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

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

Form C-103
Revised July 18, 2013

WELL API NO. 30-025-40604
5. Indicate Type of Lease STATE [X] FEE [ ]
6. State Oil & Gas Lease No. VB-1758

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.)

HOBBS OCD
OCT 06 2014
RECEIVED

7. Lease Name or Unit Agreement Name: Igloo 19 State
1. Type of Well: Oil Well [X] Gas Well [ ] Other
8. Well Number 2H
2. Name of Operator: Caza Operating, LLC
9. OGRID Number 249099
3. Address of Operator: 200 N. Loraine, Suite 1550, Midland, Texas 79701
10. Pool name or Wildcat: Lea; Bone Sprgs, South 37580
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
11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* 3677 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	[X]	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 respectfully request permission to change the production casing design on the approved APD from 17 lb to 20 lb. 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 Richard L. Wright 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: **Intermediate Casing**

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

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.					BHT	112	°F
					Temperature gradient:	0.65	°F/100ft
					Minimum sec length:	1,500	ft
			Burst:		Minimum Drift:	8.750	in
			DF	1.13	Cement top:	Surface	
Burst							
Max anticipated surface pressure:	2,844.08	psi					
Internal gradient:	0.12	psi/ft	**Tension:**		Non-directional string.		
Calculated BHP	3,522.08	psi	8rd STC	1.80	(J)		
			8rd LTC	1.80	(J)		
Annular backup:	8.00	ppg	Buttress:	1.60	(J)		
			Premium:	1.50	(J)		
			Body yield:	1.50	(B) **Re subsequent strings:**		
					Next setting depth:	11,322	ft
			Tension is based on buoyed weight.		Next mud weight:	9.200	ppg
			Neutral pt: 4,809.56 ft		Next setting BHP:	5,411	psi
					Fracture mud wt:	12.000	ppg
					Fracture depth:	5,650	ft
					Injection pressure	3,522	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 (ft^3)
2	3900	9.625	40.00	J-55	LT&C	3900	3900	8.75	1660.4
1	1750	9.625	40.00	HCK-55	ST&C	5650	5650	8.75	745

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
2	2026	2528	1.248	2844	3950	1.39	192	520	2.70 J
1	2935	4230	1.441	1691	3950	2.34	36	604	16.60 J

Prepared by: 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 5650 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.

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

NABORS COMPLETION & PRODUCTION SERVICES CO.
8001 West Industrial Avenue
Midland, TX 79706

Office: 432.561.5822
Fax: 432.561.5823
www.nabors.com

Primary Cementing Proposal

Caza Petroleum

Igloo BRR State #2H

9 5/8 IN 2 STAGE INTERMEDIATE CASING

Well Location

County: *Lea*
State: *NM*

Well Information

Casing Size:	*9 5/8 [in]*
Casing Depth:	*5700 [ft]*
TVD:	*5700 [ft]*
O.H. Size:	*12 1/4 [in]*
O.H. Depth:	*5700 [ft]*

Water Estimates

Spacer:	*10.0 [bbls]*
Total Mix Water:	*434.3 [bbls]*
Displacement:	*725.0 [bbls]*
Wash up:	*30.0 [bbls]*
Total Water Estimate:	*1199.3 [bbls]*

Pvs.Casing Size:	*13 3/8 [in]*
Pvs. Casing Depth	*1700 [ft]*
BHST:	*125.6 [°F]*
BHCT:	*108.0 [°F]*
D.V. Tool Depth:	3900 *[ft]*
BHST:	111.2 *[°F]*
BHCT:	96 *[°F]*

NABORS COMPLETION & PRODUCTION SERVICES CO.

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

NABORS COMPLETION & PRODUCTION SERVICES CO.
8001 West Industrial Avenue
Midland, TX 79706

Office: 432.561.5822
Fax: 432.561.5823
www.nabors.com

Caza Petroleum

Igloo BRR State #2H

9 5/8 IN 2 STAGE INTERMEDIATE CASING

Well Bore Information

Drilling Fluid *8.4 ppg Water Based Drilling Fluid*

Previous Casing Depth:
1700 [ft]

Casing in Casing Factor:
0.3623 [cuft/ft]

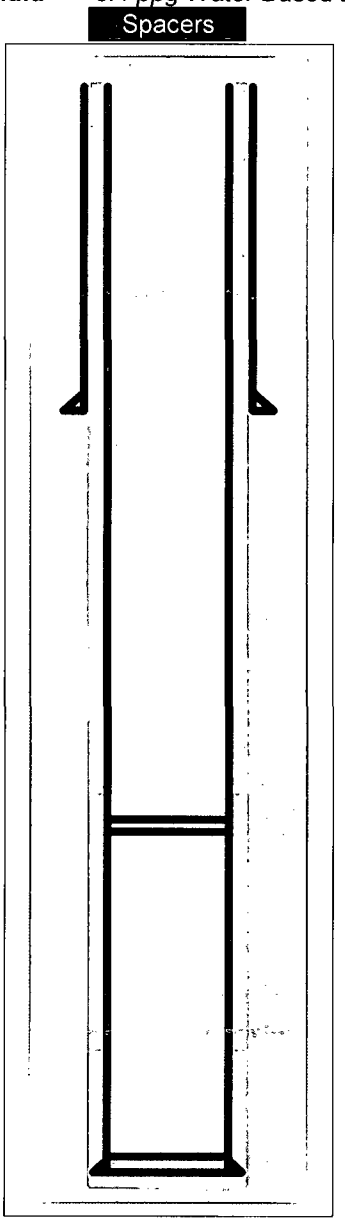
D.V. Tool Depth:
3900 [ft]

Differential Pressure
418 [psi]
[assumes vertical hole]
Differential Pressure Stg 2
1589 [psi]

Total Annular Excess
100 %

Casing in OH1 Factor:
0.3132 [cuft/ft]
(Without Excess)

Casing Capacity Factor:
0.4259 [cuft/ft]



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

Stage 2 Lead Cement
Top: *0 [ft]*
Fill: *3718 [ft]*
Excess: 100 %
Vol: *1880 [cuft]*

Stage 2 Tail Cement
Top: *3718 [ft]*
Fill: *182 [ft]*
Excess:
Vol:

Lead Cement
Top: *3900 [ft]*
Fill: *1168 [ft]*
Excess: 100 %
Vol: *760 [cuft]*

Tail Cement
Top: *5068 [ft]*
Fill: *632 [ft]*
Excess: 100 %
Vol: *398 [cuft]*

Shoe Track Length
42 [ft]
Measured Depth
5,700 [ft]

Displacement Volume: 429 [bbls]

NABORS COMPLETION & PRODUCTION SERVICES CO.
8001 West Industrial Avenue
Midland, TX 79706

Office: 432.561.5822
Fax: 432.561.5823
www.nabors.com

Caza Petroleum

Igloo BRR State #2H

9 5/8 IN 2 STAGE INTERMEDIATE CASING

Stage 1 System Information
Mud / Cement Spacer System:

20 bbls of Fresh Water Spacer

Lead System
360 sks

35:65 POZ:High Early Compressive + 5% Salt (NaCl) (BWOW) + 6% Bentonite + 0.3% Super CR-1

Mix Weight:	12.40 [lb/gal]
Yield:	2.11 [cuft/sk]
Mix Water:	11.81 [gal/sk]

Tail System
300 sks

High Early Compressive + 0.2% Super CR-1

Mix Weight:	14.80 [lb/gal]
Yield:	1.33 [cuft/sk]
Mix Water:	6.31 [gal/sk]

429 bbls of Water

Always refigure on location!!!!

NABORS COMPLETION & PRODUCTION SERVICES CO.
8001 West Industrial Avenue
Midland, TX 79706

Office: 432.561.5822
Fax: 432.561.5823
www.nabors.com

Caza Petroleum

Igloo BRR State #2H

9 5/8 IN 2 STAGE INTERMEDIATE CAS

Stage 2 System Information

Mud / Cement Spacer System:

0 bbls @ 8.34 [lb/gal]

Lead System

1000 sks

35:65 POZ:High Early Compressive + 5% Salt (NaCl) (BWOW) + 6% Bentonite + 0.1% Super CR-1

Mix Weight:	12.40 [lb/gal]
Yield:	2.07 [cuft/sk]
Mix Water:	11.46 [gal/sk]

Tail System

100 sks

High Early Compressive + 0.1% Super CR-1

Mix Weight:	14.80 [lb/gal]
Yield:	1.32 [cuft/sk]
Mix Water:	6.31 [gal/sk]

Displacement Fluid

296 bbls of Water

Always refigure on location!!!!

Well name: **Igloo 19 State # 2H**

Operator: **Caza Operating, LLC**

String type: **Production Casing: Frac**

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

Design parameters:			**Minimum design factors:**		**Environment:**		
Collapse			**Collapse:**		H2S considered?	No	
Mud weight:	9.50	ppg	DF	1.125	Surface temperature:	75.00	°F
Design is based on evacuated pipe.					BHT	154	°F
					Temperature gradient:	0.70	°F/100ft
					Minimum sec length:	1,500	ft
			Burst:		Minimum Drift:	4.650	in
			DF	1.10	Cement top:	4,827	ft
Burst							
Max anticipated surface pressure:	9,843.80	psi					
Internal gradient:	0.12	psi/ft	**Tension:**		Directional Info - Build & Hold		
Calculated BHP	11,202.44	psi	8 Rd STC:	1.80	(J) Kick-off point	10750	ft
			8 Rd LTC:	1.80	(J) Departure at shoe:	4750	ft
Annular backup:	8.00	ppg	Buttress:	1.60	(J) Maximum dogleg:	10	°/100ft
			Premium:	1.50	(J) Inclination at shoe:	90.01	°
			Body yield:	1.50	(B)		

Tension is based on buoyed weight.
Neutral pt: 9,693.73 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	15827	5.5	20.00	HCP-110	CDC-HTQ	11322	15827	4.653	1970.7

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	5587	12200	2.183	9855	12640	1.28	194	641	3.31 B

Prepared by: 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 11322 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.
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.

NABORS COMPLETION & PRODUCTION SERVICES CO.
8001 West Industrial Avenue
Midland, TX 79706

Office: 432-561-5822
Fax: 432-561-5823
www.nabors.com

Primary Cementing Proposal

Caza Petroleum

Igloo BRR State #2H

5 1/2 IN PRODUCTION CASING

Well Location

County: *Lea*
State: *Nm*

Well Information

Casing Size:	*5 1/2 [in]*
Casing Depth:	*15830 [ft]*
TVD:	11322 *[ft]*
O.H. Size:	*8 3/4 [in]*
O.H. Depth:	15830 *[ft]*

Water Estimates

Spacer:	*20.0 [bbls]*
Total Mix Water:	*472.4 [bbls]*
Displacement:	*352.3 [bbls]*
Wash up:	*30.0 [bbls]*
Total Water Estimate:	*874.7 [bbls]*

Pvs.Casing Size:	*9 5/8 [in]*
Pvs. Casing Depth	*5700 [ft]*
BHST:	*172.0 [°F]*
BHCT:	*172.0 [°F]*

NABORS COMPLETION & PRODUCTION SERVICES CO.

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

NABORS COMPLETION & PRODUCTION SERVICES CO.
8001 West Industrial Avenue
Midland, TX 79706

Office: 432-561-5822
Fax: 432-561-5823
www.nabors.com

Caza Petroleum

Igloo BRR State #2H

5 1/2 IN PRODUCTION CASING

Well Bore Information

Drilling Fluid *9.0 ppg Water Based Drilling Fluid*

Previous Casing Depth:
5700 [ft]

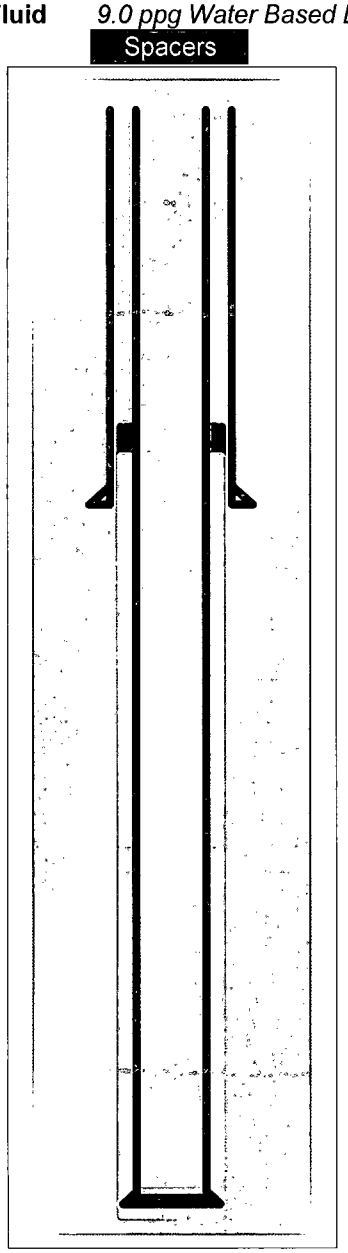
Casing in Casing Factor:
0.2609 [cuft/ft]

Differential Pressure
2995 [psi]
[assumes vertical hole]

Total Annular Excess
50 %

Casing in OH1 Factor:
0.2526 [cuft/ft]
(Without Excess)

Casing Capacity Factor:
0.1253 [cuft/ft]



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

Lead Cement
Top: *5000 [ft]*
Fill: *5700 [ft]*
Excess: 50 %
Vol: *2506 [cuft]*

Tail Cement
Top: *10700 [ft]*
Fill: *5130 [ft]*
Excess: 50 %
Vol: *1986 [cuft]*

Shoe Track Length
42 [ft]

Measured Depth
15,830 [ft]

Displacement Volume: 352 [bbls]

NABORS COMPLETION & PRODUCTION SERVICES CO.
8001 West Industrial Avenue
Midland, TX 79706

Office: 432-561-5822
Fax: 432-561-5823
www.nabors.com

Caza Petroleum

Igloo BRR State #2H

5 1/2 IN PRODUCTION CASING

Mud / Cement Spacer System:

20 bbls Water

Lead System

1100 sks

35/65 Poz/Class "H" + 6% Bentonite + 1 lb/sk Kolseal + 0.3% CR-1

Mix Weight:	12.60 [lb/gal]
Yield:	1.93 [cuft/sk]
Mix Water:	10.15 [gal/sk

Tail System

755 sks

Class "H" + 100% Super Acid Soluable + 0.8% GasX 400C + 0.2% C-51 + 10 lb/sk SFA + 0.4% CR-1 + 0.3% AG-350

Mix Weight:	15.00 [lb/gal]
Yield:	2.63 [cuft/sk]
Mix Water:	11.49 [gal/sk]

Displacement Fluid

352 bbls of Water

Always refigure on location!!!!