Form 3160-5 (March 2012)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an

FORM APPROVED OMB No. 1004-0137 Expires: October 31, 2014

5. Lease Serial No. NMLC031696A

6. If Indian, Allottee or Tribe Name

abandoned well. Use Form 3160		·
SUBMIT IN TRIPLICATE -	Other instructions on page 2.	7. If Unit of CA/Agreement, Name and/or No.
1. Type of Well Soil Well Gas Well Other	DEC 3 1 2012	8. Well Name and No. SEMU 146
2. Name of Operator ConocoPhillips Company	DECEIVED.	9. API Well No. 30-025-34977
3a. Address	3b. Phone No. (include area code)	10. Field and Pool or Exploratory Area
P. O. Box 51810 Midland TX 79710	(432)688-9174	Skaggs; Grayburg
4. Location of Well Footage, Sec. T.R.M., or Survey Desc. ULF, 1980' FNL & 1830' FWL, Sec 25, 20	ription) S, 37E	11. County or Parish, State LEA NM
12. CHECK THE APPROPRIA	TE BOX(ES) TO INDICATE NATURE OF N	JOTICE, REPORT OR OTHER DATA
TYPE OF SUBMISSION	TYPE OF	ACTION
X Notice of Intent Acidize Alter Casing Casing Repair	Deepen	Production (Start/Resume) Water Shut-Off Reclamation Well Integrity Recomplete Other
☐ Change Plans ☐ Final Abandonment Notice ☐ Convert to Inje	Plug and Abandon Plug Back	Temporarily Abandon Water Disposal
the proposal is to deepen directionally or recomplete hori Attach the Bond under which the work will be performed following completion of the involved operations. If the	izontally, give subsurface locations and measural or provide the Bond No. on file with BLM/Bloperation results in a multiple completion or reasonable filed only after all requirements, include Skaggs; Grayburg (57380) pool. If dump bailer is used, tag cmt complete the control of the control	ap afterward).
Attached is the procedures and the C-102. SUBJECT TO LIKE APPROVAL BY ST	3 .	SEE ATTACHED FOR CONDITIONS OF APPROVAL
14. I hereby certify that the foregoing is true and correct. Name ((Printed/Typed)	

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would

Title Staff Regulatory Technician

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.

(Instructions on page 2)

entitle the applicant to conduct operations thereon

Rhonda Rogers

JAN 0 8 2013

Chin

District I PO Box 1980, Hobbs. NM 88241-1980

District II
PO Drawer DD, Artesia, NM 88211-0719
District III
1000 Rio Brazos Rd. Aztec, NM 87410
District IV
PO Box 2088, Santa Fe. NM 87504-2088

State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION PO Box 2088 Santa Fe, NM 87504-2088 Form C-1

Revised February 21, 19

instructions on b

Submit to Appropriate District Off

State Lease - 4 Cop

Fee Lease - 3 Cop

AMENDED REPO

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4 Property 1 340	Code				5 Pro	perty Name	6/Well Number #146				
7 OGRID No		/	ma	a Ph		erator Name	Λ <i>m</i>			9 E	evation
$L \propto L / \delta$	1 - [correct.	CM.4_0	10 Surfa	ace Location	an	 		<u>.</u>	3519'
UL, or lating,	Section	Township	Range	Lat lan	Feet from th		F	ed from the	Essi/We	at line	County
F	- 25	208	37E		1980	North		1830	We	st	Lea
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12 Dedicated Acres	13 Jain	i or infil 14	Consolidation	on Code 15	Order No.					****	
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SEMU 146 API#: 30-025-34977 Hardy North (Tubb-Drinkard) Field Lea County, New Mexico

Currently a Blinebry/Tubb producer with low production. It is being review for a recompletion to the Grayburg. The Grayburg formation became a subject of interest after the initial success of the SEMU #151 Grayburg recompletion.

WELL CATEGORY, BOP CLASS AND EXCEPTIONS

Well Category One:

H2S:

. 0 ppm.

Well Rate:

<u>H2S</u> <u>ROE- ft.</u> 100 ppm 0 500 ppm 0

BOPE Class One: Hydraulic BOP recommended per Projects Group.

PROCEDURE

- 1. Prior to service unit MI & RU, dump 20 bbl xylene down 2-7/8" x 5-1/2" annulus. Pump back xylene (contact time: 7 2 hrs at current surface displacement of 79 BPD). Test anchors. Last well service 2.13.2003.
- 2. Spot 6 clean 500 bbl frac tanks. Load tanks w/ fresh water prior to frac date. Water to be biocide-treated by Service Company.
- 3. MI & RU service unit. Un-seat pump. POOH w/ rods & pump. ND well. NU hydril 1 X 7-1/16" 5K Blowout Preventer (Double BOP: blind ram & pipe ram) and environmental tray . Scan 2-7/8", 6.5# L-80 production tbg out of hole.
- 4. The following is a summary of the current well configuration:

Spud Date: 9.29.00 Rls Date: 10.19.00	Depti	h RKB	Elev.: 3519 KB; 3530 GL (KB - GL: 11 ft.)
	top	btm	
8-5/8",8.097, 24#, J-55	11	1511_	Lead: 480 Sxs , Class C @ 12.7 ppg
			Tail: 195 sxs, Class C @ 14.8 ppg
		٠.	TOC @ Surface
5-1/2", 17# J55 , Hole: 7 7/8"	11_	4307	1st Stage :
5-1/2", 17# K55 , DV tool	4307	4309	Lead: 235 sxs, class C @ 12.7 ppg Tail: 620 sxs , Class C @ 14.8 ppg
5-1/2", 17# J55	4309	7614	2 nd Stage:
5-1/2", 17# K55 , Float Collar	7614	7615	Lead: 700 sxs, Class C @ 12.7 ppq.
5-1/2", 17# J55	7615	7699	Lead. 100 3x3, 01233 0 @ 12.1 ppg.

5-1/2", 17# K55 , Float Shoe	7699	7700	Returns to surface.
Mud weight : 10.1 ppg @ TD (7700')			
PBTD @ 7614 Tagged Cement.			
Bottom Up:			
ABO Perforated Intervals	7100	7106	11.30.00: Perforate @ 2 spf
Gun: 4" HSC csg guns, 60 deg, 41" diam, 24" Penetration	7125	7134	11.30.00: Perforate @ 2 spf
TUBB Perforated Intervals Gun: 4" HSC csg guns, 60 deg, .41"	<u> </u>		
diam, 24" Penetration	6490	6510	12.06.00: Perforate @ 2 spf
	6514	6518	12.06.00: Perforate @ 2 spf
	6521	6531	12.06.00: Perforate @ 2 spf
	6555	6564	12.06.00: Perforate @ 2 spf
	6603	6610	12.06.00: Perforate @ 2 spf
·	6621	6624	12.06.00: Perforate @ 2 spf
	6642	6647	12.06.00: Perforate @ 2 spf
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Tops	· · · · · · · · · · · · · · · · · · ·	MD
Tansil	······································	2560
Yates		2704
Seven	Rivers	2954
Queen		3520
Penros	е	3646
Graybu	rg .	3780
Sạn Ar	dres	4012
Glorieta	a	5282
Blinebr	y	5896
Tubb		6400
Drinkar	d	6724
Abo		7026

5. PU & RIH w/ 2-7/8", 6.5#, L-80 work string tbg w/ 4-3/4" bit & 5-1/2", 17# csg scraper to 7614. Circulate bottoms up. Well Capacity w tubing 160 bbl. POOH with WS and bit.

- 6. RIH w/ packer & CIBP-1. Set CIBP-1 @ 7050. Pressure test against CIBP @ 2500 # .POOH w/ tbg and packer. Spot 35 ft of cement on top of CIBP (if dump bailer is to be used tag cement cap afterwards).
- 7. RIH w/ packer & CIBP-2. Set CIBP-2 @ 6440. Pressure test against CIBP @ 2500 #. POOH w/ tbg and packer. Spot 35 ft of cement on top of CIBP (if dump bailer is to be used tag cement cap afterwards).
- 8. RU SLB. NU lubricator & test @ 500#.

Perforate following intervals at 3 spf @ 60-degree phasing w/ 3-3/8", HSD Power Jet 3406, HMX, 22.8 gm. (EHD: 0.37 in.; Penetration: 37 in.)...

	top	btm	ft.	SPF	Perfs
Grayburg	3858	3864	6	3	18
	3888	3896	8	3	24
	3919	3921	2	3_	6 -
	3922	3925	3	3	9
	3930	3935	5	3_	. 8
	3955	3958	3	3	9
	3961	3968	7	3	21
	3975	3979	4	3	12
	3994	4005	11	3	33
	4006	4009	3	3	9
,			52		156

Note: collars recorded on Baker Atlas CBL of 09.29.00; KB - GL: 11 ft.):

Collar	Collar-Collar
3208	
3250	42
3292	. 42
3332.5	40.5
3374.5	42
3416.5	42
3458.5	42
3500	41.5
3536	36
3578	42
3620	42
3662	42
3702	40
3744	42
3786	42
3824	38
3860	36

1 1	l
3896	36
3938	42
3978.5	40.5
4020	41.5
	•

9. RIH w/ tbg, PKR & RBP. Acidize Grayburg perforations w/ total 156 bbl (6552 gal) 15% NE Fe HCl:

Acidize Gross Interval:

- a. Set RBP @ 4100
- b. Pull EOT to 3830. Pump 15% NE Fe HCl using 1.1 SG, 5/8" bio balls followed by 4.3 bbl 2% KCl.
- c. SD and allow well to equalize.
- e. Pump w/ 23 bbl 2% KCl to flush to bottom perf.
- f. Record ISIP, SITP(5 min), SITP(10 min) & SITP(15 min).

POOH w/ tbg, PKR .LD 2 7/8" Tubing.

10. PU & RIH w/ 3-1/2", 9:3#, N-80 tbg w/ PKR (5-1/2", 17#). Test tbg @ 8500# while RIH (3-1/2", 9.3#, N-80 Internal Yield Prs: 10,160#).

Set PKR @ 3750 Test 3-1/2" x 5-1/2" annulus & PKR @ 500#.

11. RU SLB. Set treating line pop-off to release @ 8500#.

Set pump trips @ 8000#.

Install spring-operated relief valve on csg-tbg annulus. Pre-set @ 500#. Load 3-1/2" x 5-1/2" annulus. Note annulus fills volume. Place 200# on csg. Test surface lines @ 9000#.

Frac 3858-4009 down 3-1/2", 9.3#, N-80 tbg w/ 89,000 gal YF120ST w/ 68,250# 20/40 Brown sand & 57,750# resin-coated 20/40 Brown sand. Mark flush @ 1#. Flush w/ 1378gal WF110 (capacity to uppermost perforation: 1408 gal). Anticipated treating rate: 30 BPM @ 6000#:

			, —			· ·						· · · · · · · · · · · · · · · · · · ·		
				Clean Vo			Proppant			Slurry Vol			Pump Time @ 30 BPM	
	Fluid	Proppant	gal	<u>bbl</u>	cum bb!	ppg	<u>lbs</u>	cum lbs	gai	bbl	cum bbl	min.	cum min.	
Pad	YF120ST		35000	833.3	833.3	0.00	0	0	35000	833.3	833.3	27.8	27.8	
Stage	YF120ST	20/40 Brown	3000	71.4	904.8	0.25	750	750	3034	72.2	905.6	2.4	30.2	
Stage	YF120ST	20/40 Brown	3000	71.4	976.2	0.50	1500	2250	3068	73.0	978.6	2.4	32.6_	
Stage	YF120ST	20/40 Brown	3000	71.4	1047.6	0.75	2250	4500	3102	73.9	1052.5	2.5	35.1	
Stage	YF120ST	20/40 Brown	3000	71.4	1119.0	1.00	3000	7500	3136	74.7	1127.1	2.5	37.6	
Stage	YF120ST	20/40 Brown	3000	71.4	1190.5	1.25	3750	11250	3170	75.5	1202.6	2.5	40.1_	
Stage	YF120ST	20/40 Brown	3000	71.4	1261.9	1.50	4500	15750	3204	76.3	1278.9	2.5	42.6	
Stage	YF120ST	20/40 Brown	3000	71.4	1333.3	1.75	5250	21000	3238	77,4	1356.0	2.6	45.2	
Stage	YF120ST	20/40 Brown	3000	71.4	1404.8	2.00	6000	27000	3272	77.9	1433.9	2.6	47.8	
Stage	YF120ST	20/40 Brown	3000	71.4	1476.2	2.25	6750	33750	3306	78.7	1512.6	2.6	50.4	
Stage	YF120ST	20/40 Brown	3000	71.4	1547.6	2.50	7500	41250	3340	79.5	1592.1	2.7	53.1	
Stage	YF120ST	20/40 Brown	3000	71.4	1619.0	2.75	8250	49500	3374	80.3	1672.4	2.7	55.7°	
Stage	YF120ST	20/40 Brown	3000	. 71.4	1690.5	3.00	9000	58500	3408	81.1	1753.6	2.7	58.5	
Stage	YF120ST	20/40 Brown	3000	71.4	1761.9	3.25	9750	68250	3442	81.9	1835.5	2.7	61.2	

Stage	YF120ST	RC 20/40 Brown	3000	71.4	1833.3	3.50	10500	78750	3476	82.8	1918.3	. 2.8	63.9 [′]
Stage	YF120ST	RC 20/40 Brown	3000	71.4	1904.8	3.75	11250	90000	3510	83.6	2001.8	2.8	. 66.7
Stage	YF120ST	RC 20/40 Brown	3000	71.4	1976.2	4.00	12000	102000	3544	84.4	2086.2	2.8	69.5
Stage	YF120ST	RC 20/40 Brown	3000	71.4	2047.6	4.00	12000	114000	3544	84.4	2170.6	2.8	72.4
Stage	YF120ST	RC 20/40 Brown	3000	71.4	2119.0	4.00	12000	126000	3544	84.4	2255.0	2.8	75.2
Flush	<u>WF110</u>		1400	. <u>33.3</u>	2152.4	<u>o</u>	<u>0</u>	126000	1400	. 33.3	2288.3	1.1	<u>76.3</u>
			90400	2152			126000		96108	2288		76.3	

Report ISIP, SITP (5 min), SITP (10 min) & SITP (15 min). RD SLB. SDON.

- 12. SION to allow resin-coated sand to cure. Flow back well until dead. POOH & LD 3-1/2", 9.3#, N-80 frac string & PKR.
- 13. RIH. w / 2 7/8". NDBOP. NUWH and run with rods. Space pump, hang well, load tubing and check pump action. RDMO. Handover to Operations.

	Capa	city	Internal I	Diam. : in.	Internal Yield (Burst): psi		
	bbl / ft	gal /ft	nom.	· drift	100%	80%	
2-7/8", 6.5#, J-55	0.00579	0.2431	2.441	2.347	7260	5808	
3-1/2", 9.3#, N-80	0.0087	0.3652	2.992	2.867	. 10160	8128	
5-1/2", 17#, J-55	0.02324	0.9764	4.892	4.767	5320	4256	
2-7/8" x 5-1/2", 17#	0.0152	0.6392					
3-1/2" x 5-12/", 17#	0.0113	0.4766					

Conditions of Approval

Conoco Phillips Company SEMU 146 API 30-025-34977 T20S-R37E, Sec 25 December 27, 2012

Notify BLM at 575-393-3612 a minimum of 24 hours prior to commencing work.

Work to be completed by April 1, 2013. An extension can be submitted if necessary.

- 1. Recompletion not in current Plan of Development (POD) dated 2/28/2012.
- 2. Operator shall indicate on POD their plans to further develop the Grayburg formation.
- 3. A commercial well determination shall be done on this well after 6 to 8 months of production from the Grayburg formation.
- 4. CIBP to be set at 7050' (50' above the top perforation). A minimum of 35' of Class C cement shall be placed on top of the CIBP. Tag required.
- 5. CIBP to be set at 6440' (50' above the top perforation). A minimum of 35' of Class C cement shall be placed on top of the CIBP. Tag required.
- 6. Balanced cement plug shall be set from 4257'- 4359' across the DV tool.
- 7. 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

 ballard@blm.gov> 575.234.5973.
- 8. Functional H₂S monitoring equipment shall be on location.
- 9. Subject to like approval by the New Mexico Oil Conservation Division.
- 10. Notify BLM 575-200-7902 before plug back procedures. The procedures are to be witnessed. If no answer, leave a voice mail with the API#, workover purpose, and a call back phone number. If there is no response, 575-361-2822. Note the contact, time, & date in your subsequent report.
- 11. Surface disturbance beyond the originally approved pad must have prior approval.
- 12. 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.

- 13. A minimum of 3,000 (3M) BOPE shall be used. All blowout preventer (BOP) and related equipment (BOPE) shall comply with reasonable well control requirements. A two ram system with a blind ram and a pipe ram designed for the size of the work string shall be adequate. Tapered work strings will require an additional pipe ram. The manifold shall comply with Onshore Oil and Gas Order #2 Attachment I (3M) Diagrams of Choke Manifold Equipment). The accumulator system shall have an immediately available power source to close the rams and retain 200 psi above pre-charge. The pre-charge test shall follow requirements in Onshore Order #2.
- 14. 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.
- 15. 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.
- 16. Class H > 7,500' & Class C < 7,500') cement plugs(s) will be necessary. The minimum pumped volume of 25 sacks of cement slurry is to exceed a 100' cement plug across the drilled wellbore. Add 10% to the 100' slurry volume for each 1,000' of plug depth when calculations indicate the need. 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.
- 17. Minimum requirement for mud placed between plugs is 25 sacks of salt water gel per 100 barrels in 9 lb/gal brine.
- 18. File intermediate **subsequent sundry** Form 3160-5 within 30 days of any interrupted workover procedures and a complete workover subsequent sundry. File the subsequent sundry for the frac separately if it is delayed as much as 20 days.
- 19. Submit the BLM Form 3160-4 Completion Report within 30 days of the date all BLM approved procedures are complete. Include all formation tops.
- 20. 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 05/10/2013.
- 21. Should "beneficial use" not be achieved submit for BLM approval a plan for plug and abandonment.

JAM 122712

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 3 160.0-9 (c)(1) Information collection.

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