

Submit 1 Copy To Appropriate District Office
District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
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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. 30-025-40604
1. Type of Well: Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/>		5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/>
2. Name of Operator Caza Operating, LLC		6. State Oil & Gas Lease No. VB-1758
3. Address of Operator 200 N. Loraine, Suite 1550, Midland, Texas 79701		7. Lease Name or Unit Agreement Name Igloo 19 State
4. Well Location Unit Letter A : 200 feet from the North line and 660 feet from the East line Section 19 Township 20 S Range 35 E NMPM County Lea		8. Well Number 2H
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3677 GR		9. OGRID Number 249099
		10. Pool name or Wildcat Lea; Bone Sprgs, South 37580

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

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input checked="" type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>			
OTHER: <input type="checkbox"/>		OTHER: <input type="checkbox"/>	

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, LLC respectfully request permission to change the surface Casing depth on the approved APD from 450 ft to 1800 ft. This should land the casing in the top of the Rustler formation. Attached is the casing design & cement adjustment for the changes.

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

TITLE **Operations Manager**

DATE **10-6-2014**

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 **10/08/14**

Conditions of Approval (if any):

OCT 08 2014

Well name:

Igloo 19 State # 2H

Operator: **Caza Operating, LLC**

String type: **Surface Casing**

Location: New Mexico, Lea County. API # 30-025-40604

Design parameters:

Collapse

Mud weight: 9.50

Design is based on evacuated pipe.

Minimum design factors:

Collapse:

DF 1.125

Burst:

DF 1.10

Environment:

H2S considered?

No

Surface temperature:

75.00 °F

Bottom hole temperature:

87 °F

Temperature gradient:

0.65 °F/100ft

Minimum section length:

1,500 ft

Minimum Drift:

12.250 in

Cement top:

Surface

Burst

Max anticipated surface pressure:

906.08 psi

Internal gradient:

0.12 psi/ft

Calculated BHP

1,122.08

Annular backup:

8.00

Tension:

8 Round ST: 1.80

8 Round LTC: 1.80

Buttress: 1.60

Premium: 1.50

Body yield: 1.50

Non-directional string.

(J)

(J)

(J)

(J)

(B)

Re subsequent strings:

Next setting depth:

5,650 ft

Next mud weight:

10.000 ppg

Next setting BHP:

2,935 psi

Fracture mud wt:

12.000 ppg

Fracture depth:

1,800 ft

Injection pressure

1,122 psi

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	1800	13.375	54.50	J-55	ST&C	1800	1800	12.49	1562.3

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	888	1130	1.272	906	2730	3.01	84	514	6.10 J

Prepared Richard Wright

Phone: (432) 682 7424

FAX: (432) 682 7425

Date:

October 3, 2014

Midland, Texas

Remarks:

Collapse is based on a vertical depth of 1800 ft, a mud weight of 9.5 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.

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

Primary Cementing Proposal

Caza Petroleum

Igloo BRR State #2H

13 3/8 IN SURFACE CASING

Well Location

County: *Lea*
State: *NM*

Well Information

Casing Size: 13 3/8 [in]
Casing Depth: 1700 [ft]
TVD: 1700 [ft]
O.H. Size: 17 1/2 [in]
O.H. Depth: 1700 [ft]

Water Estimates

Spacer: 10.0 [bbls]
Total Mix Water: 295.3 [bbls]
Displacement: 256.2 [bbls]
Wash up: 30.0 [bbls]

BHST: 93.6 [°F]
BHCT: 83.0 [°F]

Total Water Estimate: 591.5 [bbls]



Prepared For: *Richard Wright*

Date Prepared: 9/23/14

Prepared By: *Zach Glisson*

Phone: 432.683.5000

Fax: 432.683.3697

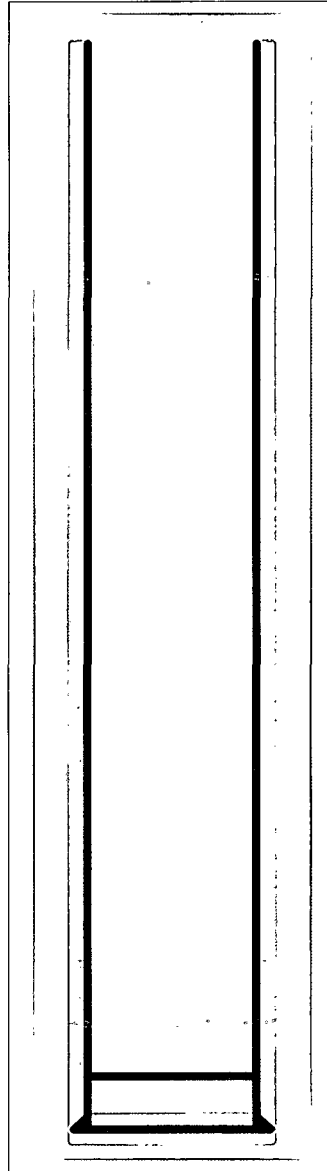
Email: zach.glisson@nabors.com

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Caza Petroleum
Igloo BRR State #2H
13 3/8 IN SURFACE CASING

Well Bore Information

Drilling Fluid 8.4 ppg Water Based Drilling Fluid
Spacers



Differential Pressure
460 [psi]
[assumes vertical hole]

Total Annular Excess
100 %

Casing in OH1 Factor:
0.6946 [cuft/ft]
(Without Excess)

Casing Capacity Factor:
0.8676 [cuft/ft]

Lead Cement

Top: Cement to Surface
Fill: 1438 [ft]
Excess: 100 %
Vol: 2000 [cuft]

Tail Cement

Top: 1438 [ft]
Fill: 262 [ft]
Excess: 100 %
Vol: 403 [cuft]

Shoe Track Length
42 [ft]

Measured Depth
1,700 [ft]

Note: Drawing may not be 100%
Accurate with different situations.

Displacement Volume: 256 [bbls]

Caza Petroleum

Igloo BRR State #2H

13 3/8 IN SURFACE CASING

Mud / Cement Spacer System:

20 bbls of Fresh Water Spacer

Lead System

1150 sks

High Early Compressive + 4% Bentonite + 2% Calcium Chloride

Mix Weight:	13.50 [lb/gal]
Yield:	1.74 [cuft/sk]
Mix Water:	9.13 [gal/sk]

Tail System

300 sks

High Early Compressive + 2% Calcium Chloride

Mix Weight:	14.80 [lb/gal]
Yield:	1.34 [cuft/sk]
Mix Water:	6.33 [gal/sk]

256 bbls of Water

Always refigure on location!!!!