

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.

5. Lease Serial No.
NMNM99017

6. If Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

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

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

8. Well Name and No.
OSAGE 18 FEDERAL 1H

2. Name of Operator
OXY USA WTP LP
Contact: JENNIFER A DUARTE
E-Mail: jennifer_duarte@oxy.com

9. API Well No.
30-015-41060-00-X1

3a. Address
HOUSTON, TX 77210
3b. Phone No. (include area code)
Ph: 713-513-6640

10. Field and Pool, or Exploratory
N SEVEN RIVERS-GLOR-YESO

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)
Sec 18 T20S R25E SESE 330FSL 660FEL

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

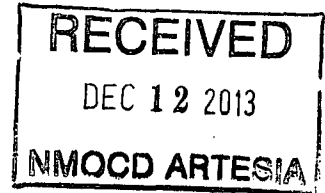
12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Change to Original A
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	PD

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 recompleate 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 recompleation 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.)

Oxy USA respectfully requests approval for the following changes and additions to the drilling plan:

1. Casing design modification, to drill the well with smaller bit sizes: 11" surface hole with 8-5/8" surface casing and 7 7/8" production hole with 5-1/2" production casing. Details are below.
2. Cement program adjustment to the new bit/casing sizes. Cement recipe modifications detailed below.
3. The surface casing strings will be tested to 70% of their burst rating for 30 minutes.
4. BOP testing modification to test our BOP equipment using a test plug to 250/3000 psi for 10 minutes as a result of the reduced surface casing size.



Accepted for record

14. I hereby certify that the foregoing is true and correct.	
Electronic Submission #226521 verified by the BLM Well Information System For OXY USA WTP LP sent to the Carlsbad Committed to AFMSS for processing by JOHNNY DICKERSON on 11/13/2013 (14JLD1545SE)	
Name (Printed/Typed) JENNIFER A DUARTE	Title REGULATORY SPECIALIST
Signature (Electronic Submission)	Date 11/12/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>CHRISTOPHER WALLS</u>	Title <u>PETROLEUM ENGINEER</u>	Date <u>12/09/2013</u>
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 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.

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

OXY USA Inc
Osage 18 Federal #1H
APD SUNDRY DATA

OPERATOR NAME / NUMBER: OXY USA Inc

LEASE NAME / NUMBER: Osage 18 Federal #1H

STATE: NM **COUNTY:** Eddy

SURFACE LOCATION: 330' FSL & 660' FEL, Sec 18, T20S, R25E

BOTTOM HOLE LOCATION: 330' FNL & 400' FEL, Sec. 18, T20S, R25E

C-102 PLAT APPROX GR ELEV: 3562.5'

EST KB ELEV: 3578.7' (16.5' KB)

1. SUMMARY OF CHANGES:

Oxy USA respectfully requests approval for the following changes and additions to the drilling plan:

1. Casing design modification, to drill the well with smaller bit sizes: 11" surface hole with 8-5/8" surface casing and 7 7/8" production hole with 5-1/2" production casing. Details are below.
2. Cement program adjustment to the new bit/casing sizes. Cement recipe modifications detailed below.
3. The surface casing strings will be tested to 70% of their burst rating for 30 minutes.
4. BOP testing modification to test our BOP equipment using a test plug to 250/3000 psi for 10 minutes as a result of the reduced surface casing size.

2. CASING PROGRAM

Surface Casing: 8.625" casing set at 715'MD / 715'TVD in an 11" hole filled with 8.6 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0'- 715'	715'	32	J-55	LT&C	1370	2950	244	7.921	7.875	6.21	1.43	2.01

Production Casing: 5.5" casing set at ± 6868'MD / 2522' TVD in a 7.875" hole filled with 9.4 ppg mud

Interval	Length	Wt	Gr	Cplg	Coll Rating (psi)	Burst Rating (psi)	Jt Str (M-lbs)	ID (in)	Drift (in)	SF Coll	SF Burst	SF Ten
0' - 6868'	6868'	17	L-80	BT&C	6290	7740	397	4.892	4.767	5.06	1.26	2.59

Note: All Casing is in new condition

Casing Design Assumptions:

Burst Loads

CSG Test (Surface)

- Internal: Displacement fluid + 70% CSG Burst rating
- External: Pore Pressure from section TD to surface

CSG Test (Production)

- Internal: Displacement fluid + 80% CSG Burst rating
- External: Pore Pressure from the well TD the Intermediate CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

Gas Kick (Surface)

- Internal: Gas Kick based on Pore Pressure or Fracture Gradient @ CSG shoe with a gas 0.115psi/ft Gas gradient to surface while drilling the next hole section (e.g. Gas kick while drilling the production hole section is a burst load used to design the surface CSG)
- External: Pore Pressure from section TD to previous CSG shoe and MW of the drilling mud that was in the hole when the CSG was run to surface

Stimulation (Production)

- Internal: Displacement fluid + Max Frac treating pressure (not to exceed 80% CSG Burst rating)
- External: Pore Pressure from the well TD to the Intermediate CSG shoe and 8.5 ppg MWE to surface

Collapse Loads

Lost Circulation (Surface)

- Internal: Losses experienced while drilling the next hole section (e.g. losses while drilling the production hole section are used as a collapse load to design the surface CSG). After losses there will be a column of mud inside the CSG with an equivalent weight to the Pore Pressure of the lost circulation zone
- External: MW of the drilling mud that was in the hole when the CSG was run

Cementing (Surface /Production)

- Internal: Displacement Fluid
- External: Cement Slurries to TOC, MW to surface

Full Evacuation (Production)

- Internal: Atmospheric Pressure
- External: MW of the drilling mud that was in the hole when the CSG was run

Tension Loads

Running CSG (Surface/Production)

- Axial load of the buoyant weight of the string plus either 100 klb over-pull or string weight in air, whichever is less

Green Cement (Surface/Production)

- Axial load of the buoyant weight of the string plus the cement plug bump pressure (Final displacement + 500 psi)

Burst, Collapse and Tensile SF are calculated using Landmark's Stress Check (Casing Design) software.

3. CEMENT PROGRAM:

Surface Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Surface (TOC: 0' – 715')							
Tail: 0' - 715' (140 % Excess)	340	715'	Premium Plus cement with 94 lbm/sk Premium Plus Cement, 1% Calcium Chloride	6.36	14.80	1.34	1408 psi

Production Interval

Interval	Amount sx	Ft of Fill	Type	Gal/Sk	PPG	Ft ³ /sk	24 Hr Comp
Production (TOC: 0' - 6868') Single Stage							
Lead: 0' – 1883' (180% Excess)	290	1883'	Interfill C Cement: 0.5% LAP-1 (Low fluid loss control), 0.25% D-AIR 5000 (Defoamer), 2 lbm/sk Kol-Seal (Lost Circulation Additive), 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)	13.79	11.90	2.45	315 psi
Tail: 1883' – 6868' (30% Excess)	750	4985'	Premium Plus Cement: 94 lbm/sk Premium Plus Cement 0.5% Halad @-344, 0.2% WellLife 734, 5% Microbond, 0.3% Econolite, 0.3% CFR-3	7.70	14.2	1.54	1162 psi

Cement Additives: *Bentonite (light weight additive), Calcium Chloride (accelerator), Halad-344 (low fluid loss control), HR-601 (retarder), Kol-Seal (lost circulation additive), Salt (salt), Poly-E-Flake (lost circulation additive), Silicalite (Additive Material), CFR-3 (Dispersant), Schotchlite HGS 6000 (Light Weight Additive), WG-17 (Gelling Agent), Cal-Seal 60 (Accelerator), LAP-1 (Low fluid loss control), D-AIR 5000 (Defoamer),

4. PRESSURE CONTROL EQUIPMENT

Surface: 0 – 715' None.

Production: 0 - 6868' the minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required to drill below the surface casing shoe shall be 3000 (3M) psi. Operator will be using an 11" 3M two ram stack with 3M annular preventer, & 3M Choke Manifold.

- The 11" 3000 psi blowout prevention equipment will be installed and operational after setting the 8 5/8" surface casing and the 8 5/8" SOW x 11" 3K conventional wellhead; the rotating head body will be installed but the rubber will be installed when it becomes operationally necessary.
- The BOP and ancillary BOPE will be tested by a third party upon installation to the 8 5/8" surface casing. All equipment will be tested to 250/3000 psi for 10 minutes and charted, except the annular, which will be tested to 70% of working pressure. This is to be in compliance with the Onshore Order # 2 which states the BOPE shall be tested to 70 % of the yield of the casing when the BOP and casing are not isolated.
- The pipe rams will be functionally tested during each 24 hour period; the blind rams will be functionally tested on each trip out of the hole. These functional tests will be documented on the Daily Driller's Log. Other accessory equipment (BOPE) will include a safety valve and subs as needed to fit all drill strings, and a 2" kill line and 3" choke line having a 3000 psi WP rating. Oxy requests that the system be tested at 3,000 psi.
- Other accessory equipment (BOPE) will include a safety valve and subs as needed to fit all drill strings, and a 2" kill line and 3 " choke line having a 5000 psi WP rating, tested to 3,000 psi.

e. Oxy requests a variance to use a co-flex hose between the BOP and the choke manifold with pressure ratings and size equal to or higher rated than the following:

- Size: 3"
- Ends: flanges
- WP rating: 5000 psi
- Anchors required by manufacturer: No