Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
OCD Artesia

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

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 page 2

5. Lease Serial No.
NMNM96824

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
NMNM135945

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

8. Well Name and No.
CYPRESS 33 FEDERAL 2H

2. Name of Operator
OXY USA INCORPORATED
Contact: DAVID STEWART
E-Mail: david_stewart@oxy.com

9. API Well No.
30-015-37308-00-S1

3a. Address
5 GREENWAY PLAZA SUITE 110
HOUSTON, TX 77046-0521

3b. Phone No. (include area code)
Ph: 432.685.5717

10. Field and Pool or Exploratory Area
CEDAR CANYON
BSPG 11520

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 33 T23S R29E NENE 635FNL 765FEL

11. County or Parish, State
EDDY COUNTY, NM

12. CHECK THE 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	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☒ Recomplete	☐ Other
	☐ 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 must 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 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

Well Prep Procedure:
1. MIRU PU and rig equipment
2. Ensure well is dead
3. MU tubing equipment and POOH w/2-7/8" tubing and rod pump
4. RIH with cleanout BHA
5. RU power swivel if needed and cleanout to PBTD
6. POOH with cleanout BHA and work string
7. RIH with work string to top of KOP and set RBP. Test casing to 6200# or max treating pressure, whichever is lower.
8. Bleed off pressure & RBIH to latch on RBP, release RBP & POOH. LD w/ RBP
9. Perform drift run with Mohawk BHA
10. RIH w/ 4.25" 13.1# P110 R2M expandable liner & set @ approximately

GC 6-29-18
Accepted for record - NMOCD

NM OIL CONSERVATION
ARTESIA DISTRICT
JUN 29 2018

RECEIVED

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

Electronic Submission #424668 verified by the BLM Well Information System
For OXY USA INCORPORATED, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 06/25/2018 (18PP2039SE)

Name *(Printed/Typed)* DAVID STEWART — Title REGULATORY ADVISOR

Signature (Electronic Submission) — Date 06/19/2018

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By /s/ Jonathon Shepard — Title Petroleum Engineer — Date JUN 26 2018

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 Field 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.

(Instructions on page 2)

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

RWP 7-5-18

Additional data for EC transaction #424668 that would not fit on the form

32. Additional remarks, continued

8070-11200'
11. Expand the liner using Mohawk procedures

Plug & Perf stimulation operation:
1. Conduct pre-job safety meeting, discuss scope of work and hazard
2. Check WH pressure & bleed off pressure if any to grounded flowback tank
3. MIRU Cameron WH Company and equipment.
4. Install 10M frac stack on wellhead
5. MIRU frac and WL equipment
6. RIH with WL and plug and perf for stage 1 with 4 clusters (8084-11176') per attached perf design.
7. Spot 7.5% HCl acid and breakdown stage 1
8. Frac stage 1 per the pump schedule below
9. RIH with WL and plug & perf for stage 2 and frac afterwards
10. Repeat process for the remaining stages (estimated 16 total stages)
11. RDMO frac and WL company

Wellbore Clean out and Flowback Procedure:
1. Hold Pre-job safety meeting, discuss scope of work and hazards
2. Check WH pressure, bleed off pressure if any to grounded flowback tank
3. MIRU 2-3/8" CT unit, PU 4.13" JZ bit, (Mohawk liner is 4.158" ID drift) RIH and DO plugs and CO to PBTD
4. Circulate hole clean and pump gel sweeps
5. RDMO CT unit and turn the well over to production
6. Open to Flowback
7. An artificial lift procedure will be provided once flowback operations completed.

OXY USA Inc.- Cypress 33 Federal 2H – 30-015-37308 – Cedar Canyon Bone Spring

Well Prep Procedure:

1. MIRU PU and rig equipment
2. Ensure well is dead
3. MU tubing equipment and POOH w/2-7/8" tubing and rod pump with HEEL system. Send to the yard for inspection
4. RIH with cleanout BHA
5. RU power swivel if needed and cleanout to PBTD
6. POOH with cleanout BHA and work string
7. RIH with work string to top of KOP and set RBP. Test casing to 6200 psi or max treating pressure, whichever is lower.
8. Bleed off pressure and RBIH to latch on RBP, release RBP and begin POOH. LD w/ RBP
9. Perform drift run with Mohawk BHA
10. RIH w/ 4.25" 13.1# P110 R2M expandable liner set @ approximately from 8070–11200'.
11. Expand the liner using Mohawk procedures

Plug & Perf stimulation operation

1. Conduct pre-job safety meeting – discuss scope of work and hazard
2. Check wellhead pressure and bleed off pressure if any to grounded flowback tank
3. MIRU Cameron WH Company and equipment.
4. Install 10M frac stack on wellhead
5. MIRU frac and WL equipment
6. RIH with WL and plug and perf for stage 1 with 4 clusters (8084-11176'), per attached perf design.
7. Spot 7.5% HCl acid and breakdown stage 1
8. Frac stage 1 per the pump schedule below
9. RIH with WL and plug & perf for stage 2 and frac afterwards
10. Repeat process for the remaining stages (estimated 16 total stages)
11. RDMO frac and WL company

Wellbore Clean out and Flowback Procedure

1. Hold Pre-job safety meeting, discuss scope of work and hazards
2. Check well head pressure- bleed off pressure if any to grounded flowback tank
3. MIRU 2-3/8" CT unit, PU 4.13" JZ bit, (Mohawk liner is 4.158" ID drift) RIH and DO plugs and CO to PBTD
4. Circulate hole clean and pump gel sweeps
5. RDMO CT unit and turn the well over to production
6. Open to Flowback
7. An artificial lift procedure will be provided once flowback operations completed.

Proposed Perforation & Plug Depth

PLUGS AND PERFORATIONS INTERVALS						
		Cluster 1	Cluster 2	Cluster 3	Cluster 4	Plug
	Gun Length	2	2	2	2	
	Number of Shots	6	6	6	6	
Stage 1 Perfs: 6 shots loaded @ 60 degree phasing	Top	11028	11077	11125	11174	11200
	Bottom	11030	11079	11127	11176	
Stage 2 Perfs: 6 shots loaded @ 60 degree phasing	Top	10832	10880	10929	10978	11004
	Bottom	10834	10882	10931	10980	
Stage 3 Perfs: 6 shots loaded @ 60 degree phasing	Top	10635	10684	10733	10782	10808
	Bottom	10637	10686	10735	10784	
Stage 4 Perfs: 6 shots loaded @ 60 degree phasing	Top	10439	10488	10537	10585	10611
	Bottom	10441	10490	10539	10587	
Stage 5 Perfs: 6 shots loaded @ 60 degree phasing	Top	10243	10292	10340	10389	10415
	Bottom	10245	10294	10342	10391	
Stage 6 Perfs: 6 shots loaded @ 60 degree phasing	Top	10047	10095	10144	10193	10219
	Bottom	10049	10097	10146	10195	
Stage 7 Perfs: 6 shots loaded @ 60 degree phasing	Top	9850	9899	9948	9997	10023
	Bottom	9852	9901	9950	9999	
Stage 8 Perfs: 6 shots loaded @ 60 degree phasing	Top	9654	9703	9752	9800	9826
	Bottom	9656	9705	9754	9802	
Stage 9 Perfs: 6 shots loaded @ 60 degree phasing	Top	9458	9507	9555	9604	9630
	Bottom	9460	9509	9557	9606	
Stage 10 Perfs: 6 shots loaded @ 60 degree phasing	Top	9262	9310	9359	9408	9434
	Bottom	9264	9312	9361	9410	
Stage 11 Perfs: 6 shots loaded @ 60 degree phasing	Top	9065	9114	9163	9212	9238
	Bottom	9067	9116	9165	9214	
Stage 12 Perfs: 6 shots loaded @ 60 degree phasing	Top	8869	8918	8967	9015	9041
	Bottom	8871	8920	8969	9017	
Stage 13 Perfs: 6 shots loaded @ 60 degree phasing	Top	8673	8722	8770	8819	8845
	Bottom	8675	8724	8772	8821	
Stage 14 Perfs: 6 shots loaded @ 60 degree phasing	Top	8477	8525	8574	8623	8649
	Bottom	8479	8527	8576	8625	
Stage 15 Perfs: 6 shots loaded @ 60 degree phasing	Top	8280	8329	8378	8427	8453
	Bottom	8282	8331	8380	8429	
Stage 16 Perfs: 6 shots loaded @ 60 degree phasing	Top	8084	8133	8182	8230	8256
	Bottom	8086	8135	8184	8232	

Proposed Pump schedule

Slickwater 2 (5,000 ft)	1500 #/ft, 50 ft x 4 Clusters, Slickwater, Reduced Fluid									
			Fluid Information					Proppant Information			
#	Time [min]	Type	Rate [bpm]	Clean [gals]	Dirty [gals]	Cum. Dirty [gals]	Description	Prop. Conc. [PPA]	Description	Stage Sand [lbs]	Cum. Sand [lbs]
1	0.79	Acid	30	1000	1,000	1,000	7.5% HCl				
2	6.08	Pad	90	15000	20,000	21,000	Slick Water				
3	9.61	Sand Laden	90	10000	13,634	34,634	Slick Water	0.50	100 Mesh	5,000	5,000
4	13.84	Sand Laden	90	12000	16,543	51,177	Slick Water	0.75	100 Mesh	9,000	14,000
5	19.14	Sand Laden	90	15000	20,904	72,081	Slick Water	1.00	100 Mesh	15,000	29,000
6	26.19	Sand Laden	90	20000	28,174	100,255	Slick Water	1.25	100 Mesh	25,000	54,000
7	36.42	Sand Laden	90	29000	41,290	141,545	Slick Water	1.50	100 Mesh	43,500	97,500
8	47.00	Sand Laden	90	30000	43,166	184,711	Slick Water	1.75	100 Mesh	52,500	150,000
9	52.29	Sweep	90	15000	20,904	205,616	Slick Water	1.00	[redacted]	15,000	165,000
10	57.58	Sand Laden	90	15000	21,131	226,746	Slick Water	1.25	[redacted]	18,750	183,750
11	64.63	Sand Laden	90	20000	28,476	255,222	Slick Water	1.50	[redacted]	30,000	213,750
12	72.75	Sand Laden	90	23000	33,094	288,316	Slick Water	1.75	[redacted]	40,250	254,000
13	80.86	Sand Laden	90	23000	33,441	321,757	Slick Water	2.00	[redacted]	46,000	300,000
14	0.00	Flush	90				Slick Water		(Flush to Top Perf)		300,000

MOHAWK ENERGY EXPANDABLE LINER SPECIFICATIONS

4.25 inch, 0.31 wall x 5.5 inch, 17 lb/ft
FracPatch Specifications

Expandable Pipe Body					
Pre-Expansion			Post Expansion		
OD	4.250	*inches*	OD	4.805	*inches*
ID	3.630	*inches*	ID	4.218	*inches*
Wall Thickness	0.310	*inches*	Wall Thickness	0.293	*inches*
Weight	13.100	*lb/ft*	Drift	4.158	*inches*
Drift	3.505	*inches*	Internal Yield	9,895	*psi*
Seal Joint OD	4.490	*inches*	Collapse	5,600	*psi*
Seal Thickness	0.120	*inches*	Expansion Ratio	16.207	%

Expandable Connection					
Pre-Expansion			Post Expansion		
Connection OD	4.310	*inches*	Connection OD	4.865	*inches*
Connection ID	3.600	*inches*	Connection ID	4.218	*inches*
Drift	3.505	*inches*	Drift	4.158	*inches*
Tensile Rating	142,286	*lbs*	Internal Yield	9,895	*psi*
Compressive Rating	142,286	*lbs*	Collapse	5,600	*psi*
Max DLS	36.01	*°/100ft*	Tensile Rating	154,125	*lbs*
Optimum Torque	1,360	*ft-lbs*	Compressive Rating	138,713	*lbs*
Max Torque	1,496	*ft-lbs*	Yield Torque	1,700	*ft-lbs*

Mohawk Energy Setting Tool:

Appendix A1: Setting Tool

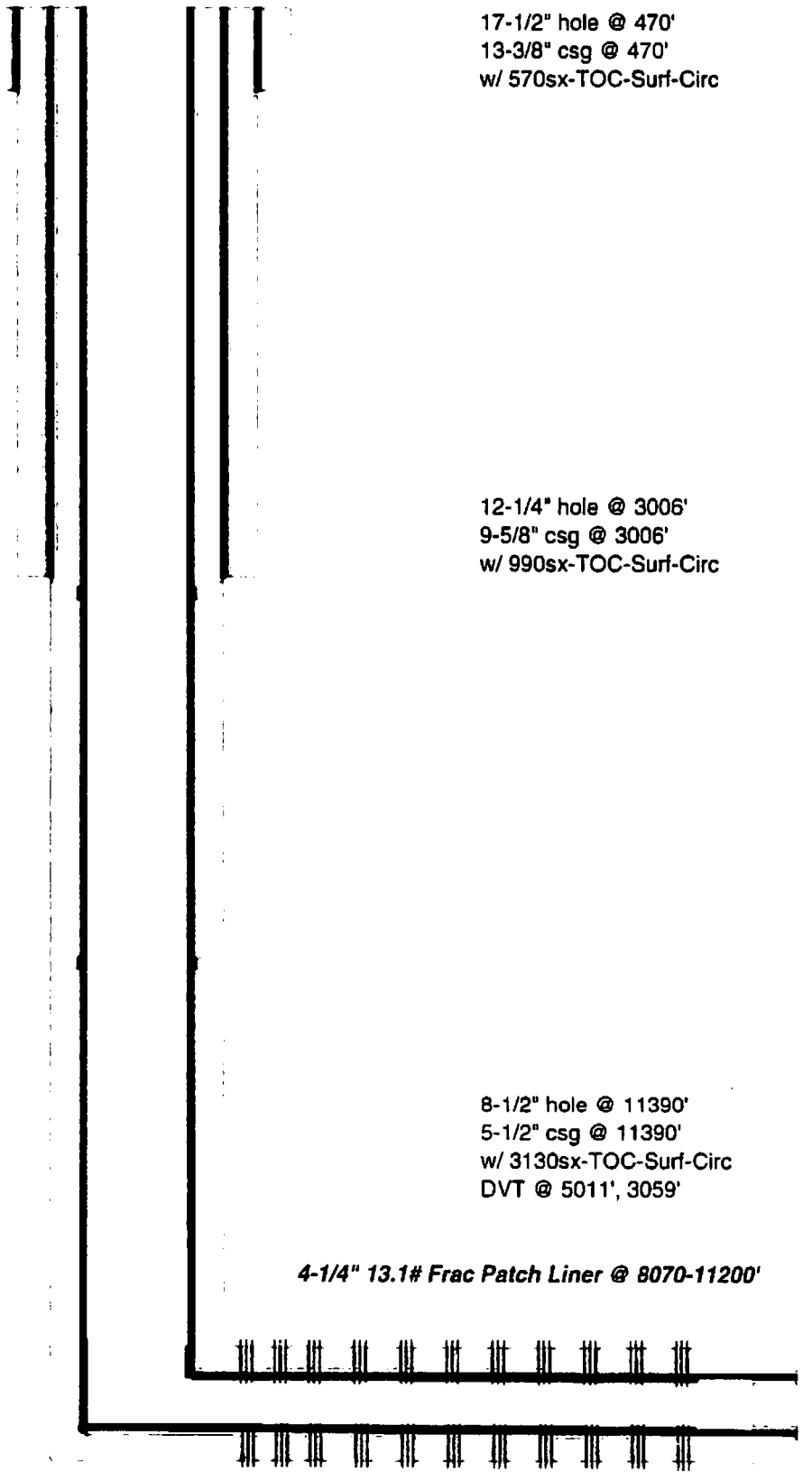
Table 4. 4.25 Setting Tool Specifications

Tool connection up	2-7/8", 7.9# PH-6 Box
Tool weight	900 lbs
Tool length	40.0 ft
Expansion stroke	2.80 ft
Max. dog-leg severity	25 °/100ft
Axial load rating	200,000 lbs
Max. pressure	4,500 psi
Max. temperature	400 °F
Circulation flow rate	30 gpm
Valve shut off flow rate	46 gpm
Pressure/force conversion	44 lbs/psi

Table 5. 3.50 Tool Running Parameters

Event	Pressure or Force
Stabbing sub latching load	500 lbs
Max. slack off during deployment	15,000 lbs
Max. overpull during deployment	25,000 lbs
Drive unit shear disk	1,750 psi
Tool reset	3,000-5,000 lbs
Safety burst disk relief	5,000 psi

OXY USA Inc - Proposed
Cypress 33 Federal #2H
API No. 30-015-37308



17-1/2" hole @ 470'
13-3/8" csg @ 470'
w/ 570sx-TOC-Surf-Circ

12-1/4" hole @ 3006'
9-5/8" csg @ 3006'
w/ 990sx-TOC-Surf-Circ

8-1/2" hole @ 11390'
5-1/2" csg @ 11390'
w/ 3130sx-TOC-Surf-Circ
DVT @ 5011', 3059'

4-1/4" 13.1# Frac Patch Liner @ 8070-11200'

Perfs @ 8084-11176'
Original Perfs @ 8500-11200'

TD - 11400'M 7649'V
PB - 11309'M 7649'V

OXY USA Inc - Current
Cypress 33 Federal #2H
API No. 30-015-37308