1 through June 15. Exceptions to these restrictions may be granted by BLM's Johnny Chopp <jchopp@blm.gov> 575.234.2227 or Bob Ballard <br/>
  ballard@blm.gov> 575.234.5973.
- 2. Notify BLM 575-200-7902 Eddy Co 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. Note the contact, time, & date in your subsequent report.
- 3. Surface disturbance beyond the existing pad must have prior approval.
- 4. 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.
- 5. Functional H<sub>2</sub>S monitoring equipment shall be on location.
- 6. 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.
- 7. Before Step 7 of the 07/26/2013 procedure: accomplish the following condition of approval requirements 8 through 15.
- 8. Place a 55sx minimum "H" cement plug on the CBP at 12,460'.
- 9. Set an intermediate 45sx minimum "H" cement plug from 10,670. Tag the plug at 10,250' or higher.
- 10. Run a CBL from 8,600' to 3,000' and provide BLM with an electronic copy (Adobe Acrobat Document) cement bond log. The CBL may be attached to a pswartz@blm.gov email. The CFO BLM on call engineer may be reached at 575-706-2779. Determined Top of Cement.
- 11. Locate the unreported DV Tool depth. It should show up on a CBL. Should the tool be below proposed production perforations, set a cement plug from a minimum of 50' below the tool to 50'above. Tag Required

- 12. After setting the (Step 7) CIBP, perform a BLM PET witnessed (charted) casing integrity test of <u>1,000psig</u>. Pressure leakoff may require correction for approval. Include a copy of the chart in the subsequent sundry for this workover.
- 13. If top of cement is determined to be too low, operator shall provide the BLM with a procedure via email on where they plan on perforating and cement amount to attempt to place cement behind the production casing.
- 14. After the cement squeeze (Step 11 and 12 of the 07/26/2013 procedure) done, another CBL may need to be run to determine the success of the cement job. If a CBL is run, provide BLM with an electronic copy (Adobe Acrobat Document) cement bond log.
- 15. Perform another BLM PET witnessed (charted) casing integrity test of <u>5,500psig</u>.
- 16. Operator may proceed with step 13 of the 07/26/2013 procedure.
- 17. 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.
- 18. The BLM PET witness is to run tbg tally and agree to cement placement. Sample each plug for cement curing time and tag and/or pressure test (WOC time of 4 hours recommended) as requested by BLM PET witness.
- 19. Class H > 7500ft & C < 7500ft) cement plugs(s) will be necessary. The minimum pumped volume of 25 sacks of cement slurry is to exceed a 100ft cement plug across the drilled wellbore. Add 10% to the 100ft slurry volume for each 1000ft of plug depth. 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 15.6#/gal, 1.18ft³/sx, 5.2gal/sx water.
- 20. Minimum requirement for mud placed between plugs is 25 sacks of salt water gel per 100 barrels in 9 lb/gal brine.
- 21. File intermediate **subsequent sundry** Form 3160-**5** within 30 days of any interrupted workover procedures and a complete workover subsequent sundry.
- 22. Submit the BLM Form 3160-4 **Recompletion Report** within 30 days of the date all BLM approved procedures are complete.
- 23. Workover approval is good for 100 days (completion to be within 100 days of approval). A legitimate request is necessary for extension of that date.

Access information for **use of Form 3160-5** "Sundry Notices and Reports on Wells" NM Fed Regs & Forms - <a href="http://www.blm.gov/nm/st/en/prog/energy/oil">http://www.blm.gov/nm/st/en/prog/energy/oil</a> 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.