Form 3160-5 (August 2007)

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

OCD Hobbs	OCD	Hobbs	
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FORM APPROVED OMB NO. 1004-0135 Expires: July 31, 2010

HOBBSOOD

Lease Serial No. NMNM94187

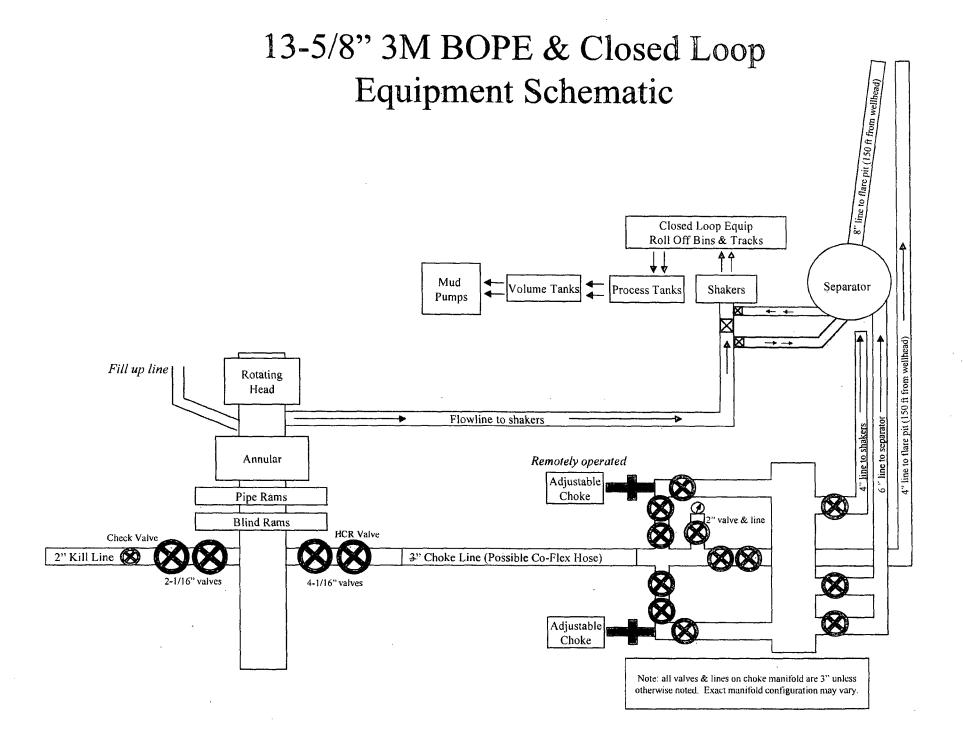
Do not use ti	NOTICES AND REPOnis form for proposals to tell. Use form 3160-3 (AP	drill or to re-enter an	DEC 2	6 If Indian Allottee	or Tribe Name	
SUBMIT IN TR	IPLICATE - Other instru	ctions on reverse side		7. If Unit or CA/Agre		nd/or No.
1. Type of Well	···			8. Well Name and No. HORNED VIPER	20 EEDEDAL	011
2. Name of Operator	<del></del>	DAVID H COOK		9. API Well No.	20 FEDERAL	. ZH
DEVON ENERGY PRODUC	TION CO Efficient david.cook	@dvn.com		30-025-41914-0	00-X1	
3a. Address 333 WEST SHERIDAN AVE OKLAHOMA CITY, OK 7310	02	3b. Phone No. (include are Ph: 405-552-7848	ea code)	10. Field and Pool, or BRINNINSTOO		<del>-</del>
4. Location of Well (Footage, Sec.,	T., R., M., or Survey Description	)		11. County or Parish,	and State	
Sec 20 T23S R33E SWSW 2 32.282988 N Lat, 103.60289	3 W Lon	/		LEA COUNTY,	NM	
12. CHECK APP	ROPRIATE BOX(ES) TO	O INDICATE NATURE	OF NOTIC	E, REPORT, OR OTHE	R DATA	
TYPE OF SUBMISSION		TY	PE OF ACTION	ON ·	<del></del>	
Notice of Intent	☐ Acidize	□ Deepen	□ Pro	oduction (Start/Resume)	☐ Water S	hut-Off
Notice of Intent  ■ Notice of Intent	☐ Alter Casing	☐ Fracture Treat	☐ Re	clamation	■ Well Int	egrity
☐ Subsequent Report	□ Casing Repair	■ New Construction	on 🗖 Re	complete	🛛 Other	
☐ Final Abandonment Notice	☐ Change Plans	Plug and Aband	on 🗖 Te	mporarily Abandon		
	Convert to Injection	Plug Back	□ W:	ater Disposal		
If the proposal is to deepen direction 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 a Devon energy requests to use be tested per Onshore Order requirements for a maximum must be tested. Devon propose will only be tested when instal preventer (BOP) and related a shall be 3000 (3M) psi. Wellhaperformed by a third party, the does not exceed the maximum for the initial BOP test. FMC volume for the lower flange will be tested.	ark will be performed or provide of operations. If the operation rebandonment Notices shall be file in the inspection.)  The FMC uni-head system. A #2 after installation on the of 30 days. If any seal subses using a multi-bowl welled on the surface casing equipment (BOPE) require ead will be installed by FMC in temperature of the seal. will install a solid steel body termediate casing. After instead to 5M, as shown on the standard provided to 5M, as shown on the standard provided the seal.	the Bond No. on file with BL sults in a multiple completion and only after all requirements, a multibowl wellhead is be surface casing which we ject to test pressure is being a seembly (FMC U Minimum working pressed for drilling below the seemonator the temperature of the pack-off to completely stallation of the pack-of	M/BIA. Require or recompletion including reclaims used. Till cover testing the sylmi-head). This ure of the blourface casing the welding is re to verify the install the testiolate the f, the pack-of	ed subsequent reports shall be in a new interval, a Form 316 mation, have been completed, at the BOP will ng stem is assembly owout ATTACHI CONDITIONS at plug	filed within 30 0-4 shall be file and the operator	days d once r has
	#2 Electronic Submission For DEVON ENER mitted to AFMSS for proces	GY PRODUCTION CO LP ssing by JENNIFER MASO	, sent to the h DN on 12/15/2	łobbs	1.0	¥)
Name(Frinted Typed) DAVID H	COOK	This he	GULATURI	SPECIALIST		<del></del>
Signature (Electronic S	Submission) .	Date 12	/11/2014	APPROVE	.D	
	THIS SPACE FO	R FEDERAL OR STA	ATE OFFIC	E USE,		
Approved By onditions of approval, if any, are attache	d. Approval of this notice does	Title		DEC 1 5 20	A Parel	May 1
ertify that the applicant holds legal or equalified would entitle the applicant to condu	nitable title to those rights in the act operations thereon.	subject lease Office	12	CARLS 600 FIELD OF	-HUL	
itle 18 U.S.C. Section 1001 and Title 43				to make to any department or a	agency of the U	mied

#### Additional data for EC transaction #284944 that would not fit on the form

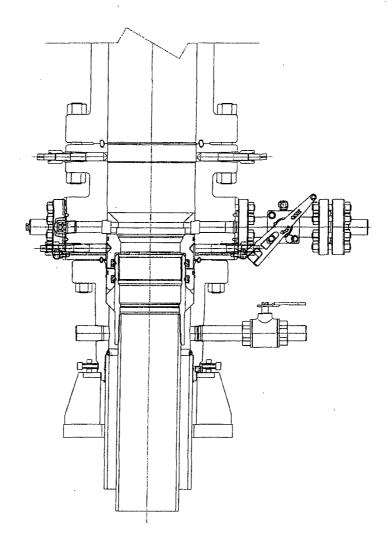
#### 32. Additional remarks, continued

pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted. Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating. Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2. After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the FMC Uni-head wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2. After running the 9-5/8' intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 3M will already be installed on the FMC Uni-head. The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 3,000 psi WP.

See attached BOP and multi-bowl schematics.



### 45MG Technologies



PRIMARY MODE

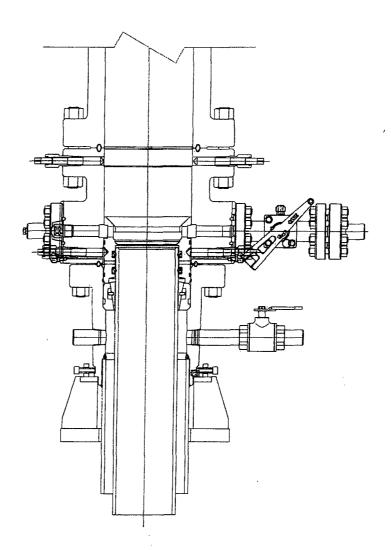
## DEVON ENERGY ARTESIA S.E.N.M

13 3/8 X 9 5/8

QUOTE LAYOUT F18648 REF: DM100161737 DM100151315

	THI VAIL AND CONTIDENTIAL		DESCRIPTION			
1	CONFIDENTIAL AND EXCLUSIVE PROPERTY OF FMC TECHNOLOGIES AND WAY NOT	A 05-08-13		ORAWN BY		1
	BE REPRODUCED, USED, DISCLOSED, OR MADE PUBLIC IN ANY WARRER PRIOR TO	B 1-22-14		K. VU	05-08-13	
1	EXPRESS WRITTEN AUTHORIZATION BY FMC TECHNOLOGIES. THIS DOCUMENT IS ACCEPTED BY RECIPIENT PURSUANT TO AGREEMENT TO THE FOREGOING, AND	C 5-13-14	SURFACE WELLHEAD LAYOUT	GRAFTING REVIEW		FMC Technologies
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ł	FOR THE USE OR SALE BY MANUFACTURER OR MAY OTHER PERSON			APPROVED BY		DM100161771-2A
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## FMG Technologies



CONTINGENCY MODE

# DEVON ENERGY ARTESIA S.E.N.M 13 3/8 X 9 5/8

QUOTE LAYOUT F18648 REF: DM100161737 DM100151315

PRIVATE AND CONFIDENTIAL	REVISIONS	DESCRIPTION			
THIS DOCUMENT AND ALL THE INFORMATION CONTAINED HEREIN ARE THE CONFIDENTIAL AND EXCLUSIVE PROPERTY OF FMC TECHNOLOGIES AND MAY NOT	A 05-08-13		DRAIN BY		l i
BE REPRODUCED, USED, DISCLOSED, OR MADE PLEATE IN MAY MANNER PRIOR TO EXPRESS WRITTEN AUTHORIZATION BY FMC TECHNOLOGIES, THIS DOCUMENT IS	B 1-22-14		K. VU	05-08-13	<b>FMC</b> Technologies
ACCEPTED BY RECIPIENT PURSUANT TO AGREEMENT TO THE FOREGOING, AND	C 5-13-14	SURFACE WELLHEAD LAYOUT			
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IDENTICAL ARTICLES OR PARTS THEREOF SHALL NOT BE MANUFACTURED FOR THE USE OR SALE BY MANUFACTURER OR MAY OTHER PERSON			APPROVED BY		DMIDDICITTI-OD
WITHOUT THE PRIOR EXPRESS WRITTEN AUTHORIZATION BY FINC TECHNOLOGIES			R. HAMILTON	05-08-13	DWITOOTOTTT ZD

## PECOS DISTRICT CONDITIONS OF APPROVAL

**OPERATOR'S NAME:** | Devon Energy Production Co.

LEASE NO.: NMNM-002386A

WELL NAME & NO.: | Horned Viper 20 Federal 2H SURFACE HOLE FOOTAGE: | 0200' FSL & 1300' FWL

BOTTOM HOLE FOOTAGE | 0330' FNL & 0660' FWL

LOCATION: | Section 20, T. 23 S., R 33 E., NMPM

**COUNTY:** Lea County, New Mexico

API: | 30-025-41914

#### The original COAs still stand with the following drilling modifications:

#### I. DRILLING

#### A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

#### **☐** Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

- 1. A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the Delaware formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM. Operator has stated that they will have monitoring equipment in place prior to drilling out of the surface shoe.
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. If the drilling rig is removed without approval an Incident of Non-Compliance will be written and will be a "Major" violation.
- 3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.

4. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

#### B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time prior to drilling out for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possibility of water flows in the top of salt and Castile.

Possibility of lost circulation in the Rustler and Delaware.

- 1. The 13-3/8 inch surface casing shall be set at approximately 1400 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. If salt is encountered, set casing at least 25 feet above the salt.
  - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

- b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing, which shall be set at approximately 5100 feet, is:
  - ☐ Cement to surface. If cement does not circulate see B.1.a, c-d above.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
  - Cement should tie-back at least 700 feet into previous casing string as proposed by operator. Operator shall provide method of verification. Excess calculates to 23% Additional cement may be required.
- 4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

#### C. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor. If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).

- 3. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 3000 (3M) psi.
  - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
  - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
  - c. Manufacturer representative shall install the test plug for the initial BOP test.
  - d. Operator shall perform the intermediate casing integrity test to 70% of the casing burst. This will test the multi-bowl seals.
  - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
  - b. The tests shall be done by an independent service company utilizing a test plug **not** a **cup or J-packer**.
  - c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
  - d. The results of the test shall be reported to the appropriate BLM office.
  - e. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

#### D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

#### E. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion 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.

**JAM 121514**