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 1000 Rio Brazos Rd., Aztec, NM 87410
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 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.) 1. Type of Well: Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other CO2 <input type="checkbox"/>		WELL API NO. 30-003-20039 5. Indicate Type of Lease STATE <input checked="" type="checkbox"/> FEE <input type="checkbox"/> 6. State Oil & Gas Lease No. LH4762
2. Name of Operator Kinder Morgan CO2 Company, L.P.		7. Lease Name or Unit Agreement Name Cottonwood Canyon 8. Well Number CC-11
3. Address of Operator 830 East Main, Suite 220, Springerville, AZ 85938		9. OGRID Number 34945 10. Pool name or Wildcat Abo Reef
4. Well Location Unit Letter <u>N</u> : <u>660</u> feet from the <u>South</u> line and <u>660</u> feet from the <u>West</u> line Section <u>16</u> Township <u>01N</u> Range <u>21W</u> NMPM <u>Catron</u> County		
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 7416 GR		

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

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

Plug and Abandonment Procedure and Reclamation Plan attached.

Proposed start date for Cottonwood Canyon Plug and Abandonment program (nine wells total): May 15, 2017.

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 Michael Hannigan TITLE Senior EHS Engineer DATE 2/14/2017

Type or print name Michael Hannigan, P.E. E-mail address: michael_hannigan@kindermorgan.com PHONE: 970-882-5532
For State Use Only

APPROVED BY: Will Jones TITLE ENGR / DIST IV DATE 3-6-17
 Conditions of Approval (if any):

A-Plus Well Service, Inc.
PLUG AND ABANDONMENT PROCEDURE

January 20, 2017

Cottonwood Canyon Unit #11

Page 1 of 2

Unit N, 660' FSL and 660' FWL, Section 16, T-01-S, R-21-W
Catron County, New Mexico / API 30-003-20039
Lat: N 34° 12' 51.68" / Long: W -109° 2' 40.27"

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. This project will utilize a closed-loop system handle waste fluids circulated from the well and cement wash up.

1. Install and test location rig anchors or set a base beam. 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.
2. RU Wireline lubricator; and then pump 30 bbl. or more water down the casing. RIH and set 4.5" cement retainer at 2804'. Load casing with fresh water. Pressure test 4.5" casing to 1000 PSI. *If the casing does not test, then spot or tag subsequent plugs as appropriate.*
3. NU relief line and blow down well. ND wellhead and NU BOP. Shell pressure test BOP high and low. Prepare and tally a 2.375" tubing workstring. TIH with tubing and sting into CR at 2804'.
4. **Plug #1 (Precambrian perforations, 2904' to 2804')**: Establish rate into existing perforations (2854' to 2904'). Mix and pump 50 sxs Class B cement, squeeze all below the CR into the Precambrian perforations. Sting out of CR and reverse circulate the well clean. TOH.
5. **Plug #2 (7" Casing Shoe and Abo top, 2796' to 2391')**: Perforate the 4.5" casing with 3 HSC holes at 2796'. Establish rate into the squeeze holes, if the casing tested. Set a 4.5" CR at 2746'. Mix 81 sxs Class B cement, squeeze 47 sxs outside the casing and leave 34 sxs inside to isolate the 7" casing shoe and Abo top. PUH.
6. **Plug #3 (Amos top, 2206' to 2106')**: Mix 12 sxs Class B cement and spot a balanced plug inside the 4.5" casing to isolate the formation top. PUH.
7. **Plug #4 (9-5/8" Casing Shoe, Yeso and Glorita tops, 1625' to 1177')**: Mix 38 sxs Class B cement and spot a balanced plug inside the 4.5" casing to isolate the 9-5/8" casing shoe and cover the formation tops. PUH.
8. **Plug #5 (San Andres top, 868' to 768')**: Perforate 6 deep penetrating HSC holes at 868' through all 3 casing strings. Attempt to establish circulation to surface out the 3 annuli (4.5"x7", 7"x9.625" and 9.625"x13.375"). Modify the following plug as appropriate. Set a 4.5" CR at 818'. Mix and pump 200 sxs Class B cement, squeeze cement into each annulus if possible; then leave 12 sxs inside the 4.5" casing to isolate the Glorieta top. TOH.

A-Plus Well Service, Inc.

PLUG AND ABANDONMENT PROCEDURE

January 20, 2017

Cottonwood Canyon Unit #11

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9. **Plug #6 (13-3/8" Casing Shoe, 136' to Surface):** Perforate 6 deep penetrating HSC holes at 136' through all 3 casing strings. Attempt to establish circulation to surface out the 3 annuli (4.5"x7", 7"x9.625" and 9.625"x13.375"). Modify the following plug as appropriate. Mix 150 sxs Class B cement and pump down the 4.5" casing to squeeze cement into each annulus if possible; then leave 14 sxs inside the 4.5" casing as the surface plug. Shut in well and WOC.
10. ND the BOP and dig out the wellhead. Complete a hot work permit and cut off the wellhead. Fill annuli with cement as necessary. Install P&A marker to comply with regulations. Record GPS coordinate for P&A marker on tower report. Photograph P&A marker in place. RD, MOL and cut off anchors.

Cottonwood Canyon #11

Current

Abo Reef Pool

Unit N, 660' FSL & 660' FWL, Section 16, T-1-S, R-21-W

Catron County, NM / API #30-003-20039

LAT: 34° 12' 51.68" LONG: -109° 2' 40.27"

Today's Date: 1/20/17

Spud: 8/01/08

Completion: 8/17/08

Elevation: 7416' GL
7430' KB

17-1/4" hole

Cavern at 700'

San Andres at 818'

Glorieta at 1227'

Yeso at 1450'

12-1/4" Hole

Lost Circulation
Zone 2147'

Amos Wash at 2156'

Abo at 2441'

8-3/4" Hole

Precambrian at 2891'
Fractured CO₂ Reservoir

6-1/4" Hole

TD 2994'

4-1/2" Annulus TOC at Surface (CBL)

7" Annulus TOC at Surface (Sundry)

9-5/8" TOC at Surface (Sundry)

13-3/8" 48# Casing set at 86'
Cement to surface, 100 sxs

9-5/8" Estimated TOC at 1100'

(Calculated using the drilling record: final
cementing circulating pressure at 80 PSI;
9.3 ppg mud and 12.5 ppg cement density.)

9-5/8" 36# Casing set at 1575'
Cement with 953 cf
Sundry: "did circulate cement to surface";
no volume reported.

4-1/2" DV Tool at 2510'

7" 23# Casing set at 2746'
Cement with 906 cf
Sundry: "did circulate cement to surface";
Drig record: "trace of cement to surface".

TOC at 2820' (CBL)

Granit Wash Perforations:
2854' to 2904'

4-1/2" 11.6# Casing set at 2994'
Cement with 440 sxs total,
2 stage cmt job; ran CBL.

Cottonwood Canyon #11 Proposed Plugged Well

Abo Reef Pool

Unit N, 660' FSL & 660' FWL, Section 16, T-1-S, R-21-W

Catron County, NM / API #30-003-20039

LAT: 34° 12' 51.68" LONG: -109° 2' 40.27"

Today's Date: 1/20/17

Spud: 8/01/08

Completion: 8/17/08

Elevation: 7416' GL
7430' KB

Plug 6: 136' to Surface
Class B cement, 150 sxs,
14 inside and 136 outside.

4-1/2" Annulus TOC at Surface (CBL)

7" Annulus TOC at Surface (Sundry)

9-5/8" TOC at 1100' (Calculated)

13-3/8" 48# Casing set at 86'
Cement to surface, 100 sxs

Perforate at 136'

Plug 5: 868' to 768'
Class B cement, 200 sxs,
12 sxs inside and 186 outside.

Set 4.5" CR at 818'

Perforate at 868'

9-5/8" Estimated TOC at 1100', (calculated)

Plug 4: 1625' to 1177'
Class B cement, 38 sxs

9-5/8" 36# Casing set at 1575'
Cement with 953 cf
Sundry: "did circulate cement to surface".

Plug 3: 2206' to 2106'
Class B cement, 12 sxs

4-1/2" DV Tool at 2510'

Plug 2: 2796' to 2391'
Class B cement, 81 sxs
34 inside and 47 outside.

7" 23# Casing set at 2746'
Cement with 906 cf
Sundry: "did circulate cement to surface";
Drig record: "trace of cement to surface".

Set 4.5" CR at 2746'

Perforate at 2796'

TOC at 2820' (CBL)

Set 4.5" CR at 2804'

Plug 1: 2904' to 2754'
Class B cement, 50 sxs:
below CR and none above.

4-1/2" 11.6# Casing set at 2994'
Cement with 440 sxs total,
2 stage cut job; ran CBL.

17-1/4" hole

Cavern at 700'

San Andres at 818'

Glorieta at 1227'

Yeso at 1450'

12-1/4" Hole

Lost Circulation
Zone at 2147'

Amos Wash at 2156'

Abo at 2441'

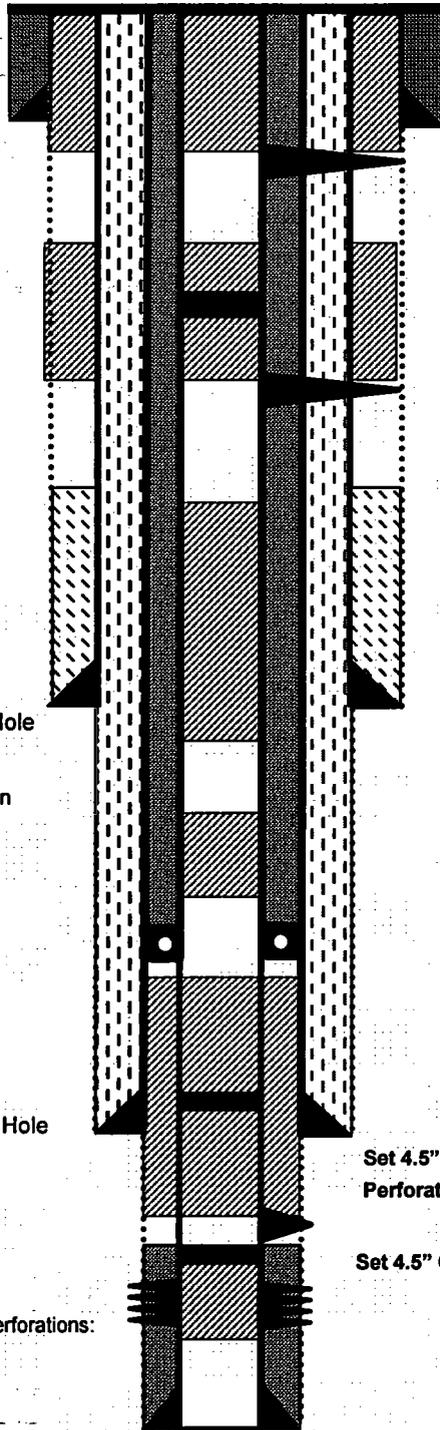
8-3/4" Hole

Precambrian at 2891'
Fractured CO₂ Reservoir

Granit Wash Perforations:
2854' to 2904'

6-1/4" Hole

TD 2994'



**PROPOSED RECLAMATION PLAN
Cottonwood Canyon Unit #11
API 30-003-20039**

Final-site reclamation and revegetation of the CC-11 location will consist of re-grading the location to match, as closely as possible, the surrounding contours followed by scarification of previously disturbed areas and the broadcast application of an appropriate seed mix. Any compacted portions of the location will be scarified to a minimum depth of 12 inches while all other areas of disturbance will be scarified to a minimum depth of 6 inches. Following scarification all disturbed areas of the location, including access roads, will be seeded with a mix of plant species appropriate for an arid sandy environment.