

Submit 1 Copy To Appropriate District Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S. First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Revised July 18, 2013

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-015-41291
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☐ FEE ☒
2. Name of Operator OXY USA Inc.		6. State Oil & Gas Lease No.
3. Address of Operator P.O. Box 50250 Midland, TX 79710		7. Lease Name or Unit Agreement Name Cedar Canyon 15
4. Well Location Unit Letter <u>E</u> : <u>2310</u> feet from the <u>North</u> line and <u>330</u> feet from the <u>West</u> line Section <u>15</u> Township <u>24S</u> Range <u>29E</u> NMPM County <u>Elly</u>		8. Well Number 4H
		9. OGRID Number 16696
		10. Pool name or Wildcat Pierce Crossing Base Springs, E.
		11. Elevation (Show whether DR, RKB, RT, GR, etc.) 2926'

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			
CLOSED-LOOP SYSTEM ☐			
OTHER: <u>Expandable Liner, Perfor, Frac</u> ☒		OTHER: ☐	

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

See Attached

RECEIVED

JUN 07 2018

DISTRICT II-ARTESIA O.C.D.

Spud Date:

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE David Stewart TITLE Sr. Regulatory Advisor DATE 6/4/18

Type or print name David Stewart E-mail address: david_stewart@oxy.com PHONE: 432-685-5717

For State Use Only

APPROVED BY: Staff TITLE Staff DATE 6-7-18
Conditions of Approval (if any):

Well Prep Procedure:

- MIRU PU and rig equipment
- Ensure well is dead
- MU tubing equipment and POOH w/ 2-7/8" tubing and rod pump with HEEL system. Send to the yard for inspection
- RIH with cleanout BHA
- RU power swivel if needed and cleanout to PBTB
- POOH with cleanout BHA and work string
- RIH with work string to top of KOP and set RBP. Test casing to 6200 psi or max treating pressure, whichever is lower.
- Bleed off pressure and RBP to latch on RBP, release RBP and begin POOH. LD w/ RBP
- Perform drift run with Mohawk BHA
- RIH w/ 4.25" 13.1# P110 R2M expandable liner set @ approximately from 8477–12900'
- Expand the liner using Mohawk procedures

Plug & Perf stimulation operation

- Conduct pre-job safety meeting – discuss scope of work and hazard
- Check wellhead pressure and bleed off pressure if any to grounded flowback tank
- MIRU Cameron WH Company and equipment.
- Install 10M frac stack on wellhead
- MIRU frac and WL equipment
- RIH with WL and plug and perf for stage 1 with 4 clusters (8508-12876'), per attached perf design
- Spot 7.5% HCl acid and breakdown stage 1
- Frac stage 1 per the pump schedule below
- RIH with WL and plug & perf for stage 2 and frac afterwards
- Repeat process for the remaining stages (estimated 22 total stages)
- RDMO frac and WL company

Wellbore Clean out and Flowback Procedure

- Hold Pre-job safety meeting, discuss scope of work and hazards
- Check well head pressure- bleed off pressure if any to grounded flowback tank
- 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 PBTB
- Circulate hole clean and pump gel sweeps
- RDMO CT unit and turn the well over to production
- Open to Flowback
- An artificial lift procedure will be provided once flowback operations completed.

OXY USA Inc. - Cedar Canyon 15 #4H – 30-015-41291 – Pierce Canyon Bone Spring, East

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	12723	12774	12824	12874	12900
	Bottom	12725	12776	12826	12876	
Stage 2 Perfs: 6 shots loaded @ 60 degree phasing	Top	12523	12573	12623	12673	12699
	Bottom	12525	12575	12625	12675	
Stage 3 Perfs: 6 shots loaded @ 60 degree phasing	Top	12322	12372	12422	12473	12499
	Bottom	12324	12374	12424	12475	
Stage 4 Perfs: 6 shots loaded @ 60 degree phasing	Top	12121	12171	12222	12272	12298
	Bottom	12123	12173	12224	12274	
Stage 5 Perfs: 6 shots loaded @ 60 degree phasing	Top	11920	11971	12021	12071	12097
	Bottom	11922	11973	12023	12073	
Stage 6 Perfs: 6 shots loaded @ 60 degree phasing	Top	11720	11770	11820	11870	11896
	Bottom	11722	11772	11822	11872	
Stage 7 Perfs: 6 shots loaded @ 60 degree phasing	Top	11519	11569	11619	11670	11696
	Bottom	11521	11571	11621	11672	
Stage 8 Perfs: 6 shots loaded @ 60 degree phasing	Top	11318	11368	11419	11469	11495
	Bottom	11320	11370	11421	11471	
Stage 9 Perfs: 6 shots loaded @ 60 degree phasing	Top	11117	11168	11218	11268	11294
	Bottom	11119	11170	11220	11270	
Stage 10 Perfs: 6 shots loaded @ 60 degree phasing	Top	10917	10967	11017	11067	11093
	Bottom	10919	10969	11019	11069	
Stage 11 Perfs: 6 shots loaded @ 60 degree phasing	Top	10716	10766	10816	10867	10893
	Bottom	10718	10768	10818	10869	
Stage 12 Perfs: 6 shots loaded @ 60 degree phasing	Top	10515	10565	10616	10666	10692
	Bottom	10517	10567	10618	10668	
Stage 13 Perfs: 6 shots loaded @ 60 degree phasing	Top	10314	10365	10415	10465	10491
	Bottom	10316	10367	10417	10467	
Stage 14 Perfs: 6 shots loaded @ 60 degree phasing	Top	10114	10164	10214	10264	10290
	Bottom	10116	10166	10216	10266	
Stage 15 Perfs: 6 shots loaded @ 60 degree phasing	Top	9913	9963	10013	10064	10090
	Bottom	9915	9965	10015	10066	
Stage 16 Perfs: 6 shots loaded @ 60 degree phasing	Top	9712	9762	9813	9863	9889
	Bottom	9714	9764	9815	9865	
Stage 17 Perfs: 6 shots loaded @ 60 degree phasing	Top	9511	9562	9612	9662	9688
	Bottom	9513	9564	9614	9664	
Stage 18 Perfs: 6 shots loaded @ 60 degree phasing	Top	9311	9361	9411	9461	9487
	Bottom	9313	9363	9413	9463	
Stage 19 Perfs: 6 shots loaded @ 60 degree phasing	Top	9110	9160	9210	9261	9287
	Bottom	9112	9162	9212	9263	
Stage 20 Perfs: 6 shots loaded @ 60 degree phasing	Top	8909	8959	9010	9060	9086
	Bottom	8911	8961	9012	9062	
Stage 21 Perfs: 6 shots loaded @ 60 degree phasing	Top	8708	8759	8809	8859	8885
	Bottom	8710	8761	8811	8861	
Stage 22 Perfs: 6 shots loaded @ 60 degree phasing	Top	8508	8558	8608	8658	8684
	Bottom	8510	8560	8610	8660	

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	13,635	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	40/70 White	15,000	165,000
10	57.58	Sand-Laden	90	15000	21,131	226,746	Slick Water	1.25	40/70 White	18,750	183,750
11	64.64	Sand-Laden	90	20000	28,476	255,222	Slick Water	1.50	40/70 White	30,000	213,750
12	72.75	Sand-Laden	90	23000	33,094	288,316	Slick Water	1.75	40/70 White	40,250	254,000
13	80.86	Sand-Laden	90	23000	33,441	321,757	Slick Water	2.00	40/70 White	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

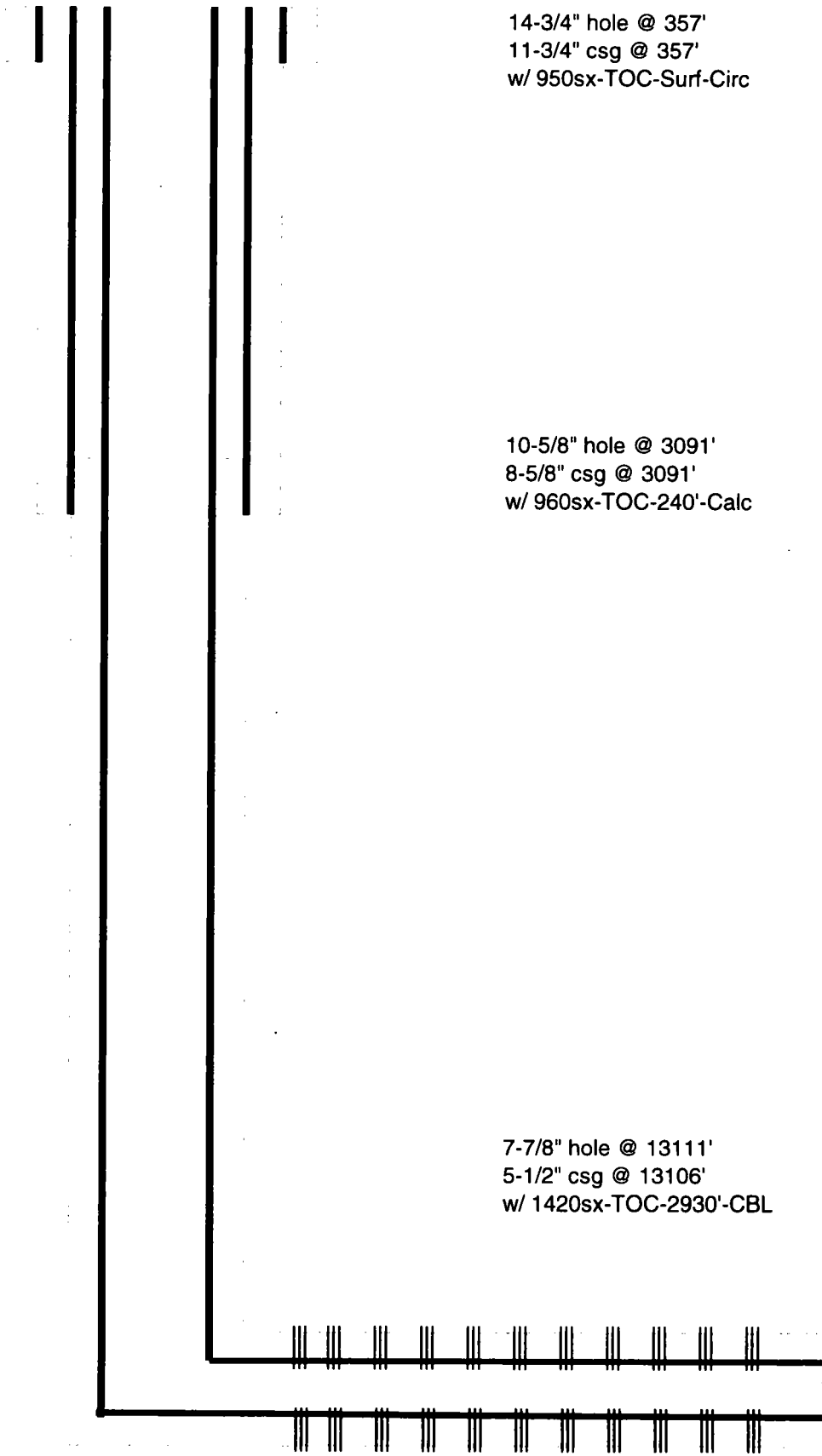
Tool connection up	2-7/8", 7.9# PH-6 Box
Tool weight	900 lbs
Tool length	40.0 ft
Expansion stroke	2.80 ft
Max. dog-leg severity	25 °/100ft
Axial load rating	200,000 lbs
Max. pressure	4,500 psi
Max. temperature	400 °F
Circulation flow rate	30 gpm
Valve shut off flow rate	46 gpm
Pressure/force conversion	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. - Current
Cedar Canyon 15 #4H
API No. 30-015-41291



14-3/4" hole @ 357'
11-3/4" csg @ 357'
w/ 950sx-TOC-Surf-Circ

10-5/8" hole @ 3091'
8-5/8" csg @ 3091'
w/ 960sx-TOC-240'-Calc

7-7/8" hole @ 13111'
5-1/2" csg @ 13106'
w/ 1420sx-TOC-2930'-CBL

Perfs @ 9000-12900'

TD - 13111'M 8783'V
PB - 12939'M 8788'V

OXY USA Inc. - Proposed
Cedar Canyon 15 #4H
API No. 30-015-41291

14-3/4" hole @ 357'
11-3/4" csg @ 357'
w/ 950sx-TOC-Surf-Circ

10-5/8" hole @ 3091'
8-5/8" csg @ 3091'
w/ 960sx-TOC-240'-Calc

7-7/8" hole @ 13111'
5-1/2" csg @ 13106'
w/ 1420sx-TOC-2930'-CBL

4-1/4" 13.1# Frac Patch Liner @ 8477-12900'

Perfs @ 8508-12876'
Original Perfs @ 9000-12900'

TD - 13111'M 8783'V
PB - 12939'M 8788'V