## In Lieu of Form 3160 (June 1990)

# UNITED STATES DEPARTMENT OF INTERIOR

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DEC 01 2008

FORM APPROVED Budget Bureau No 1004-0135

SUNDRY NOTICE AND REPORTS ON WELLS  Do not use this form for proposals to drill or to deepen or reentry to a different reservoir  TO DRILL' for permit for such proposals  Bureau of Lar Farmingtor Use "APPLICATION"		Expires March 31, 1993
		d Wanage ខែតិនិះ Designation and Serial No. Field Officians 1771
,		6. If Indian, Allottee or Tribe Name
SUBMIT IN TRIPLICATE		7 If Unit or CA, Agreement Designation Rosa Unit
1 Type of Well Oil Well Gas Well X Other		8 Well Name and No Rosa Unit #5C
Name of Operator     WILLIAMS PRODUCTION COMPANY		9 API Well No 30-039-30178
Address and Telephone No. PO Box 640 Aztec, NM 87410-0640		10 Field and Pool, or Exploratory Area LAGUNA SECA GALLUP
4 Location of Well (Footage, Sec., T., R., M., 1845' FSL & 1735' FEL S	or Survey Description) ec 26, T31N, R6W NMPM	11. County or Parish, State R10 Arriba, New Mexico
CHECK APPROPRI	ATE BOX(s) TO INDICATE NATURE OF NOTICE, REP	ORT, OR OTHER DATA
TYPE OF SUBMISSION	ТҮРЕС	DF ACTION
Notice of Intent  X Subsequent Report  Final Abandonment	Abandonment Recompletion Plugging Back Casing Repair Altering Casing X Other <u>Mancos Completion</u>	Change of Plans New Construction Non-Routine Fracturing Water Shut-Off Conversion to Injection Dispose Water (Note Report results of multiple completion on Well Completion or Recompletion Report and Log form.)
directionally drilled, give subsurface location	Clearly state all pertinent details, and give pertinent dates, inc s and measured and true vertical depths for all markers and	zones pertinent to this work )*
& nipple up BOP's, floor, tongs. Strip tub, Hanger	spot in and rig up rig & equipment. Blow well down (to off, Strap 2 joints go in hole tag @ 8185', LD 11 jts, pul imes) got too dark to go any farther. SISW, no accide	Il 20 stands strapping pipe, tie back on double fast
sample, RU BWWC & WL set 10K 5.5" CIBP @ 78 (lots of compressed gas), PU 40' dump bailer, hand	ols 4% KCL down tubing, TOOH w/ tbg 22 stds out well 60', load well w/ 180 bbls 4% KCL wtr & Psi test to 1250 of mix & load DB w/ cmt, RIH to 7860' & dump cmt on top & & 156 jts 2 7/8" tbg ( 5182' ), install TIW valve in tbg,	psi for 30 mins w/ no leak off, blow well down to FB tank of 5.5" CIBP, POOH & RD WL crew, ND pack off & NU
	ts tbg ( 238 total jts @ 7825' ), RU 2.5" P/S, tie back to s 5" P/S, change over to 2 lines, TOOH w/ bit, LD 2 7/8'	
I hereby certify that the foregoing is true and	correct	ou only fill

UIL GIMD. VIV. DIST. 3 Signed \_ Title Drilling C O M Date 12-1-08 Larry Higgins (This space for Federal or State office use) Approved by\_ Title Date \_ Conditions of approval, if any: ASCEPTED FOR RECORD

Title 18 U.S.C. Section 1001, makes it a crime for any person knowingly and willfully to make to any department or agency of the United States any false figitivous or fraudulent statements or representations as to any matter within its jurisdiction





## Page 2 - RU #5C Mancos

### 09-23-2008

Recap: ND stripper head & NU WL packoff, RU WL, perforate Greenhorn bottom up, 7715' – 7759', w/ 3 SPF @ 180 degree phazing w/ 3 3/8" SFG, .34" Dia, 21" Pen & 10 Grm Chgs, 10 locations, 30 total shots, all shots fired, RD BWWC, RD rig floor, NDBOP stack & NU Frac valve & Y, RU BJ Services, run DFIT test w/ Data Trap on 2" csg, RD BJ, RD rig, pump, pit & all hardline, police loc, prepare to move rig in the A.M., set up FB unit.

## 09-25-2008

Recap: RU BJ Services to Frac Y, Psi test lines @ 6000 psi, BD Greenhorn @ 4180 psi, est 6 bpm @ 3140 psi, pump 2000 gals 15% HCL, pump 40 bbl pad, Frac Greenhorn w/ 8500 lbs 100 mesh WS @ .25 ppg, .25 ppg, .50 ppg, followed w/ 89,020 lbs 40/70 WS @ .50 ppg, .75 ppg, 1.0 ppg & 1.25 ppg, prop carried in slick wtr, MTP = 4186 psi, ATP = 3543 psi, MIR = 30 bpm, AIR = 26.4 bpm, ISIP = 2965 psi, 5 min SI = 2821 psi, 10 min = 2772 psi, 15 min = 2740 psi, total wtr to recover = 3022 bbls, total FRW-14 = 124 gals, RD BJ Services, RU FB to well, SICP = 2500 psi, open well to FB tank on 8/64" choke & record flow data.

## 09-26-2008

Recap: Flow well thru 8/64" choke to FB tank & record FB data, Mobe rig f/ Rosa Unit #187C to loc, spot in rig ramp & all surface equipment, RU rig over well, RU pump, pit & all hardline, ND frac Y & NUBOP stack, RU rig floor & all handling equipment, prepare to C/O fill Monday A.M. flow well thru 10/64" choke & record FB data.

## 09-27-2008

Recap: Flow well back on 16/64" choke thru 3 stage separator, record FB data, for details see FB report.

### 09-29-2008

Recap. SICP = 375 psi, blow well down to FB tank, MU 1/2 M/S - open ended, tally, rabbit & TIH w/ 13 jts 2 7/8" tbg, well started to unload wtr up the tbg, stab TIW valve & shut BOP's, flow well to FB tank on 1" choke, @ 10:00 open well to 2" open line, well is flowing med gas cut wtr, record flow data, release rig crew & continue to flow well on 2" open line to FB tank, record flow data.

### 09-30-2008

Recap: TOOH w/ 13 jts tbg & B/O 1/2 mule shoe, well is surging approx 1/4 bbl wtr every 10 to 15 min, MU 1/2 M/S - Exp Chk, tally, rabbit & TIH w/ 235 jts tbg, tag fill @ 7715', took a little longer to PU tbg due to floor height, RU 2.5" P/S, break circ w/ rig pump, circ gas out of well bore, C/O 137' of fill f/ 7715' to 7852', circ bottoms up, RD P/S TOOH w/10 stds tbg, finish circ well bore clean, SDFN.

## 10-01-2008

Recap: SICP = 600 psi, blow well down, TIH & tag bridge @ 7836', break circ w/ rig pump & C/O bridge & fill to 7852', circ well bore clean w/ 4% KCL wtr, TOOH w/ tbg & B/O Exp - chk, guts were missing out of chk, will be on top of cmt plug @ 7852', MU 1/2 M/S - open ended & TIH w/ 20 stds tbg, Install TIW, shut & lock rams, prepare to run Spectra Scan survey in the A M

### 10-02-2008

Recap: SICP = 1500 psi, blow well down to FB tank, RU B & R SL & calibrate survey tool, RIH & run Spectra Scan survey over Greenhorn perfs, RD SL & Pro Technics, bleed well down again, MU 4 3/4" bit & B/S, TIH w/ 64 stds tbg & set bit @ 4000', break circ w/ air only @ 700 psi, unload wtr off well to FB tank, TIH & tag @ 7852', break circ w/ air only @ 1100 psi, unload wtr off well to FB tank on 32/64" choke, TOOH w/ 10 stds tbg, flow well to FB tank on 24/64" choke, record FB data.

### 10-03-2008

Recap. Flow well on 24/64" choke to FB tank, record FB data, TIH w/ 10 stds tbg & tag cmt plug @ 7852', TOOH w/ 10 stds, shut & lock rams, PU tools & turn well over to FB crew, Flow well on 24/64" choke to FB tank, record FB data.

### 10-04-2008

Recap: Flow well to FB tank on 24/64" choke & record FB data.

## 10-05-2008

Recap. Flow well to FB tank on 24/64" choke & record FB data

### 10-06-2008

Recap: Flow well to tank on 24/64" choke & record FB data, TRVL to loc, HTGSM, TIH w/ 10 jts tbg & tag @ 7840', TOOH w/ bit, WO orders, turn well over to FB crew, flow well to tank on 16/64" choke & record FB data

## 10-07-2008

Recap: Flow well on 16/64" choke to FB tank, TRVL to loc, HTGSM, ND stripper head & NU WL pack off, RU WL crew, RIH & WL set 5.5" 10K CBP @ 7690', POOH, blow gas off well, Psi test csg & plug @ 6000 psi, tested good, perf Mancos 1st bottom up 3 SPF w/ 3 3/8" SFG f/ 7625' to 7675', .34" Dia, 21" Pen & 10 Grm Chgs, 11 loc w/ 33 holes & all shots fired, BD Mancos 1st @ 2510 psi, run DFIT test w/ Data trap on csg, record data until Thursday A.M, PU tools & SIWFN.

### 10-08-2008

Recap: RD rig floor & ND BOP stack, NU frac Y & prepare to frac when BJ is ready.

### 10-11-2008

Recap: RD BJ Services, HTGSM w/ all contractors, Psi test lines @ 5000 psi, BD Mancos 1st stage @ 3387 psi, pump 2000 gals 15% HCL, pump 2000 gals CL gel @ 10 bpm, acid @ perfs = 3656 psi, Frac Mancos 1st w/ 7760 lbs 100 Mesh WS @ .25, .25 & .50 ppg, followed w/ 7966 lbs 40/70 WS @ .50 ppg, @ 30 bpm when .50 ppg 40/70 hit perf = 4880 psi, increased tp 5200 psi very fast, SD sand & start 4% KCL pad, Psi increased to 5700 psi & slowly dropped to 5250, flush w/ 223 bbls 4% KCL, MIR = 30 bpm, AIR = 20 bpm, MTP = 5686 psi, ATP = 4197 psi, ISIP = 3116 psi, 5 min = 2607 psi, 10 min = 2514 psi, 15 min = 2456 psi, total wtr to recover = 1276 bbls, total FRW-14 = 55 gals, RD BJ Services, ND frac Y & NUBOP stack, RU rig floor, flow well to FB tank on 8/64" choke & record FB data.

## Page 3 - RU #5C Mancos

### 10-12-2008

Recap: Flow well to FB tank on 8/64" choke & record FB data, increase to 12/64" choke @ 16:00 & to 16/64" choke @ 20:00, for detailed information see FB report.

### 10-13-2008

Recap. Flow well thru 3 stage test separator on 16/64" choke, record FB data, swap to 32/64" choke for 3 hrs, open to 2" open line & try to get well to log off, release rig crew, logged off @ 14:00 hrs, check well on the hour & monitor for flow.

### 10-14-2008

Recap. Flow well to FB tank on 2" open line, TRVL to loc, HTGSM, MU 1/2 MS open ended & TIH w/ 63 stds tbg & well started unloading hvy wtr out the tbg, install TIW & flow wtr to rig pit, fill rig pit & swap over to FB tank, well logged off, TIH w/ 232 total jts tbg & tag hard @ 7630', pull up 2 stds tbg & unload wtr off well w/ air only @ 1600 psi, flow wtr to FB tank on 2" open line, SD air & turn over to FB crew, flow well to FB tank & record FB data.

## 10-15-2008

Recap: Flow well on 2" open line to FB tank, record FB data, TRVL to loc, HTGSM, TIH w/ 2 stds tbg & tag fill @ 7630', RU 2 5" P/S & break circ w/ rig pump ( reverse circ ), circ gas out of well bore, choke 2" ball valve @ surface, C/O 60' of fill to 7690', circ bottoms up + 50 bbls, rets are showing no sand, LD 2 jts tbg, RD P/S, TOOH w/ 9 stds tbg & install TIW valve, prepare to run survey in the A.M., shut & lock pipe rams.

### 10-16-2008

Recap: RU H & H Slick Line & calibrate survey tool, RIH w/ slick line & tag @ 7687', survey Mancos 1st stage perfs w/ Spectra Scan survey tool, RD slick line, circ gas out of well bore w/ rig pump, choke back flow @ surface w/ ball valve, TOOH w/ tbg, ND stripper head & NU WL pack off & RU BWWC, RIH & WL set 5.5" 8K CBP @ 7600', POOH & found a sleeve off of setting tool is still in well, contact Engineer & discuss next step, Psi test plug @ 5000 psi w/ no leak off, contact Baker tools to locate overshot to fish ST sleeve, release BJ Services, SDFN

### 10-17-2008

Recap MU Baker tools tapered tap, bumper sub & x-overs, SD & repair brakes on main drum, TIH w/ 115 stds 2 7/8" tbg, PU 1 jt & tag @ 7600', put 5K on fish, PU approx 1' & bump fish w/ BS, TOOH w/ tbg & B/O fish & tools, perforate Mancos 2nd stage bottom up f/ 7275' to 7400', made two runs due to short in gun on 1st run, 19 loc w/ 57 holes, all shots fired, POOH & RD WL crew, BD Mancos 2nd stage @ 3703 psi, start DFIT test, 1 bpm = 2068 psi, 2 bpm = 2640 psi, 3 bpm = 2511 psi, 4 bpm = 2529 psi, 5 bpm for 5 minutes = 2513 psi, start step down, 4 bpm = 2346 psi, 3 bpm = 2300 psi, 2 bpm = 2223 psi & 1 bpm = 2139 psi, ISIP = 2022 psi, watch for 30 min, SIW & will retrieve Data Trap on Sunday morning.

### 10-20-2008

Recap: SU equip, help BJ Engineer remove Data Trap, RD rig floor, NDBOP stack & NU frac Y & prepare to frac well on Wednesday 10/22/08.

### 10-22-2008

Recap: RU BJ Services, W/O parts to come out of Farmington to fix Hydration Unit, Psi test lines @ 5000 psi, BD Mancos 2nd stage @ 2939 psi, pump 2000 gals 15% HCL acid & 2000 gals CL gel @ 10 bpm, frac Mancos 2nd w/ 7640 lbs 100 Mesh W/S @ .25, .5 & .50 ppg, followed w/ 117,654 lbs 40/70 W/S @ .50, .75, 1.0 & 1.25 ppg, prop carried in slick wtr, MIR = 41 bpm, AIR = 32.6 bpm, MTP = 3366 psi, AIR = 2924 psi, ISIP = 2642 psi, 5 min SI = 2486 psi, 10 min = 2441 psi, 15 min = 2411 psi, total fluid to recover = 3882 bbls, total FRW-14 = 157 gals, RD BJ Services f/ WH, open well to FB tank on a 8/64" choke @ 2130 psi, ND frac Y & NUBOP stack, RU rig floor & prepare to run tbg when well allows, flow well to FB tank & record FB data.

### 10-23-2008

Recap: Flow well to FB tank on 8/64" choke, @ 8:00 hrs swap to 10/64" choke, record FB data, Rig crew is doing maintenance on rig.

### 10-24-2008

Recap: Flow well to FB tank & record FB data, for details see FB report.

### 10-25-2008

Recap. Flow well to FB tank & record FB data, for details see FB report.

### 10-26-2008

Recap: Flow well to FB tank & record FB data, get well flowing thru 3 stage test separator this morning & start monitoring gas, for FB details see FB data.

## 10-27-2008

Recap: Flow well thru 3 stage test separator on 20/64" choke to FB tank & record FB data, TRVL to loc, HTGSM, open well to FB tank on 2" open line, MU 1/2 M/S & TIH w/ 111 stds tbg, (7305') RU 2.5" P/S, circ gas out of well bore w/ rig pump & choke back @ surface, PU 3 jts tbg & tag fill @ 7380', C/O 190' of fill to 7570', circ bottoms up, RD 2.5" P/S, LD 8 jts on float & set 1/2 M/S @ 6909', prepare to run tracer survey in the A.M., PU tools & TRVL to Farmington.

### 10-28-2008

Recap: SICP = 500 psi, blow well down, RU H & H WL & calibrate Spectra Scan survey tool, RIH to 6800' & log down to 7600' @ 30' per min, log back up to 6800' @ 30' per min, RD Pro Technics & WL crew, blow well down to FB tank, TOOH w/ tbg & B/O 1/2 M/S, ND stripper head, NU WL pack off, RU BWWC, RIH w/ 5.5" 8K CBP & WL set @ 7260', RU BJ Services, HTGSM w/ all contractors on loc, Psi test 5.5" plug @ 5000 psi, tested good, receive a call f/ Engineer to hold off on perforating due to change in DFIT, release BJ & BWWC, bleed well down to FB tank, RD rig floor, NDBOP stack & old frac valve (3 fracs ran thru valve), install new frac valve, SDFN.

## 10-29-2008

Recap: Install frac Y on top of new frac valve, load well w/ 102 bbls wtr & Psi test csg & blind rams @ 5000 psi, tested good, bleed well to FB tank, Perforate Olive interval 3 SPF, bottom up w/ 3 3/8" SFG, .34" Dia, 21" Pen & 11 Grm Chgs, 5 total loc w/ 15 holes, all shots fired, BD Olive @ 4586 psi & run DFIT test, 2.5 bpm = 2512 psi, 3.5 bpm = 2590 psi, 4.5 bpm = 2720 psi, 5 bpm = 2780 psi & pump for 5 min, start step down, 4 bpm = 2660 psi, 3 bpm = 2523 psi, 2 bpm = 2440 psi & 1 bpm = 2305 psi, ISIP = 2214 psi, watch for 30 min, RD BJ Services & BWWC f/ WH, SIW & monitor w/ Data Trap, drain up lines & TRVL to Farmington.

## Page 4 - RU #5C Mancos

## 10-31-2008

Recap: RU BWWC, CCL would not work, pour new rope socket, RIH w/ 1st gun & gun would not fire, POOH & found gun wet, rebuild gun & perf Mancos 3rd stage bottom up, 3 SPF w/ 3 3/8" SFG f/ 7250' to 7055', .34" Dia, 21" Pen & 11 Grm Chgs, 15 loc w/ 45 holes ( 60 total holes to frac ), all shots fired, RD BWWC, HTGSM, Psi test lines, BD Mancos 3rd stage @ 2657 psi, pump 2000 gals 15% HCL acid, 2041 gals, frac 3rd stage w/ 11,400 lbs @ .25, .25 & .50 ppg followed w/ 134,000 lbs @ .50, .75, 1.0 & 1.25 ppg, prop carried in slick wtr, MIR = 50 bpm, AIR = 45 bpm, MTP = 3993 psi, ATP = 3297 psi, ISIP = 2531 psi, 5 min SI = 2302 psi, 10 min = 2234 psi, 15 min = 2180 psi, total fluid to recover = 4686 psi, total FRW-14 = 231 bbls, 214 bbl flush, RD BJ Services, flow well to FB tank on 8/64" choke @ 1800 psi, record FB data.

### 11-01-2008

Recap: Flow well to FB tank on 8/64" choke to 19:00 hrs, swap to 12/64" choke, record FB data, for details see FB report,

### 11-02-2008

Recap: Flow well to FB tank on 12/64" choke to 12:00 hrs, swap to 16/64" choke, record FB data, for details see FB report,

### 11-03-2008

Recap. Flow well to FB tank on 16/64" choke, swap out to 20/64" choke, flow well thru 3 stage test separator & record FB data, for details see FB report.

### 11-04-2008

Recap: Flow well thru 3 stage t4est separator to FB tank on 20/64" choke, travel to location. Great White to snub in tbg, MU Hurricane mill & BS, snub in 28 jts 2-7/8" tbg. & land in tbg. Make sure float valve is not plugged from rust; RD rig floor & ND snubbers, test separator on 32/64" choke.

### 11-05-2008

Recap Flow well to FB tank on 34/64" choke. Travel to location, HTGSM, NUBOP stack, move rig floor down & RU rig floor, TIH w/total of 100 stds tbg & set bit @ 6580", break circ w/12 bph a/s mist @ 650 psi, rets = light mist. SD air & bleed tbg down & float valve is stuck open, pump 40 bbls wtr down tbg, TIH w/9 stds tbg & tag @ 7175", start to break circ & Basic Air's mist pump would not pump any mist, pull up above perfs, tear down pump & could not find anything wrong, call for mechanic on 20/64" choke & record FB data.

### 11-06-2008

Recap. Flow well thru 3 stage test separator on 24/64" choke, TRVL to loc, HTGSM, TIH w/ 7 jts 2 7/8" tbg & tag @ 7175', break circ w/ 12 bph a/s mist & C/O to 5.5" CBP @ 7260', run 2 three bbl sweeps, blow well dry, LD 1 jt tbg & RD P/S, TOOH w/ 5 stds tbg, ; drain up pumps & turn well over to FB crew, flow well thru 3 stage test separator on 20/64" choke, record FB data.

### 11-07-2008

Recap: Flow well thru 3 stage test separator on 20/64" choke. Travel from Farmington to Rosa well site. SU rig & equip. Pressure is on T/W valve in tbg, bleed pressure off thru needle valve, take off TIW & RU 2.5" P/S. PU 7 jts 2-7/8" tbg & tag fill @ 7168'. LD 7 jts tbg & RD 2.5" P/S, turn well over to FB crew. Flow well thru 3 stage test separator on 20/64" choke.

### 11-08-2008

Recap: Flow well thru 3 stage test separator on 20/64" choke & record FB data.

### 11-09-2008

Recap: Flow well thru 3 stage test separator on 20/64" choke & record FB data.

### 11-10-2008

Recap: Flow well thru 3 stage test separator on 20/64" choke, TRVL to loc, HTGSM, extinguish flare & flow to FB tank, TIH w/6 jts tbg & tag @ 7240', break circ w/ rig pump & circ gas out of well bore w/ 4% KCL wtr, C/O fill to 7260', TOOH w/ 4 jts tbg & chain on drum works broke, wait for parts to arrive f/ Farmington, help mechanic replace chain, TOOH w/ 15 stds tbg & change over to 2 lines, finish TOOH w/ remaining tbg, trickle wtr into well bore w/ rig pump while tripping tbg, release FB crew until frac day, drain up pumps & lines, SDFN.

## 11-11-2008

Recap SICP = 430 psi, ND stripper head & NU WL pack off, RU BWWC, HTGSM w/ all contractors on loc, WL set Halliburton 5.5" 8K CBP @ 7040', Load well w/ 37 bbls 4% KCL wtr, Psi test csg & plug @ 5000 psi, perf Mancos 4th stage for DFIT test f/ 6895' to 6935', perf bottom up 3 SPF w/ 3 3/8" SFG, .34" Dia, 21" Pen & 11 Grm Chgs, 5 locations w/ 15 holes, all shots fired, Load well w/ 1 bbl wtr, BD Mancos 4th @ 2698 psi, start DFIT test, 1 bpm = 2463 psi, 2 bpm = 2704 psi, 3 bpm = 2844 psi, 4 bpm = 3006 psi, 5 bpm = 3131 psi & 6 bpm = 3124 psi, hold this rate for 5 min, start step down, 5 bpm = 2889 psi, 4 bpm = 2737 psi, 3 bpm = 2630 psi, 2 bpm = 2480 psi & 1 bpm = 2357 psi, ISIP = 2247 psi, 5 min SI = 1760 psi, 10 min = 1456 psi, 15 min = 1244 psi, 30 min Si = 860 psi, ran DFIT w/ data trap on 2" csg, RD BJ Services & BWWC, drain up pumps & lines & SIW until Friday frac.

### 11-12-2008

Recap: SU rig & equip, RD rig floor, NDBOP stack & NU frac Y, prepare to frac well Friday A.M. (11/14/08).

### <u>11-14-2008</u>

Recap: RU BWWC to perforate. RIH & could not get past approx. 200' from surface due to swollen cable would not go thru pack off head, swap out trucks. Perforate Mancos 4<sup>th</sup> stage bottom up & 120 degree phased from 6845' to 7015', 3 SPF w/3.3/8" SFG, .34" Dia, 21" pen & 11 Grm chgs, 18 total locations w/54 total shots fired. Psi test lines to 6000 psi, BD Mancos 4<sup>th</sup> stage @ 3420 psi, pump 57 bbls 15% HCL acid & 48 bbls Lightning 25 CLG, frac Mancos 4<sup>th</sup> w/9380 lbs. 100 Mesh W/S @ .25, .25 & .50 ppg, followed w/180,040 lbs 40/70 WS @ .50, .75, 1.0 & 1.25 ppg, prop carried in slick water, MIR = 46 bpm, AIR = 43 bpm, MTP = 4043 psi, ATP = 3197 psi, ISIP = 2633 psi, 5 Min SI = 2014 psi, 10 min = 1891 psi, 15 min = 1812 psi, total fluid to recover = 5768 psi. RD BJ Services, WL set 5.5" 8K CBP @ 6775', RD WL service. ND frac Y & frac valve, NUBOP stack, change out stripper head w/one that will handle 1500 psi, rig up rig floor & prepare to run in tbg.

## Page 5 - RU #5C Mancos

## 11-15-2008

Recap: Swap out tong dies, MU 4-3/4" Hurricane mill. TIH w/95 strands tbg & tag @ 6073', work tbg to see if we could break through – 700' higher than CBP, possibly a sand bridge. Tie on to tbg w/Kelly hose & try to circ bridge out & tag bridge, bridge would not break. RU 2.5" P/S, break circ w/rig pump. Drill out something @ 6073', rets = heavy scale & very light fine metal shavings, PU 2 jts & make sure free. RD 2.5" P/S, LD 2 jts tbg, TIH w/8 stds tbg & tag 5.5" 8K CBP @ 6775', LD 1 jt tbg, RU P/S & drill on CBP for approx 15 minutes & notice water level in rig pit rising, swap over to FB Unit, flow well on a 10/64" choke @ 400 psi. LD 2 jts tbg, shut & lock pipe rams, turn well over to FB crew. Flow well to FB tank on 10/64" choke, record FB data.

## 11-16-2008

Recap: Flow well to FB tank on 16/64" choke, record wtr & gas flows, TRVL to loc, HTGSM, hook up hardlines f/ pump & air equip, try to TIH but string float is stuck open, flush tbg w/ 20 bbls 4% KCL wtr, TIH w/ 2 jts tbg & tag CBP @ 6775', break circ w/ air only @ 1700 psi w/ 32/64" choke @ FB unit, SU 10 bph a/s mist & D/O CBP, it fills like something is on top of plug, took 1 hr & 15 min to D/O bottom slips, TIH & push remaining plug to 7031', Rd 2.5" P/S & pull mill to 6775', shut & lock rams, drain up pumps & lines, flow well to FB tank on 12/64" choke, record FB data.

### 11-17-2008

Recap: Flow well to FB tank on 16/64" choke until 12:00, swap to 24/64" choke, record FB data.

### 11-18-2008

Recap. Flow well to FB tank on 24/64" choke & record FB data.

### 11-19-2008

Recap: Flow well to FB tank on 24/64" choke & record FB data, swap well over to flow thru 3 stage test separator @ 9:00.

### 11-20-2008

Recap: Flow well thru 3 stage test separator on 32/64" choke, record FB data.

### 11-21-2008

Recap: Flow well thru 3 stage test separator to FB tank. RU pump, pit & all hardline. W/O Triple S to transfer 4% KCL from frac tank to rig pit. Circ gas out of well & kill well w/4% KCL water. TIH @ tag @ 7025'. TOOH w/Hurricane mill. B/O old mill & MU new Hurricane mill. TIH w/104 stds tbg & set bit @ 6845'. Drain pumps & lines, blow air thru FB unit w/air package.

### 11-22-2008

Recap: Blow down well to BG bank, hook up pump, pit & hardline. TIH w/4 stds tbg & tag @ 7025', load tbg w/4% KCL wtr & break circ w/rig pump. D/O 15' of fill & start drilling remainder of 1st plug & D/O 2nd plug @ 7040'. Work tbg, circ bottoms up. TIH w/2 jts tbg & tag hard @ 7090', break circ & drill up plug & C/O 170' of sand to 7260' – rets = comp material, rubber & heavy sand. Circ bott0ms up, rets = rubber & light metal shavings. TIH w/9 jts tbg, push CBP down & tag fill @ 7585'. Break circ w/rig pump. D/O remaining plug from 7260' & D/O 5 5" CBP @ 7600'. PU 3 jts tbg & tag 5.5" CBP @ 7690'. Break circ w/rig pump.

## 11-23-2008

Recap: SU rig & equip, SICP = 800 psi, Blow well down to rig pit, hook up pump, pit & hardlines, TIH w/ 1 jt 2 7/8" tbg & CBP hung up on top perf of Greenhorn @ 7715', break circ w/ rig pump, Mill on trash f/ other plugs & final plug, PU 4 jts & push plugs to 7840', RD 2.5" P/S, LD 27 jts tbg & TOOH w/ bit, MU 1/2 M/S, one 2.28" F-Nipple w/ aluminum pump out plug, 226 jts 2.875", 6 5 #, J-55, EUE tbg, w/ 83 stds in well, well started unloading out the csg, Land well @ 7445' KB, 226 total jts, S/N @ EOT, RD rig floor, NDBOP stack & NUWH & test @ 2500 psi, tested good, Pump 20 bbls 4% KCL down tbg & follow w/ air, pump out plug @ 1400 psi, well head is so high that we are using the rigs winch to NU FB line to WH, Drain up pumps & lines, open well to 3 stage test separator on 24/64" choke @ 700 psi, flow well thru separator & record FB data, for details see FB report.

### 11-24-2008

Recap: Flow well thru 3 stage test separator on a 24/64" choke, record FB data, TRVL f/ Farmington to Rosa well site, hold tailgate safety mtg, SU rig & equip, keep flowing well thru separator, RD rig, pumps, pit & all hardline, RD Basic's air package, police location & W/O Dawn Trucking to move equip back to yard, SI well & RU H & H WL & Pro Technics, calibrate survey tool & run Spectra scan survey over perfs, move rig & equip back to town, Nipple FB line to WH & flow well thru 3-stage test separator on 24/64" choke, record FB data.

## 11-29-2008

Recap. FLOW TEST: Tbg Press: 810 psi, Csg Press: n/a, Duration: 6 hr, Choke Size: 16/64", Method: Orfice, Flow: 844 mcf/day

Mancos only will be produced during winter closure. Mesa Verde will be completed next year.