

## ROCKY MTN FUEL CO G #2

- 0 Note: Production Casing = 4.5" OD, 11.6#/ft, N-80; Production Hole Drilled @ 7.875"; MI ~15 additional 2.375" prod tbg jts.
- 1 Provide at least 48 notice to OCGCC prior to rig up. Call foreman or lead operator at least 24 hr prior to rig move. Request they catch and remove the plunger, isolate production equipment and remove any automation prior to rig showing up. Install perimeter fence as needed.
- 2 MIRU slickline services. Pull bumper spring and tag bottom. Gyro ran 7/29/2013. RDMO slickline services.
- 3 Notify IOC when rig mobilizes to location to generate workorder for flowline removal & one call for line locates.
- 4 Prepare location for base beam equipped rig.
- 5 MIRU, kill as necessary using clean fresh water with biocide and circulate. ND WH. NU BOP. Unseat landing jt, LD.
- 6 Notify cementers to be on call. Provide volumes listed below:
  - 6\_1 Niobrara Suicide: 160 sx 50/50 Poz "G" w/ 20% silica flour, 3% gel, 0.1% sodium metasilicate and 0.4% FL-52 mixed at 13.5 ppg and 1.71 cf/sk (45.2bbls) (9"+ 20% Caliper Log in file);
  - 6\_2 SX/SH Suicide: 520 sx class "G", w/0.25 pps cello flake, 0.4% CD-32, 0.4% ASA-301 mixed at 15.8 ppg and 1.15 cf/sx (102.9bbls) (10.5"+20% Caliper Log in file);
  - 6\_3 Surface Suicide: 470 sx Type III CaCl<sub>2</sub> cement mixed at 14.0 ppg and 1.53 cf/sx (116.8bbls) (732' in 12" OH+20% excess, 702' inside 4.5" production casing, and 9 bbls on top of CICR)
- 7 TOO 2.375" production tubing. Stand Back.
- 8 MIRU WL. RIH gauge ring for 4.5" 11.6#/ft casing to 8120'. RIH CIBP w/ WL. Set at 8040'. PT Casing to 1000 psi. PU dump bailer, dump bail 2 sx class 'G' cement on CIBP.
- 9 Run CBL from CIBP to Surface.
- 10 PU 2 - 1' 3-1/8" perf guns with 3 spf, 0.5" dia 120° phasing. Shoot 1' of squeeze holes at 7456' and 6930'.
- 11 PU CICR. RIH and set at 6960'+/-20' pending collar locator on CBL. RD WL.
- 12 RIH w/ 2.375" tubing while hydrotesting to 3,000 psi.
- 13 RU Cementers. Pump Niobrara Suicide: 160 sx 50/50 Poz "G" w/ 20% silica flour, 3% gel, 0.1% sodium metasilicate and 0.4% FL-52 mixed at 13.5 ppg and 1.71 cf/sk (45.2bbls) (9"+ 20% Caliper Log in file); to place suicide squeeze between perfs. Underdisplace and sting out of CICR to leave 3 bbls on top of retainer.
- 14 PUH 6 stands. Circulate 95bbls water containing biocide to clear tubing.
- 15 Place 9.0 ppg mud containing biocide from 6772' to 5250' (~25bbls). TOO & WOC 4 hrs.

- 16 RUWL & PU 2 - 1' 3-1/8" perf guns with 3 spf, 0.5" dia 120° phasing. Shoot 1' of squeeze holes at 5250' and 4395'.
- 17 PU CICR. RIH and set at 4425'+/-20' pending collar locator on CBL. RD WL.
- 18 RIH w/ 2.375" tubing.
- 19 RU Cementers. Pump 5 bbl water w/ biocide, 20 bbl Sodium Metasilicate, and another 5 bbl spacer immediately preceding cement.
- 20 Pump SX/SH Suicide: 520 sx class "G", w/0.25 pps cello flake, 0.4% CD-32, 0.4% ASA-301 mixed at 15.8 ppg and 1.15 cf/sx (102.9bbls) (10.5"+20% Caliper Log in file); to place suicide squeeze between perfs. Underdisplace and sting out of CICR to leave 3 bbls on top of retainer.
- 21 PUH 5 stands. Circulate 60bbls water containing biocide to clear tubing. TOOH & WOC 4 hrs.
- 22 Place 9.0 ppg mud containing biocide from 4235' to 1412' (~46bbls). TOOH & WOC 4 hrs.
- 23 RUWL & PU 2 - 1' 3-1/8" perf guns with 3 spf, 0.5" dia 120° phasing. Shoot 1' of squeeze holes at 1412' and 680'.
- 24 PU CICR. RIH and set at 710'+/-20' pending collar locator on CBL. RD WL.
- 25 RIH w/ 2.375" tubing.
- 26 RU Cementers. Pump Surface Suicide: 470 sx Type III CaCl<sub>2</sub> cement mixed at 14.0 ppg and 1.53 cf/sx (116.8bbls) (732' in 12" OH+20% excess, 702' inside 4.5" production casing, and 9 bbls on top of CICR) to place suicide squeeze between perfs. Underdisplace and sting out of CICR to leave 9 bbls on top of retainer.
- 27 TOOH circulating as necessary to clear tubing. WOC 4 hrs. Tag Cement. Cement top needs to be above 150'; Proceed assuming TOC is above 150'. Otherwise, call production engineer.
- 28 MIRU WL. RIH 4.5" CIBP to 100'. Set, PT to 1000 psi for 15 min. If tests, RDMO WL and WO rig.
- 29 Supervisor submit paper copies of all invoices, logs, and reports to Joleen Kramer.
- 30 Excavation crew to notify One Call to clear excavation area around wellhead and for flowlines.
- 31 Excavate hole around surface casing enough to allow welder to cut 8 5/8" casing minimum 5' below ground level.
- 32 Welder cut 8.625" casing minimum 5' below ground level.
- 33 MIRU ready cement mixer. Use 4500psi compressive strength cement, (NO gravel) fill stubout.
- 34 Spot weld on steel marker plate. Marker should contain Well name, Well number, legal location (1/4 1/4 descriptor) and API number.
- 35 Properly abandon flowlines per Rule 1103.
- 36 Back fill hole with fill. Clean location, level.

37        Submit Form 6 to COGCC ensuring to provide 'As performed' WBD identifying operations completed.

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