

State of New Mexico
Energy, Minerals and Natural Resources Department

Susana Martinez
Governor

David Martin
Cabinet Secretary

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Deputy Cabinet Secretary

Jami Bailey, Division Director
Oil Conservation Division



New Mexico Oil Conservation Division approval and conditions listed below are made in accordance with OCD Rule 19.15.7.11 and are in addition to the actions approved by BLM on the following 3160-4 or 3160-5 form.

Operator Signature Date: July 8th, 2014

Well information:

API WELL #	Well Name	Well #	Operator Name	Type	Stat	County	Surf. Owner	UL	Sec	Twp	N/S	Rng	W/E
30-039-26098-00-00	JICARILLA 28 02 05	001	BLACK HILLS GAS RESOURCES, INC.	G	A	Rio Arriba	J	J	5	28	N	2	W

Application Type:

- P&A
 Drilling/Casing Change
 Recomplete/DHC
 Location Change
 Other:

Conditions of Approval:

Notify NMOCD 24hrs prior to beginning operations

Please extend Nacimiento plug to 2193 feet

NMOCD Approved by Signature

7-17-14
Date

PLUG AND ABANDONMENT PROCEDURE

June 5, 2014

Jicarilla 28-02-05 #1

East Blanco PC / Burro Canyon, Tertiary
1760' FSL, 1760' FEL, Section 5, T28N, R2W, Rio Arriba County, NM
API 30-039-26098 / Long: _____ / Lat: _____

Note: All cement volumes use 100% excess outside pipe and 50' excess inside. The stabilizing wellbore fluid will be 8.3 ppg, sufficient to balance all exposed formation pressures. All cement will be Class B, mixed at 15.6 ppg with a 1.18 cf/sx yield.

1. This project will use an A-Plus steel tank to handle waste fluids circulated from the well and cement wash up.
2. Install and test location rig anchors. Comply with all NMOCD, BLM, and Operator safety regulations. MOL and RU daylight pulling unit. Conduct safety meeting for all personnel on location. Record casing, tubing and bradenhead pressures. NU relief line and blow down well. Kill well with water as necessary and at least pump tubing capacity of water down the tubing. ND wellhead and NU BOP. Function test BOP.
3. Rods: Yes _____, No X, Unknown _____.
Tubing: Yes X; No _____, Unknown _____, Size 2-3/8", Length 3644'.
Packer: Yes X, _____, Unknown _____, Type A-1X packer at 3454'.
If this well has rods or a packer, then modify the work sequence in step #2 as appropriate.
TOH with tubing and LD packer.
4. **Plug #1 (Pictured Cliffs interval, Fruitland, Kirtland and Ojo Alamo tops, 3548' – 2953')**:
Round trip 5.5" csg scraper or gauge ring to 3548'. RIH and set 5.5" CR or CIBP at 3548'.
Pressure test tubing to 1000#. Circulate well clean. Spot 73 sxs Class B cement above the CR or CIBP to isolate the PC interval and cover through the Ojo Alamo top. PUH and WOC. TIH and tag cement. Plug should be at least 50' above the top of the Ojo Alamo. PUH.
Note: if Plug #1 is set at the end of the day then don't set CR. TIH with open ended tubing and spot 104 sxs Class B cement (30% excess over perforations) and WOC overnight. TIH and tag plug the next morning at 50' above OA top. If necessary top off plug. PUH.
See COA
5. **Plug #2 (Nacimiento top, 2133' - 2033')**: Mix 17 sxs Class B cement and spot a balanced plug inside the casing to isolate the Nacimiento top. TOH.
6. **Plug #3 (San Jose perforations, 1509' – 1409')**: TIH and set 5.5" CR or CIBP at 1509'.
Pressure test tubing to 1000#. Attempt to pressure test casing to 800#. If casing does not test then spot or tag subsequent plugs as appropriate. Mix 17 sxs Class B cement and spot a balanced plug inside casing above CR or CIBP to isolate San Jose perforations top. PUH.
7. **Plug #4 (8-5/8" Surface casing shoe, 303' - Surface)**: Attempt to pressure test the bradenhead annulus to 300 PSI; note the volume to load. If the BH annulus holds pressure, then establish circulation out casing valve with water. Mix approximately 44 sxs cement and spot a balanced plug from 303' to surface, circulate good cement out casing valve. TOH and LD tubing. Shut well in and WOC. If the BH annulus does not test, then perforate at the appropriate depth and attempt to circulate cement to surface filling the casing from 303' and the annulus from the squeeze holes to surface. Shut in well and WOC.
8. ND BOP and cut off wellhead below surface casing flange. Install P&A marker with cement to comply with regulations. Record GPS coordinate for P&A marker on tower report. Photograph P&A marker in place. Cut off anchors and clean up location. Restore location per BLM stipulations.

Jicarilla 28-02-05 #1

Current

East Blanco Pictured Cliffs / Burro Canyon, Tertiary

1760' FSL & 1760' FEL, Section 5, T-28-N, R-2-W, Rio Arriba County, NM

Long: _____ / Lat: _____ / API 30-039-26098

Today's Date: 6/5/14
Spud: 9/29/00
PC Comp: 6/26/03
Ojo Alamo Comp: 7/23/03
Elevation: 7228' GI
7240' KB

12-1/4" Hole

TOC circulated to surface
per completion report

8-5/8" 24#, Casing set @ 253'
Cement with 110 sxs, circulated to surface

San Jose Perforations:
1559' - 1620'

Nacimiento @ 2083'

2-3/8" tubing at 3644'
(115 jts, SN and mule shoe coupling, A-1X pkr)

Ojo Alamo @ 3003'

Kirtland @ 3395'

A-1X packer 6K at 3454'

Fruitland @ 3533'

Pictured Cliffs @ 3572'

Pictured Cliffs Perforations:
3598' - 3684'

7-7/8" Hole

5.5" 17#, K-55 Casing @ 3851'
Cement with 975 sxs, circulate 20 sxs to surface

3850' TD
3817' PBSD

Jicarilla 28-02-05 #1

Proposed P&A

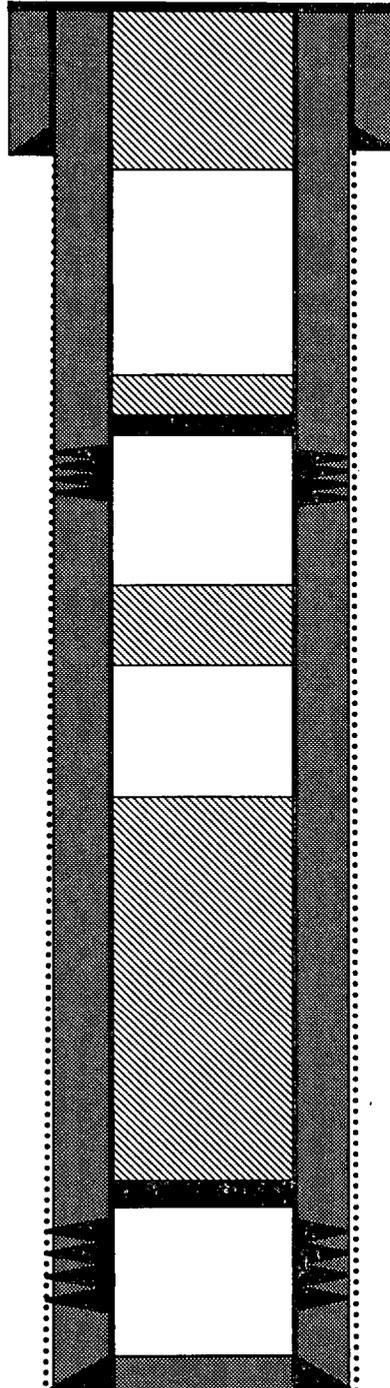
East Blanco Pictured Cliffs / Burro Canyon, Tertiary

1760' FSL & 1760' FEL, Section 5, T-28-N, R-2-W, Rio Arriba County, NM

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 Elevation: 7228' GI
 7240' KB

12-1/4" Hole



TOC circulated to surface
 per completion report

8-5/8" 24#, Casing set @ 253'
 Cement with 110 sxs, circulated to surface

Plug #3: 303' - 0'
 Class B cement, 44 sxs

Set CR @ 1509'

Plug #3: 1509' - 1409'
 Class B cement, 17 sxs

San Jose Perforations:
 1559' - 1620'

See COA

Plug #2: 2133' - 2033'
 Class B cement, 17 sxs

Nacimiento @ 2083'

Ojo Alamo @ 3003'

Kirtland @ 3395'

Fruitland @ 3533'

Pictured Cliffs @ 3572'

Plug #1: 3548' - 2953'
 Class B cement, 73 sxs

Set CR @ 3548'

Pictured Cliffs Perforations:
 3598' - 3684'

7-7/8" Hole

5.5" 17#, K-55 Casing @ 3851'
 Cement with 975 sxs, circulate 20 sxs to surface

3850' TD
 3817' PBTD

UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT OFFICE
6251 COLLEGE BLVD.
FARMINGTON, NEW MEXICO 87402

Attachment to notice of
Intention to Abandon:

Re: Permanent Abandonment
Well: Jicarilla 29-02-05 #1

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
2. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750.
3. The following modifications to your plugging program are to be made:
 - a) Bring the top of plug #2 to 1993' to cover the Nacimiento top

You are also required to place cement excesses per 4.2 and 4.4 of the attached General Requirements.

Office Hours: 7:45 a.m. to 4:30 p.m.