Form 3160-5 (August 2007)

UNITED STATES DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB NO 1004-0135
Expires July 31 2010

Expires July 31, 2010

5 Lease Serial No

SUNDRY	NMNM7724 .						
Do not use th abandoned we	6 If Indian, Allottee	or Tribe Name					
SUBMIT IN TRI	7 If Unit or CA/Agreement, Name and/or No						
1. Type of Well Oil Well Gas Well Oth	8 Well Name and No SANTA ELENA 19 FEDERAL 1						
2 Name of Operator APACHE CORPORATION		SORINA L FLORES @apachecorp com		9 API Well No 30-015-40567			
3a Address 303 VETERANS AIRPARK LI MIDLAND, TX 79705	N #3000	3b Phone No (include area code Ph: 432-818-1167 Fx 432-818-1193	2)	10 Field and Pool, or Exploratory 97575757671000000000000000000000000000000			
4 Location of Well (Footage, Sec. 7	., R M or Survey Description)			11 County or Parish, and State			
Sec 19 T16S R30E 1650FNL 32 909700 N Lat, 104 018037	EDDY COUNTY, NM						
12. CHECK APPI	ROPRIATE BOX(ES) TO	INDICATE NATURE OF	NOTICE, R	EPORT, OR OTHE	R DATA		
TYPE OF SUBMISSION	TYPE OF ACTION						
Notice of Intent	☐ Acidize	□ Deepen	☐ Product	ion (Start/Resume)	■ Water Shut-Off		
Alter Casing		☐ Fracture Treat	□ Reclam	ation	■ Well Integrity		
☐ Subsequent Report ☐ Casing Repair		■ New Construction	☐ Recomplete		Other		
☐ Final Abandonment Notice	☐ Change Plans	Plug and Abandon	☐ Plug and Abandon ☐ Temporarily Abandon		Change to Original A PD		
	☐ Convert to Injection ☐ Plug Back ☐		■ Water I	Disposal	• ~		
13 Describe Proposed or Completed Op If the proposal is to deepen direction. Attach the Bond under which the wo	ally or recomplete horizontally, g	ive subsurface locations and meas	ured and true ve	ertical depths of all pertin	nent markers and zones		

BOND# BLM-CO-1463 / NMB000736

APACHE REQUEST TO CHANGE WELL FROM HORIZONTAL TO VERTICAL. ATTACH
C-102 & NEW BOP DIAGRAM

SEE ATTACHED FOR CONDITIONS OF APPR

RECEIVED

NOV 0 2 2012

following completion of the involved operations. If the operation results in a multiple completion or recompletion 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.)

OCT 3 1 2002

BUREAU OF LAND MAN: AGEMENT CARLSBAD FIELD OFFICE

14 I hereby certify	that the foregoing is true and correct Electronic Submission #156850 verifie For APACHE CORPORAT	d by the	e BLM Well Information System ent to the Carlsbad	
Name (Printed/T)	ped) SORINA L FLORES	Title	SUPV DRLG SERVICES	
Signature	(Electronic Submission)	Date	10/30/2012	
	THIS SPACE FOR FEDERA	AL OR	STATE OFFICE USE	
Approved By		Title		Date
certify that the applica	l, if any, are attached Approval of this notice does not warrant or nt holds legal or equitable title to those rights in the subject lease e applicant to conduct operations thereon	Offic	2	

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

Additional data for EC transaction #151629 that would not fit on the form

1;

32. Additional remarks, continued

8-5/8" Surf (100% excess, cmt to surf) Lead: 200sx CI C w/0.25% Defoamer (14.8wt, 1.33yld) Comp Strength: 12hr - 813psi 24hr - 1205psi

5-1/2" Prod (35% excess, cmt to surf) Lead: 200sx CI H 50/50 w/10% Gel + 2# Star seal + 0.25% Defoamer (11.9wt, 2.24yld) Tail: 655sx Cl C w/1% CaCl + 0.25% Defoamer (14.8wt, 1.34yld) Comp Strength: 12hr - 813psi 24hr - 1205psi

Proposed Mud Program:

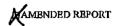
Interval MWppg Visc(sec/qt) Fluid Loss (cc) Mud Type 0-400' 8.6-8.8 28-30 NC FW 400-5550' 9.5-10.2 28-36 NC Brine/Cut Brine

dill

<u>DISTRICT |</u> 1625 N. French Dr., Hobbs, NM 88240 Phono: (575) 393-6161 Fax: (575) 393-0720 DISTRICT II 811 S. First St., Arteslo, NM 88210 Phone: (375) 748-1283 Fax: (575) 748-9720 DISTRICT III 1000 Rto Brazos Rund, Azioc, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 DISTRICT IV 1220 S. St. Francia Dr., Sunta Pc, NM 87505 Phone: (505) 476-3460 Pax: (505) 476-3462

State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

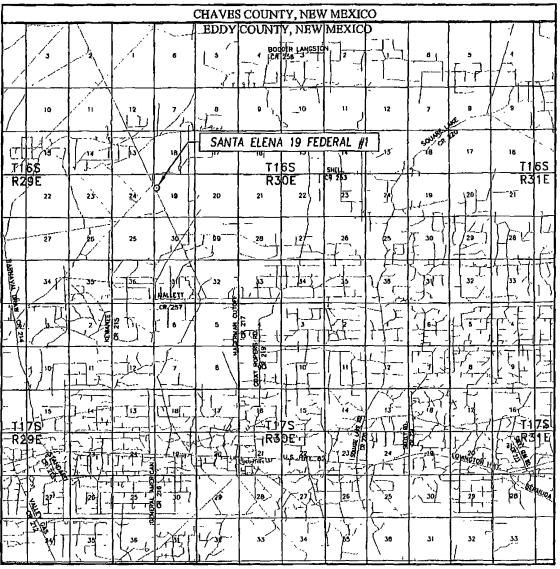


WELL LOCATION AND ACREAGE DEDICATION PLAT

	"	DE DOOM			LOS DEDICI	ATION PLA			
30-015-4		975	Pool Code		+	Fool Name	PAVO Mes	sa: ABO	
Property Code		Properly Name Well Number SANTA ELENA 19 FEDERAL 1							
OGRID No.		Operator Name Blevation							
<u>873</u>	_l		APAC	THE CORPO	DRATION			3740'	
				Surface Locati	ion				
UL or lot No. Section	1		Loi ldn	Feet from the	North/South line	Feet from the	Bast/West line	County	
2 19	16-S	30-E		1650	NORTH	330	WEST	EDDY	
					erent From Surface			Y	
UL or lot No. Section	D Township	Range	Lot [dn	Feat from the	North/South line	Feet from the	ect from the Bast/West line County		
NO ALLOWABLE WILL BIS AS	or Infill G SIGNED TO THIS	Consolidation Co		er No. Rests have been c	ONSOLIDATED OR A N	ION-STANDARD UNIT	'HAS BEEN APPROV	ED BY THE DIVISION	
36.45 AC. SEE DETAIL 36.45 AC.	3737.7'	SURFACE Y=6948 X=596	P7 NME LOCATION B05.3 N 763.1 E	5		I hereby cert complete to t that this orga unleased min proposed bot well at this to of such mine pooling agre	ATOR CERTIF ify that the information is the best of my knowledge nization either owas a vicend interest in the land tom hole location or has cation pursuant to a control or working interest, remant or a computery itered by the division. Lack Lack Lack Lack Lack Lack Lack Lack	herein is true and se and belief, and vorking interest or including the a right to drill this strand with an owner	
		LONG. = 104 LAT. = 32	909700° N .018037' W '54'35" N 4'01'05" W			I bereby certification in the second	Scelal Professional NALD J. E. J. N. M.E. J. 3239	shown on this plot surveys reade by the same is true 1 Surveyor:	

SECTION 19, TOWNSHIP 16 SOUTH, RANGE 30 EAST, N.M.P.M. **NEW MEXICO BDDY COUNTY** 600' 3737.7° 3737.21 PROPOSED WELL PAD NORTHEAST NORTHWEST PAD CORNER PAD CORNER 3736.91 3736.4 140 150 SANTA BLENA 19 FEDERAL#1 ELEV. 3739.8' LAT.=32,909700° N LONG.=104.018037° W LAT,=32°54'35" N LONG.=104°01'05" W SOUTHWEST SOUTHEAST PAD CORNER PAD CORNER. 3741.9 3738.6 45' OF PROPOSED ROAD 3737,5 3740,5' 600' DIRECTIONS TO LOCATION FROM THE INTERSECTION OF U.S. HWY. #82 AND CO. 100 100 200 Feel RD. #217 (HAGERMAN CUTOFF), GO NORTH ON CO. RD. #217 APPROX. 5.0 MILES. TURN LEFT AND GO BEREE Scale: 1"=100" WEST APPROX. 1.4 MILES. TURN RIGHT AND GO *APACHE CORPORATION* NORTHWEST APPROX. 1.2 MILES TO A PROPOSED ROAD SURVEY, FOLLOW SURVEY STAKES EAST APPROX. 45 FEET TO THIS LOCATION. SANTA ELENA 19 FBDBRAL #1 WELL LOCATED 1650 FEBT FROM THE NORTH LINE AND 330 FEET FROM THE WEST LINE OF SECTION 19, PROVIDING SURVEYING SERVICES TOWNSHIP 16 SOUTH, RANGE 30 EAST, N.M.P.M., SINCE 1946 EDDY COUNTY, NEW MEXICO JOHN WEST SURVEYING COMPANY Survey Date: 6/22/11 CAD Date: 10/10/12 412 N. DAL PASO Drown By: AF HOBBS, N.M. 88240 (575) 393-3117 www.jwsc.biz W.O. No.: 12131726 Rev. . Rel. W.O.: 11111361 Sheet 1 of 1 C Abel\2012\COC OPERATING, ILC\Wells

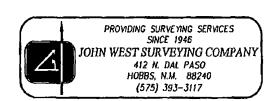
VICINITY MAP



SCALE: 1" = 2 MILES

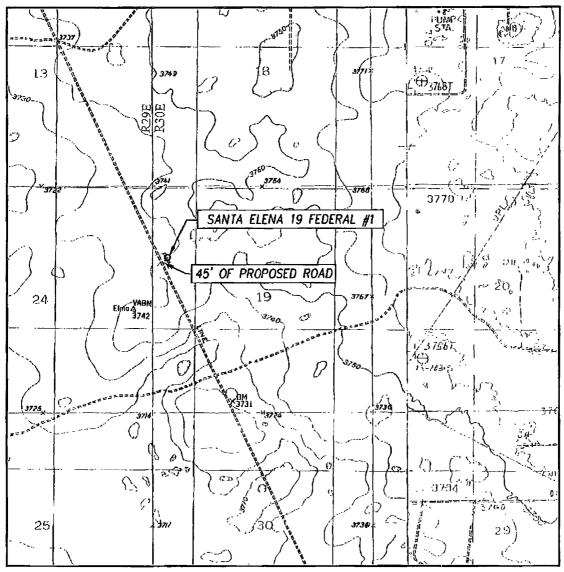
SEC. 19 TWP. 16-S RGE. 30-E
SURVEY N.M.P.M.
COUNTY EDDY STATE NEW MEXICO
DESCRIPTION 1650' FNL & 330' FWL
ELEVATION 3740'
OPERATOR APACHE CORPORATION
LEASE SANTA FIENA 19 FEDERAL

1 1





LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

SEC. 19 TWP. 16-S RGE. 30-E

SURVEY____N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 1650' FNL & 330' FWL

ELEVATION_____ 3740'

OPERATOR APACHE CORPORATION

LEASE SANTA ELENA 19 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP

BASIN WELL, N.M.

CONTOUR INTERVAL: BASIN WELL, N.M. - 10' HENSHAW TANK, N.M. - 10'



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBS, N.M. 88240
(575) 393-3117

DRILLING PLAN: BLM COMPLIANCE (Supplement to BLM 3160-3)

APACHE CORPORATION (OGRID: 873) SANTA ELENA 19 FEDERAL #1

Lease #: NMNM-007724 Projected TD: 5550' GL: 3740'

SHL: 1650' FNL & 330' FWL UL: 2 SEC: 19 T16S R30E EDDY COUNTY, NM

1. GEOLOGIC NAME OF SURFACE FORMATION: Eolian/Pledmond Alluvial Deposits

2. ESTIMATED TOPS OF GEOLOGICAL MARKERS & DEPTHS OF ANTICIPATED FRESH WATER, OIL OR GAS:

Rustler	335'	Grayburg	2378' (Oil)
Salt Top	584'	San Andres	2754' (OII)
Salt Bottom	1048'	Glorieta	4200' (OII)
Yates	1196'	Yeso	4266' (Oll) .
Seven Rivers	1426' (Oil)		
Queen	1961' (Oil)	TD	5550'

Depth to Ground Water:

~ 91'

Fresh water & prospectively valuable minerals, as described by BLM, encountered during drilling, will be recorded by depth & adequately protected. All oil & gas shows within zones of correlative rights will be tested to determine commercial potential. Surface fresh water sands will be protected by setting 8-5/8" csg @ 340' & circ cmt back to surface. All intervals will be isolated by setting 5-1/2" csg to TD & circ cmt to surface.

3. CASING PROGRAM: All casing is new & API approved

HOLE SIZE	DEPTH	OD CSG	WEIGHT	COLLAR	GRADE	COLLAPSE	BURST	TENSION
11"	0-400'	8-5/8"	24#	STC	J-55	1.0	1.21	1.8
7-7/8"	0-5550'	5-1/2"	17#	STC	J-55	1.0	1,21	1.8

4. CEMENT PROGRAM:

A. 8-5/8" Surface: **100% excess cmt; cmt to surface***

<u>Lead</u>: 200 sx Cl C w/ 0.25% Defoamer (14.8 wt, 1.33 yld) <u>Compressive Strengths</u>: 12 hr - 813 psi 24 hr - 1205 psi

B. 5-1/2" Production: **35% excess cmt; cmt to surface**

<u>Lead</u>: 200 sx Cl H 50/50 w/10% Gel + 2# Star seal + 0.25% Defoamer (11.9 wt, 2.24 yld)

Compressive Strengths: 12 hr - 540 psi 24 hr - 866 psi

<u>Tail;</u> 655 sx Cl C w/1% CaCl + 0.25% Defoamer (14.8 wt, 1.34 yld)

Compressive Strengths: 12 hr - 813 psi 24 psi - 1205 psi

The above cmt volumes could be revised pending caliper measurement from open hole lags. For Surface csg: If cmt does not circ to surface, the appropriate BLM office shall be notified & TOC shall be determined as directed by the BLM for the specific set of circumstances. If depth is greater than 100' or water is standing in the annulus, remedial cementing will be done. If no water & TOC tag is less than 100', when 100% excess cmt of the annulus volume is run on the primary job, ready-mix will be used to bring cmt to surface.

5. PROPOSED CONTROL EQUIPMENT

"EXHIBIT 3" shows an 11" 3M psi WP BOP consisting of an annular bag type preventer, middle blind rams, bottom pipe, rams. This BOP will be nippled up on the 8-5/8" surface csg and utilized continuously until TD is reached. The BOP will be tested at 2000 psi {maximum surface pressure is not expected to exceed 2M psi}. BHP is calculated to be approximately 2442 psi. *All BOP's and associated equipment will be tested as per BLM Drilling Operations Order #2. The BOP will be operated and checked each 24 hr period & the blind rams will be operated & checked when the drill pipe is out of the hole. Functional tests will be documented on the daily driller's log. "EXHIBIT 3" also shows a 3M psi choke manifold with a 3" blow down line. Full opening stabbing valve & Kelly cock will be on derrick floor in case of need. No abnormal pressures of temperatures are expected in this well. No nearby wells have encountered any problems.

50°C

6. PROPOSED MUD CIRCULATION SYSTEM: (Closed Loop System)

INTERVAL	MW (ppg)	VISC (sec/qt)	FLUID LOSS (cc)	MUD TYPE
0'-400'	8.6 - 8.8	20-30	NC	FW
400-5550'	9.8 ~ 10.2	28-36	NC	Brine

^{**} The necessary mud products for weight addition and fluid loss control will be on location at all times. In order to run open hole logs & casing, the above mud properties may have to be altered to meet these needs.

7. AUXILIARY WELL CONTROL EQUIPMENT / MONITORING EQUIPMENT:

11" x 3000 psi Double BOP/Blind & pipe ram (3M BOP/BOPE to be used as 2M system)

4-1/2" x 3000 psi Kelly valve

11" x 3000 psi mud cross - H2S detector on production hole

Gate-type safety valve 3" choke line from BOP to manifold

2" adjustable chokes - 3" blow down line

Fill up line as per Onshore Order 2

8. LOGGING, CORING & TESTING PROGRAM:

- A. OH logs: Dual Laterolog, MSFL, CNL, Litho-Density, Gamma Ray, Caliper & Sonic from TD back to 8-5/8" csg shoe.
- 3. Run CNL, Gamma Ray from 8-5/8" csg shoe back to surface.
- C. No cores, DST's or mud logger are planned at this time.
- D. Additional testing will be initiated subsequent to setting the 5-1/2" production casing. Specific intervals will be targeted based on log evaluation, geological sample shows & drill stem tests.

9. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are anticipated. In the event abnormal pressures are encountered, however, the proposed mud program will be modified to increase the mud-weight. There is known presence of H₂S in this area. If H₂S is encountered the operator will comply with the provisions of *Onshore Oil & Gas Order No. 6*. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP: 2442 psi and estimated BHT: 115°.

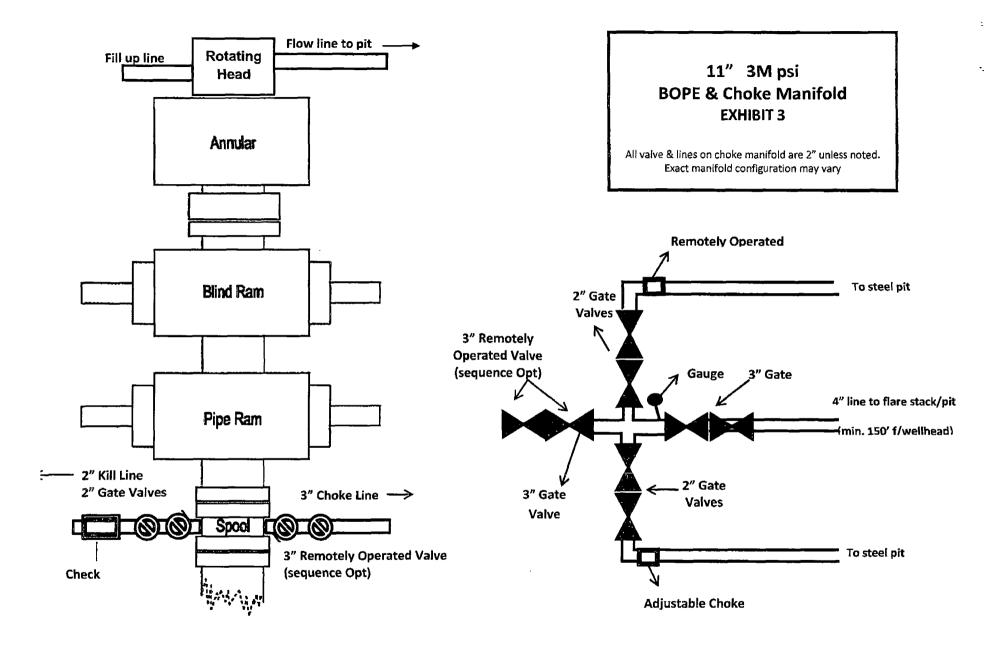
10. ANTICIPATED STARTING DATE AND DURATION OF OPERATIONS:

Road and location construction will begin after & BLM has approved APD. Anticipated spud date will be as soon after Santa Fe and BLM approval and as soon as rig will be available. Move in operations and drilling is expected to take ~10 days. If production casing is run then an additional 90 days will be needed to complete well and construct surface facilities and/or lay flow lines in order to place well on production.

11. OTHER FACETS OF OPERATION:

After running csg, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Loco Hills; Glorieta-Yeso formation will be perforated and stimulated in order to establish production. The well will be swab tested & potentialed as an oil well.





PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME: | Apache Corporation

LEASE NO.: | NM7724

WELL NAME & NO.: | 1H Santa Elena 19 Federal SURFACE HOLE FOOTAGE: | 1650' FNL & 330' FWL

LOCATION: | Section 19, T.16 S., R.30 E., NMPM

COUNTY: Eddy County, New Mexico

I. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

- 1. Although Hydrogen Sulfide has not been reported in the area, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.
- 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 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. 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.).

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.

Possible lost circulation in the San Andres Formation.

- 1. The 11 inch surface casing shall be set at approximately 400 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.
 - a. Effective June 6, 2012, the BLM will no longer approve a tag with 1" to determine cement top. 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
 - 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 7-7/8 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.
- 3. 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

- 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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 2000 (2M) psi. Operator installing 3M testing as 2M
- 3. 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**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

- c. The results of the test shall be reported to the appropriate BLM office.
- d. 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.
- e. 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.

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 103112