Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161 HOBBS OCD
1625 N. French Dr., Hobbs, NM 88240
District II – (575) 748-1283
811 S. First St., Artesia, NM 88210 APR 22 2014
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 RECEIVED

State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-103
Revised July 18, 2013

WELL API NO.	30-025-41361
5. Indicate Type of Lease	STATE ☒ FEE ☐
6. State Oil & Gas Lease No.	VB-2294

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.)

7. Lease Name or Unit Agreement Name	Gramma 27 State
1. Type of Well: Oil Well ☒ Gas Well ☐ Other	8. Well Number 1 H
2. Name of Operator Caza Operating, LLC	9. OGRID Number 249099
3. Address of Operator 200 North Loraine, Suite 1550, Midland, Texas 79701	10. Pool name or Wildcat Grama Ridge; Bone Spring NE 28435

4. Well Location
Unit Letter O : 330 feet from the South line and 1980 feet from the East line
Section 27 Township 21 S Range 34 E NMPM County

11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3682 ft GR

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: ☐		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.

Caza Operating has encountered lost returns while drilling the curve on the subject well. We will change the hole geometry to running 7" in the current 8-3/4" hole to the base of the curve @ ±11,600 md. The hole size changes, cement changes & casing design changes are attached. The lateral will now be a 6.125" hole with a production liner (4-1/2" 13.5 lb HCP)

Spud Date: 3/20/2014 Rig Release Date:

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

SIGNATURE Richard L Wright TITLE Operations Manager DATE 4-18-2014

Type or print name Richard L. Wright E-mail address: rwright@cazapetro.com PHONE: 432 682 7424

For State Use Only

APPROVED BY: TITLE Petroleum Engineer DATE APR 23 2014

Conditions of Approval (if any):

APR 23 2014

Well name: **Gramma 27 State # 1H**

Operator: **Caza Operating, LLC**

String type: **Production Frac: 7inch**

Location: New Mexico-Lea County_Gramma Ridge Area

Design parameters:			**Minimum design factors:**			**Environment:**			
Collapse				**Collapse:**		H2S considered?		No	
Mud weight:		10.00	ppg	DF	1.125	Surface temperature:		75.00	°F
Design is based on evacuated pipe.						Bottom hole temperature:		232	°F
						Temperature gradient:		1.40	°F/100ft
						Minimum section length:		1,500	ft
				Burst:		Minimum Drift:		6.125	in
				DF	1.10	Cement top:		4,149	ft
Burst									
Max anticipated surface pressure:		9,109.93	psi						
Internal gradient:		0.12	psi/ft	**Tension:**		Directional Info - Build & Hold			
Calculated BHP		10,453.92	psi	8 Rd STC:	1.80	(J)	Kick-off point	10650	ft
				8 Rd LTC:	1.80	(J)	Departure at shoe:	700	ft
Annular backup:		4.00	ppg	Buttress:	1.60	(J)	Maximum dogleg:	11	°/100ft
				Premium:	1.50	(J)	Inclination at shoe:	82.26	°
				Body yield:	1.50	(B)			
Annular surface pressure:	200	psi	Tension is based on buoyed weight.						
			Neutral pt:	9,504.77	ft				

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft^3)
1	11649	7	29.00	P-110	LT&C	11200	11649	6.059	2429.7

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	5818	8530	1.466	8912	11220	1.26	276	797	2.89 J

Prepared Richard Wright Phone: 432 682 7424 Date: April 18,2014

Midland, Texas

Remarks:

Collapse is based on a vertical depth of 11200 ft, a mud weight of 10 ppg The casing is considered to be evacuated for collapse purposes.

Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a tesile load which is added to the axial load.

Engineering responsibility for use of this design will be that of the purchaser.

Well name: **Gramma 27 State # 1H**

Operator: **Caza Operating, LLC**

String type: **Production Liner: Frac**

Location: New Mexico_Lea County_Gramma Ridge Area

Design parameters:			**Minimum design factors:**		**Environment:**			
Collapse			**Collapse:**		H2S considered?		No	
Mud weight:	10.00	ppg	DF	1.200	Surface temperature:		75.00	°F
Design is based on evacuated pipe.					Bottom hole temperature:		159	°F
					Temperature gradient:		0.75	°F/100ft
					Minimum section length:		1,500	ft
			Burst:		Minimum Drift:		3.750	in
			DF	1.15	Cement top:		10,568	ft
Burst								
Max anticipated surface pressure:	9,101.72	psi						
Internal gradient:	0.12	psi/ft	**Tension:**		Directional Info - Build & Hold			
Calculated BHP	10,445.71	psi	8 Rd STC:	1.80	(J)	Kick-off point	10650	ft
			8 Rd LTC:	1.80	(J)	Departure at shoe:	4621	ft
No backup mud specified.			Buttress:	1.60	(J)	Maximum dogleg:	11	°/100ft
			Premium:	1.50	(J)	Inclination at shoe:	89.59	°
			Body yield:	1.50	(B)			

Tension is based on buoyed weight.
Neutral pt: 11,231.00 ft

Run Seq	Segment Length (ft)	Size (in)	Nominal Weight (lbs/ft)	Grade	End Finish	True Vert Depth (ft)	Measured Depth (ft)	Drift Diameter (in)	Internal Capacity (ft³)
1	4968	4.5	13.50	HCP-110	Buttress	11200	15568	3.795	416.4

Run Seq	Collapse Load (psi)	Collapse Strength (psi)	Collapse Design Factor	Burst Load (psi)	Burst Strength (psi)	Burst Design Factor	Tension Load (Kips)	Tension Strength (Kips)	Tension Design Factor
1	5818	10680	1.932	10446	12410	2.25	7	422	60.58B

Prepared Richard Wright Phone: 432 682 7424 Date: April 18,2014

Midland Tx

Remarks:

Collapse is based on a vertical depth of 11200 ft, a mud weight of 10 ppg The casing is considered to be evacuated for collapse purposes.
Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.
Collapse strength is (biaxially) derated for doglegs in directional wells by multiplying the tensile stress by the cross section area to calculate a tensile load which is added to the axial load

Engineering responsibility for use of this design will be that of the purchaser.

Caza Petroleum

Gramma 27 State #1H "7 inch Cement Program" SW/SE_Section 27, T21S, R34E, Lea County, New Mexico.

1. **Production Hole depth= 11,600 ft.** "11,200" TVD. **TOC @ 4800 ft** w/ 50% W/O Production Hole = 8.75inch to 11600. Note:
   Curve = 10,600 - 11600' MD.

   Production Intermediate Casing = **7 inch 29# HCP-110 LTC**
   Hardware Needed = 24 spring Centralizers
   12 Rigid Centralizers for Curve. (1 every other Jt)
   Float Collar (1 jt up)
   Float Shoe
   TOC calculated to 4800 ft w/ 50% Washout open hole.

   Engineering Data "Production":
   500 ft 9-5/8" 40# X 7" Csg= 500' X .2091 cu ft / ft = **105 cu ft.**
   6300 ft 8.75 inch open hole x 7" 29 # casing = 6300' X .1503 x 1.5 excess = **1421 cu ft**
   80 ft 7" 29# casing volume= .2085 X 80 ft = **17 cu ft**
   Total Cement volume required = 1543 cu ft.
   Lead Slurry (9,000'-4800')= 940 cu ft 65/35 Poz/"H"mixed @12.6 ppg w/yield 1.93 cu ft/sk 1 lb/sk KOL seal = **(487 sks)**
   Tail Slurry (11600-9000)= 603 cu ft "H" 15.6 ppg w/ yield of 1.17 cu ft/sk w/ fluid loss control + Defoamer = **515 sks**

   Volumes to be adjusted after log review and mud logger lag review post drilling

Caza Petroleum

2. **Production liner depth= 15,625 ft.** "11,214" TVD. **TOC @ 5000 ft** w/ 50% W/O Production Hole = 8.75inch to 15,515. Note: Stage tool will be considered after reviewing drilling problems.
   Lateral = 10,600 - 15,625' MD.

Production Liner Casing = 4-1/2 inch 13.5# HCP-110 BTC
Hardware Needed = 45 Rigid Centralizers for Lateral. (1 every other Jt)
Float Collar (1 jt up)
Float Shoe
TOC calculated to 10600 ft w/ 50% Washout open hole.

Engineering Data "Production":
1000 ft 7" 29# X 4-1/2" Csg= 1000' X .0981 cu ft / ft = **98 cu ft.**
4025 ft 6.125 inch open hole x 4-1/2"13.5 # Liner = 4025' X .0942 x 1.5 excess = **569 cu ft**
44 ft 4.5" 13.5# casing volume= .0838 X 44 ft = **4 cu ft**
Total Cement volume required = 671 cu ft.
Slurry (15,625-10,600')= 671 cu ft "H" SoluCem mixed 15.0 ppg w/ yield of 2.61 cu ft/sk w/ fluid loss control + Defoamer "Acid soluble" = **257 sks**

Volumes to be adjusted after log review and mud logger lag review post drilling