

30-015-35365

Cementing and Mud Details
Cimarex Energy Co. of Colorado
Crow Flats 15 State Com No. 1
Unit Letter D Section 15
T16S - R28E Eddy County, NM

1. Cementing & Setting Depth:

13 3/8" Surface

Set 430' of 13-3/8" H-40 48# ST&C casing. Cement with 430 Sx. Of Class "C" cement + additives, circulate cement to surface.

8 5/8" Intermediate

Set 1800' of 8-5/8" J-55 32# LT&C casing. Cement lead with 250 sx Class POZ/C Cement + additives and tail with 175 sx Class "C" + additives, circulate cement to surface.

5 1/2" Production

Set 9950' of 5-1/2" P-110 17# LT&C casing. Cement with 300 Sx. of Class POZ/C Cement + additives. Estimated top of cement 6050'.

2. Pressure control Equipment:

A 13-3/8" 5000 PSI working pressure B.O.P. consisting of one set of blind rams and one set of pipe rams and a 5000# annular type preventor. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head below 6000'. A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor. BOP unit will be hydraulically operated. BOP will be nipped up on the 9 5/8" casing and will be operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling.

3. Proposed Mud Circulating System:

Depth 0-430'

Mud Wt: 8.4-8.6

Viscosity: 30-32

Fluid Loss: May lose Circ

Type: Mud Fresh water spud mud add paper to control seepage and high viscosity sweeps to clean hole.

Depth: 430' - 1800'

Mud Wt: 9.7 - 9.9

Viscosity: 28 - 29

Fluid Loss: May lose circ.

Type: Brine water. Add paper as needed to control seepage and add lime to control pH (9-10). Use high viscosity sweeps to clean hole.

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Depth: 1800' - 8300'

Mud Weight: 8.4 - 9.9

Viscosity: 28 - 29

Fluid Loss: NC

Type: Fresh water. Paper for seepage. Lime for pH (9 - 9.5)

Depth: 8300' – 9950'

Mud Wt: 8.45 - 8.9

Viscosity: 28 - 29

Fluid Loss: NC

Type: Cut brine. Caustic for pH control.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs. Mud system monitoring equipment with derrick floor indicators and visual/audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until production casing is run and cemented.



Cimarex Energy Co. of Colorado

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A subsidiary of Cimarex Energy Co. ♦ A NYSE Listed Company ♦ "XEC"

January 15, 2007

Oil Conservation Division
District II Office
1301 W. Grand Ave.
Artesia, New Mexico 88210
Attn: Mr. Bryan Arrant

Re: Statewide Rule 118
Hydrogen Sulfide Gas Contingency Plan
Proposed Crow Flats 15 State Com No. 1 Well

Dear Mr. Arrant:

In accordance with NMAC 19.15.3.118 C. (1) governing the determination of the hydrogen sulfide concentration in gaseous mixtures in each of its operations, Cimarex Energy Co. of Colorado does not anticipate that there will be enough H₂S from the surface to the Morrow formations to meet the OCD's minimum requirements for the submission of a contingency plan for the drilling and completion of the following test(s):

Crow Flats 15 State Com No. 1
660' FNL & 660' FWL
Section 15-T16S-R28E
Eddy County, NM

If anything further is needed regarding this issue, or if you have any questions, please feel free to contact the undersigned at 972-443-6489.

Yours truly,

A handwritten signature in black ink that reads "Zeno Farris". The signature is written in a cursive, flowing style.

Zeno Farris
Manager, Operations Administration