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

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.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

5. Lease Serial No.
NMNM65417

6. If Indian, Allottee or Tribe Name

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

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
MARTHA AIK FEDERAL 7H

2. Name of Operator
YATES PETROLEUM CORPORATION
Contact: NAOMI G SAIZ
E-Mail: nsaiz@yatespetroleum.com

9. API Well No.
30-015-40051

3a. Address
105 S. 4TH ST. ARTESIA, NM
88210, NM 88210

3b. Phone No. (include area code)
Ph: 575-748-4211

10. Field and Pool, or Exploratory
DELAWARE

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 11 T22S R31E SENE 1750FNL 200FEL

11. County or Parish, and State
EDDY COUNTY, NM

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

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original A PD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ 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 recomplete 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 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.)

Yates Petroleum Corporation respectively requests permission to change the casing and cement design as per attached.

RECEIVED
OCT 23 2013
NMOCD ARTESIA

SEE ATTACHED FOR CONDITIONS OF APPROVAL

10/24/2013
Accepted for record
NMOCD

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

Electronic Submission #221055 verified by the BLM Well Information System
For YATES PETROLEUM CORPORATION, sent to the Carlsbad
Committed to AFMSS for processing by JOHNNY DICKERSON on 09/26/2013 ()

Name *(Printed/Typed)* NAOMI G SAIZ — Title WELL PLANNING TECH

Signature (Electronic Submission) — Date 09/24/2013

APPROVED
OCT 18 2013
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By _____ Title _____ Date _____

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 entitle the applicant to conduct operations thereon.

Office

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.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Well will be drilled vertically from 4400'-8266' with an 8 ¾" hole. Well will then be kicked off at approximately 7509' and directionally drilled at 12 degrees per 100' with and 8 ¾" hole to 8266' MD (7986' TVD) where hole size will be reduced to 8 ½" and drilled to 12530' MD (7919' TVD) where 5 ½" casing will be set and cemented to surface. Production string will be cemented in two stages with a DV/Packer stage tool at approximately 4500'. Penetration point of the producing zone will remain the same at 1750' FNL and 677' FEL, 11-22S-31E. Deepest TVD in the well will be 7986' in the lateral.
EOC= 7986' TVD
EOL= 7919' TVD

Primary Production Casing:

	0 ft to 12,530 ft			Make up Torque ft-lbs			Total ft = 12,530
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
5.5 inches	17 #/ft	L-80	BT&C	3410	2560	4260	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
6,290 psi	7,740 psi	462 ,000 #		397 ,000 #		4.767	

DV/Packer Stage tool placed approximately at 4500'
Stage I: Lead w/510sx 35/65 PozH (YLD 2 WT 12.5, 11 gal/sk), tail w/870sx PVL (YLD 1.82 WT 13, 9.1 gal/sk) 12,530-4500' 35% Excess
Stage II: Lead w/630sx 35/65 PozC (YLD 2 WT 12.5, 11 gal/sk) tail w/205sx 50/50 PozC (YLD 1.34 WT 14.2, 6.2 gal/sk) 4500'-0' 35% Excess

Contingency Casing Design:
2nd Intermediate: Drilled with an 8 ¾" hole:

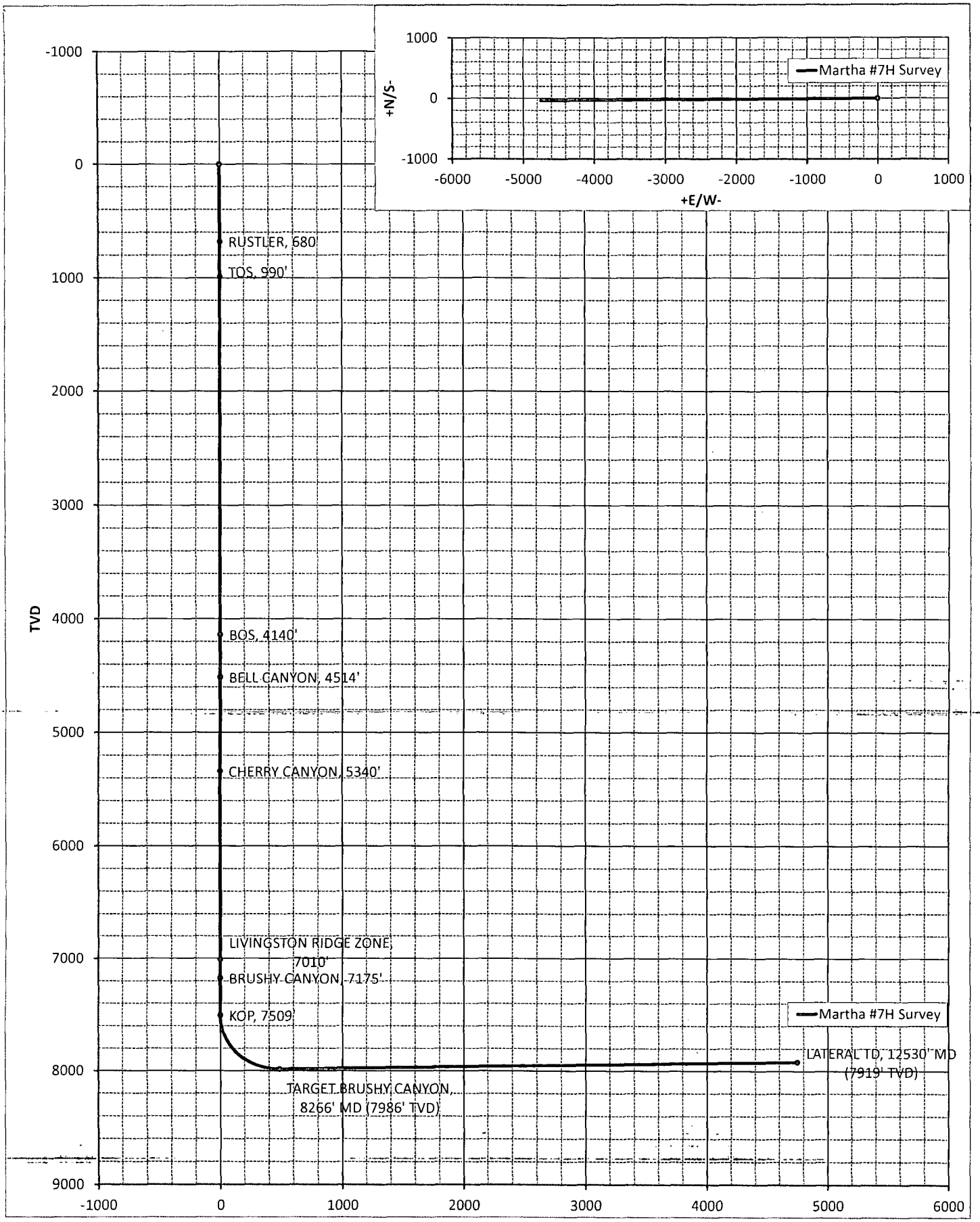
	0 ft to 7,400 ft			Make up Torque ft-lbs			Total ft 7,400
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
7 inches	26 #/Ft	J-55	LT&C	3670	2750	4590	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
4,320 psi	4,980 psi	367 ,000 #		415 ,000 #		6.151	

DV/Packer Stage tool will be placed at approx. 4650' and 6800'
Stagel: Cemented w/90sx 50/50 PozC (YLD 1.34 WT 13, 6.2 gal/sk) 7400'-6800' 35% excess
Stage II: Lead w/90sx 35/65 PozC (YLD 2 WT 12.5, 11 gal/sk) tail w/200sx 50/50 PozC(YLD 1.34 WT 13, 6.2 gal/sk) 6800'-4650' 35% excess
Stage III: Lead w/335sx 35/65 PozC (YLD 2 WT 12.5, 11 gal/sk) tail w/205sx 50/50 PozC (YLD 1.34 WT 14.2, 6.2 gal/sk) 4650'-0' 35% excess

Production: Production hole will be drilled with a 6 1/8" hole:

	0 ft to 12,530 ft			Make up Torque ft-lbs			Total ft = 12,530
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
4.5 inches	11.6 #/Ft	L-80	BT&C	2230	1670	2790	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
6,350 psi	7,780 psi	291 ,000 #		267 ,000 #		3.875	

Stage I: Cemented w/400sx PVL (YLD 1.82 WT 13, 9.1 gal/sk) 12,530'-6900' 35% excess


Martha #7H Survey
+N/S-
+E/W-
1000
0
-1000
-6000
-5000
-4000
-3000
-2000
-1000
0
1000
TVD
-1000
0
1000
2000
3000
4000
5000
6000
7000
8000
9000
RUSTLER, 680'
TOS, 990'
BOS, 4140'
BELL CANYON, 4514'
CHERRY CANYON, 5340'
LIVINGSTON RIDGE ZONE, 7010'
BRUSHY CANYON, 7175'
KOP, 7509'
LATERAL TD, 12530' MD (7919' TVD)
TARGET BRUSHY CANYON, 8266' MD (7986' TVD)
Martha #7H Survey

Operator Co.

Your Co.

Survey/Planning Report

Operator	Yates Petroleum Corp.	Northing		Date	18-Apr-13
Dir. Co.	Yates Petroleum Corp.	Easting		System	2 - St. Plane
Well Name	Martha #7H Survey	Elevation		Datum	1983 - NAD83
Location	Sec. 11, 22S-31E	Latitude		Zone	4302 - Utah Central
Rig		Longitude		Scale Fac.	
Job		Units	Feet	Converg.	

MD	INC	AZI	TVD	+N/S	+E/W	VS@269.57°	BR	TR	DLS
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
680.00	0.00	360.00	680.00	0.00	0.00	0.00	0.00	0.00	0.00
680: RUSTLER, 680'									
990.00	0.00	360.00	990.00	0.00	0.00	0.00	0.00	0.00	0.00
990: TOS, 990'									
4140.00	0.00	360.00	4140.00	0.00	0.00	0.00	0.00	0.00	0.00
4140: BOS, 4140'									
4514.00	0.00	360.00	4514.00	0.00	0.00	0.00	0.00	0.00	0.00
4514: BELL CANYON, 4514'									
5340.00	0.00	360.00	5340.00	0.00	0.00	0.00	0.00	0.00	0.00
5340: CHERRY CANYON, 5340'									
7010.00	0.00	360.00	7010.00	0.01	0.00	0.00	0.00	0.00	0.00
7010: LIVINGSTON RIDGE ZONE, 7010'									
7175.00	0.00	360.00	7175.00	0.01	0.00	0.00	0.00	0.00	0.00
7175: BRUSHY CANYON, 7175'									
7508.58	0.00	269.57	7508.58	0.01	0.00	0.00	0.00	3.59	0.00
7508.58: KOP, 7509'									
7600.00	10.97	269.57	7599.44	-0.06	-8.73	8.73	12.00	0.00	12.00
7700.00	22.97	269.57	7694.91	-0.28	-37.86	37.86	12.00	0.00	12.00
7800.00	34.97	269.57	7782.24	-0.64	-86.21	86.21	12.00	0.00	12.00
7900.00	46.97	269.57	7857.61	-1.13	-151.65	151.66	12.00	0.00	12.00
8000.00	58.97	269.57	7917.72	-1.72	-231.34	231.34	12.00	0.00	12.00
8100.00	70.97	269.57	7959.95	-2.40	-321.78	321.79	12.00	0.00	12.00
8200.00	82.97	269.57	7982.45	-3.13	-419.02	419.04	12.00	0.00	12.00
8266.07	90.90	269.57	7985.98	-3.62	-484.95	484.96	12.00	0.00	12.00
8266.07: TARGET BRUSHY CANYON, 8266' MD (7986' TVD)									
12530.40	90.90	269.57	7919.01	-35.49	-4748.63	4748.76	0.00	0.00	0.00
12530.4: LATERAL TD, 12530' MD (7919' TVD)									

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Yates Petroleum Corporation**
LEASE NO.:	**NMNM065417**
WELL NAME & NO.:	**Martha AIK Federal # 7H**
SURFACE HOLE FOOTAGE:	**1780' FNL & 200' FEL**
BOTTOM HOLE FOOTAGE	**1780' FSL & 330' FWL**
LOCATION:	**Section 11, T. 22 S., R 31 E., NMPM**
COUNTY:	**Eddy County, New Mexico**
API:	**30-015-40051**

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)

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

1. **Due to recent H2S encounters in the salt formation, it is recommended that monitoring equipment be onsite for potential Hydrogen Sulfide prior to drilling out the surface shoe. If Hydrogen Sulfide is encountered, please report measurements 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 are 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. 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. IF OPERATOR DOES NOT HAVE THE WELL SPECIFIC CEMENT DETAILS ONSITE PRIOR TO PUMPING THE CEMENT FOR EACH CASING STRING, THE WOC WILL BE 30 HOURS. 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.

R-111-P potash.
Possible lost circulation in the Delaware and Bone Spring formations.
Possible brine/water flows in the Salado and Castile Groups.

1. The **13-3/8** inch surface casing shall be set **at approximately 750 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface.

    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 is: **(Ensure casing is set in the base of the Castile or the Lamar at approximately 4400')**

☒ Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to potash.**

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:

Operator has proposed DV tool at depth of 4500'. Operator is to submit sundry if DV tool depth varies by more than 100' from approved depth.

a. First stage to DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

b. Second stage above DV tool:

☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

Contingency production casing and liner:

4. The minimum required fill of cement behind the **7** inch production casing is:

Operator has proposed two DV tools at depths of 4650' and 6800'. Operator is to submit sundry if DV tool depths varies by more than 100' from approved depth.

a. First stage to DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

b. Second stage above DV tool:

☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with third stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

c. Third stage above DV tool:

☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

Formation below the 7" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe and the mud weight for the bottom of the hole. Report results to BLM office.

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

5. The minimum required fill of cement behind the **4-1/2** inch production casing is:

☒ Cement should tie-back at least 500 feet into previous casing string. Operator shall provide method of verification.

6. 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.

7. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

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. 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. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.

3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 7 inch intermediate casing shoe shall be **5000 (5M)** psi. **5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.**

4. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In potash areas, 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. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.

    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 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.

    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.

F. WIPP Requirements

The proposed well is located over 330' of the WIPP Land Withdrawal Area boundary. As a result, Yates Petroleum Corporation is requested, but not required to submit daily logs and deviation survey information to the Department of Energy per requirements of the Joint Powers Agreement. Information from this well will be included in the Quarterly Drilling Report. Information will also be provided to the New Mexico Oil Conservation Division after drilling activities have been completed. Any future entry into the well for purposes of completing additional drilling will require supplemental information.

Yates Petroleum Corporation can email the required information to Mr. Mel Balderrama at melvin.balderrama@wipp.ws or fax to his attention at 575-234-6062.

JAM 101813