	DE	UNITED STATES PARTMENT OF THE IN	OCD	Hobbs	FORM OMB N Expires:	APPROVED O. 1004-0135 July 31, 2010
	BUNDDY	UREAU OF LAND MANAG		OBBS OCD	5. Lease Serial No. NMNM55149	
۰ a	Do not use thi bandoned wel	is form for proposals to a I. Use form 3160-3 (APD)	drill or to re-enter an ) for such proposals.	-0 1 @ 201	6. If Indian, Allottee of	r Tribe Name
<u></u>	SUBMIT IN TRI	PLICATE - Other instruct	ions on reverse side.		7. If Unit or CA/Agre	ement, Name and/o
1. Type of Well				RECEIVED	8. Well Name and No. CORBIN SOUTH	FEDERAL 3
2. Name of Operator		Contact: J E-Mail: iessica, shal			9. API Well No. 30-025-41317	/
			3b. Phone No. (include area cod Ph. 713-840-3011	le)	10. Field and Pool, or	Exploratory
HOUSTON, T	X 77210					
4. Location of Well Sec 9 T18S R3	(Footage, Sec., T. 33E SESW 330	, R., M., or Survey Description) FSL 2000FWL			11. County or Parish, LEA COUNTY (	and State COUNTY, NM
12.	CHECK APPF	ROPRIATE BOX(ES) TO	INDICATE NATURE OF	NOTICE, RI	EPORT, OR OTHE	R DATA
TYPE OF SUB	BMISSION		TYPE	OF ACTION		• • • • • • • • • • • • •
Notice of Inte	ent	🗖 Acidize	🗖 Deepen	Product	ion (Start/Resume)	U Water Shut
C Subsequent R	anart	Alter Casing	Fracture Treat	🗖 Reclam	ation	□ Well Integr
	epon	Casing Repair	New Construction	🗖 Recomp	olete	Other
🗖 Final Abando	nment Notice	Change Plans	Plug and Abandon	Tempor	orarily Abandon PD	
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#### **OXY USA Inc Corbin South Federal #3 APD SUNDRY DATA**

#### **OPERATOR NAME / NUMBER: OXY USA Inc**

#### LEASE NAME / NUMBER: Corbin South Federal #3

COUNTY: Lea STATE: <u>NM</u>

SURFACE LOCATION: 330' FSL & 2000' FWL, Sec 9, T18S, R33E

#### C-102 PLAT APPROX GR ELEV: 3923.2' EST KB ELEV: 3947.2' (24'\_KB)

#### **SUMMARY OF CHANGES:** 1.

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: 14 <sup>3</sup>/<sub>4</sub>" surface hole, 10 5/8" intermediate hole and 7 7/8" production hole. Details are below.
- 2. Cement program adjustment to the new bit/casing sizes. Cement recipe modifications detailed below.
- 3. The Surface and Intermediate casings strings will be tested to 70% of their burst rating for 30 minutes. This will also test the seals of the lock down pins that hold the pack-off in place in the Multibowl wellhead system.

Surface	Casing: 11	.75" ca	sing set	$at \pm 1560$	<u>′ MD/15</u>	<u>50' TVD 1</u>	<u>n a 14.75"</u>	hole fille	ed with 8.	90 ppg r	nud	
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'-1560'	1560'	47	J-55	BT&C	1510	3070	737	11.000	10.844	2.77	1.42	4.52
Intermed	Intermediate Casing: 8.625" casing set at 2900'MD / 2900'TVD in a 10.625" hole filled with 10 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'- 2900'	2900'	32	J-55	LT&C	2530	3930	417	7.921	7.875	2.38	1.38	2.33
Producti	Production Casing: 5.5" casing set at ± 12000'MD / 12000' TVD in a 7.875" hole filled with 9.0 ppg mud											
Interval	Length	Wt	Gr	Cnlg	Coll Rating (psi)	Burst Rating	Jt Str (M-lbs)	ID (in)	Drift	SF	SF	SF Top
0' - 12000'	12000'	17	P-110	BT&C	7460	10640	546	4.892	4.767	1.41	1.23	1.98

#### CASING PROGRAM 2.

Note: All Casing is in new condition

#### 3. <u>CEMENT PROGRAM:</u>

- --

Surface Interv	val		. 3				
Interval	Amount sx	Ft of Fill	Туре	Gal/Sk	PPG	Ft <sup>3</sup> /sk	24 Hr Comp
Surface (TOC: 0	' – 1560')						
Lead: 0' – 1174' (165% Excess)	780	1174	Premium Plus cement with 1% Calcium Chloride, 4% Bentonite, 0.125 lbm/sl Poly-E- Flake	9.14	13.5	1.73	1006 psi
<b>Tail:</b> 1174' – 1560' (165 % Excess)	350	386	Premium Plus cement with 94 lbm/sk Premium Plus Cement, 2% Calcium Chloride	6.37	14.80	1.35	1326 psi

Intermediate Interval

Interval	Amount sx	Ft of Fill	Туре	Gal/Sk	PPG	Ft <sup>3</sup> /sk	24 Hr Comp
Intermediate (TC	C: 0' -2900	')					
Lead: 0' – 2220' (105% Excess)	390	2220'	Light Premium Plus Cement, with 5% Salt, 3lb-sk Kol Seal, 0.125 lb/sk Poly-E-Flake	9.68	12.9	1.87	500 psi
Tail: 2220' – 2900' (105 % Excess)	230	680'	Premium Plus cement with 1% Calcium Chloride	6.36	14.80	1.34	1650 psi

#### **Production Interval**

Interval	Amount sx	Ft of Fill	Туре	Gal/Sk	PPG	Ft <sup>3</sup> /sk	24 Hr Comp
Production_(TO	DC: 2600' -	12000')	Single Stage		•		•
Lead: 2400' – 6800' (100% Excess)	500	4400'	Tuned Light (TM) System Class H Cement, 3 lbm/sk Kol-Seal, 0.125 lbm/sk Poly-E-Flake, 0.2 lbm/sk HR-800	14.04	10.20	2.94	947 psi
<b>Tail:</b> 6800' – 12000' (40% Excess)	770	5200'	Super H Cement, 3 lbm/sk Kol-Seal, 3 lbm/sk Salt, 0.125 lbm/sk Poly-E-Flake, 0.2 % and HR-601, & 0.5% Halad-344, 0.4% CFR 3.	8.40	13.2	1.66	1673 psi

**Cement Additives:** Bentonite (light weight additive), Calcium Chloride (accelerator), Halad-344 (low fluid loss control),HR-800 (retarder), HR-601 (retarder), Kol-Seal (lost circulation additive), Salt (salt), Poly-E-Flake (lost circulation additive), CFR-3 (Dispersant)

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# PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME: OXV USA Inc	
OI ERAIOR DIVAME.   OAI ODA INC.	
LEASE NO.: NMNM-55149	
WELL NAME & NO.: Corbin South Federal 3	
SURFACE HOLE FOOTAGE: 0330' FSL & 2000' FWL	
LOCATION: Section 09, T. 18 S., R 33 E., NMPM	
COUNTY: Lea County, New Mexico	
API: 30-025-41317	

### I. DRILLING

## HOBBS OCD

DEC 1 9 2013

### A. DRILLING OPERATIONS REQUIREMENTS

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

RECEIVED

- 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 prior to drilling out the surface shoe. 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, provide measured values 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. 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.

Possibility of water and brine flows in the Artesia and Salado Groups. Higher than normal pressures may be encountered in the Wolfcamp formation.

Surface casing shall be kept fluid filled while running into hole to meet BLM minimum collapse requirements.

- 1. The **11-3/4** inch surface casing shall be set at approximately **1560** 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.

Formation below the 11-3/4" 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.

2. The minimum required fill of cement behind the **8-5/8** inch intermediate casing, which shall be set at approximately **2900** feet, is:

Cement to surface. If cement does not circulate see B.1.a, c-d above.

Formation below the 8-5/8" 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 (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

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

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.

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

### 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 5000 (5M) 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 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.

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 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.
  - 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. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

### E. DRILL STEM TEST

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

### F. 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.

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