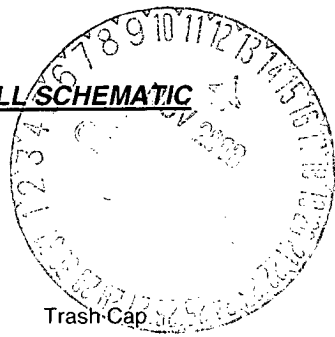


ConocoPhillips

END OF WELL SCHEMATIC



Well Name: SAN JUAN 31-6 # 229A
 API #: 30-039-27400
 Location: 1240' FNL & 1485' FWL
Sect 28 - T31N - R6W
Rio Arriba County, NM
 Elevation: 6458'
 Drl Rig RKB: 13' above Ground Level
 Datum: Drl Rig RKB = 13' above GL

Spud Date: 7-Sep-2003
 Rig Release Date: 12-Sep-2003

Surface Casing Date set: 8-Sep-2003
☒ New
☐ Used
 Size 9 5/8 in
 Set at 221 ft # Jnts: 7
 Wt. 32.3 ppf Grade H-40
 Hole Size 12.25 in Conn STC
 Excess Cmt 125 %
 Est. T.O.C. SURFACE Csg Shoe 221 ft
 TD of surface 231 ft

Notified BLM @ 18:00 hrs on 6-Sep-2003
 Notified NMOCD @ 18:00 hrs on 6-Sep-2003

Production Casing Date set: 12-Sep-2003
☒ New
☐ Used
 Size 5 1/2 in Grade J-55
 Wt. 17 ppf Conn LTC from 13 to 3625 ft
 Hole Size 7 7/8 in # Jnts: 82
 Wash Out: 150 % # Pups 1
 Top of Lead Slurry Cement: Surface
 Calculated Top of Tail Slurry Cement: 2958 ft

Notified BLM @ 20:34 hrs on 10-Sep-2003
 Notified NMOCD @ 20:36 hrs on 10-Sep-2003

Pup Jt # 1 Length 4.7 ft Top @ 2958'

FC 3579 ft

Csg Shoe 3625 ft

TD 3,630 ft
 Mud Wt. @ TD 9.4 ppg

Surface Cement
 Date cmt'd: 8-Sep-2003
 Lead: 150 sx Class G + 2% CaCl2
+0.25lb/sx cell-o-flake, 1.16 cf/sx yield
174 cuft slurry at 15.8 ppg
 Displacement vol. & fluid.: 15.0 bbls fresh wtr
 Bumped Plug at: 08:50hrs w/ 300psi
 Final Circ Press: 55 psi @ 0.5 bpm
 Returns during job: YES
 CMT Returns to surface: 15.0
 Floats Held: No floats used
 W.O.C. for 8 hrs (plug bump to test csg)

Production Cement
 Date cmt'd: 12-Sep-2003
 Lead: 480 sx Class G cement
+ 3% D079 Extender
+ 0.25 lb/sx D029 cellophane flakes
+ 5 lb/sx Pheno Seal
+ 0.2% D046 Antifoam
+ 0.05 gps D047 Antifoam
2.61 cf/sx, 1252.8 cuft slurry at 11.7 ppg
 Tail: 230 sx 50:50 POZ / Class G cement
+ 2% D020 Bentonite
+ 2% S001 CaCl2
+ 5 lb/sx Gilonite
+ 2.5 lb/sx Pheno Seal
+ 0.25 lb/sx Cellophane Flakes
+ 0.10% D046 Antifoam
1.27 cf/sx, 292.1 cuft slurry at 13.5 ppg
 Dspl: See comments
 Bumped Plug at: 05:05 hrs w/ 1800 psi
 Final Circ Pressure: 800 psi @ 2 bpm
 Returns during job: YES
 CMT Returns to surface: 33 bbls
 Floats Held: X Yes No

COMMENTS:

Surface: No float equipment was run. Ran a guide shoe and an aluminum baffle plate 1 jt above the guide shoe.
Displaced top wiper plug with water. Shut in casing head with 160 psi and WOC before backing out landing jt.
 Production: Displaced with 80 bbls 2% KCL and 3 BBLs Fresh Water

CENTRALIZERS:

Surface:	<u>CENTRALZERS POSITIONED @ 211', 162', 133', & 74'.</u>	Total:	<u>4</u>
Production:	<u>CENTRALIZERS @ 3615', 3535', 3447', 3359', 3271', 3183', 219', 85' & 41'</u>	Total:	<u>9</u>
	<u>TURBOLIZERS @ 2561', 2517', 2473', & 2429'</u>	Total:	<u>4</u>

Operations Summary Report

Legal Well Name: SAN JUAN 31-6 UNIT FRUITLA 000229A
 Common Well Name: SAN JUAN 31-6 FRUITLAND #229A UNIT
 Event Name: Original Completion
 Contractor Name:
 Rig Name:

Start: 07/28/2003
 Rig Release:
 Rig Number:
 Spud Date: 09/07/2003
 End:
 Group:

Date	From - To	Hours	Code	Subco	Phase	Description of Operations
09/15/2003	08:00 - 12:00	4.00	LG	z	80CMPL	Held safety meeting. RU Blue jet. Ran GSL log from 3578' to surface. SWI. RD Blue jet.
09/16/2003	08:00 - 10:00	2.00	CM	9	80CMPL	Held safety meeting. RU woodgroup. Installed csg valves & tbq hanger. Tested 5 1/2" csg to 4800 #. Held ok. SWI. RD woodgroup
09/19/2003	07:00 - 07:30	0.50				Safety meeting
	07:30 - 09:00	1.50				RU Blue jet. Perforated the lower Fruitland Coal. RIH w/ 3 1/8" 120 degree select fire perforating gun. Perforated from 3429' - 3433' w/ 4 spf, 3437' - 3440' w/ 4 spf. A total of 28 holes.
	09:00 - 12:00	3.00				Frac the lower Fruitland Coal. Tested lines to 5028#. Set pop off @ 4530 #. Brok down formation @ 6 BPM @ 2198. Pumped pre pad w/ 10 # Polymer @ 32 BPM @ 4007 #. SDRT 25 BPM @ 3641 #. SDRT 15 BPM @ 2831 #. SDRT 10 BPM @ 2438. ISIP 1480 #. 5 min 925 #. 10 min 904 #. Pump 1000 gal 10% Formic acid @ 7 BPM @ 2608 #. Pump 25 # Delta in pad @ 20 BPM @ 2732 # w/625 # 40/70 Arizona sand @ 25 # per gal. Frac the lower Fruitland Coal w/ 20 # Delta frac 140 w/ WC SW. 40,000 # 16/40 Brady sand & 755 bbls fluid. Avg rate 20 BPM. Avg pressure 1910 #. Max pressure 2732 #. Max sand cons 5 # per gal. ISIP 1158 #. Frac gradient .87.
	12:00 - 14:00	2.00				RIH w/ 5 1/2" composite plug. Set plug @ 3340'. Tested plug to 4800 #. Held ok. Perforated the Upper Fruitland Coal. RIH w/ 3 1/8" 120 degree select fire perforating gun. perforated from 3108' - 3111' w/ 1 spf, 3152' - 3154' w/ 1 spf, 3162' - 3164' w/ 1 spf, 3224' - 3227' w/ 1 spf, 3265' - 3270' w/ 1 spf, 3282' - 3287' w/ 1 spf, 3314' - 3317' w/ 1 spf. A total of 30 holes.
	14:00 - 18:00	4.00				Frac the upper Fruitland Coal. Tested lines to 5044 #. Set pop off @ 4530 #. Brok down formation @ 5 BPM @ 718 #. Dropped 28 ball sealers in 1200 gals of 10% formic acid @ 1 ball per bbl @ 11 BPM @ 1042 #. Good ball action. Balled off @ 3116 #. RIH w/ Junk basket. Retrieved 28 balls. RD Blue Jet. Pumped 25 # Delta in Pad w/ 3500 # of 40 / 70 Arizona sand. Frac the Fruitland Coal w/ 60 Q 20 # Delta frac 140 w/ WC SW. 190,000 16/30 Brady sand & 1244 bbls fluid. 1,802,000 scf N2. Avg rate 45 BPM. Avg pressure 2777 #. Max pressure 3012 #. Max sand cons 4 # per gal. ISIP 2355 #. Frac gradient 1.0. Ram three Isotope. SWI. RD Halliburton.
09/24/2003	07:00 - 07:30	0.50	CM	c	80CMPL	TAILGATE SFTY MTG, JSA- RIGGING UP UNIT, SPOTTING EQUIPMENT, TESTING BOPS, PU TBG
	07:30 - 08:00	0.50	CM		80CMPL	BLOW WELL DOWN TO RES PIT
	08:00 - 09:00	1.00	CM	e	80CMPL	KILL WELL, ND FRAC TREE
	09:00 - 09:30	0.50	CM	f	80CMPL	INSTALL TBG HANGER W/ BPV., SCREW IN LOCK DOWN PINS
	09:30 - 11:30	2.00	CM	6	80CMPL	SPOT RIG EQUIPMENT AND RIG UP
	11:30 - 12:30	1.00	CM	e	80CMPL	NU BOP'S
	12:30 - 14:30	2.00	CM	8	80CMPL	PERFORM BOP TEST, BLIND RAMS LOW PSI FOR 10 MIN @ 200 PSI, HIGH PSI FOR 10 MIN @ 3000., INSTALL 1 JT OF 2 7/8" TBG, REPEAT TEST PROCEDURE FOR PIPE RAMS. ALL HELD GOOD..
						RU BLOOE LINES AND 2" CHOKE FLOWBACK LINES TO PIT AND SECURE WITH CMT BLOCKS.
	14:30 - 15:30	1.00	CM	z	80CMPL	PUMP 2% KCL FLUID
	15:30 - 17:30	2.00	CM	4	80CMPL	PU 4 3/4" CONE BIT, 2 7/8" REG BIT SUB W/ FLOAT, AND TIH WHILE TALLYING 80 JTS OF 2 7/8" 6.5# J-55 EUE 8RD TBG OFF OF FLOAT.
09/25/2003	17:30 - 18:00	0.50	WO	p	80CMPL	SECURE WELL, SION
	06:30 - 08:30	2.00	WO	c	80CMPL	MONTHLY CONTRACTOR SAFETY MEETING
	08:30 - 10:30	2.00			80CMPL	ROAD CREW TO LOCATION
	10:30 - 11:00	0.50	CM	c	80CMPL	TAILGATE SFTY MTG, JSA- TIH W/ TBG, PUMPING W/ AIR, TRAPPED PSI SICIP = 700 PSI

Operations Summary Report

Legal Well Name: SAN JUAN 31-6 UNIT FRUITLA 000229A

Common Well Name: SAN JUAN 31-6 FRUITLAND #229A UNIT

Spud Date: 09/07/2003

Event Name: Original Completion

Start: 07/28/2003

End:

Contractor Name:

Rig Release:

Group:

Rig Name:

Rig Number:

Date	From - To	Hours	Code	Subco	Phase	Description of Operations
09/25/2003	10:00 - 11:30	1.50	CM		80CMPL	BLOW WELL DOWN TO RES PIT
	11:30 - 12:00	0.50	CM	e	80CMPL	KILL WELL W/ 2% KCL
	12:00 - 13:00	1.00	CM	4	80CMPL	FINISH TIH W/ 2 7/8" 6.5# J-55 EUE 8RD TBG (107 JTS.) TAG FILL AT 3320'
	13:00 - 13:45	0.75	WO	u	80CMPL	WAIT ON AIR PACKAGE TO BE DELIVERED FROM SJ 31-5 # 57 LOCATION
	13:45 - 14:30	0.75	CM	6	80CMPL	RU AIR PACKAGE, PSI TEST LINES
	14:30 - 16:00	1.50	CM	z	80CMPL	BREAK CIRC W/900 CFM AIR AT 400 PSI W/ 10 BPH MIST/FM, C/O FROM 3320'-3340'. CIRC TO CLEAN UP. WELL MAKING TRACES OF SAND AND H2O. SAND HAS CEASED.
	16:00 - 17:00	1.00	CM	z	80CMPL	CUT MIST AND FOAM. PUMP DRY AIR TO ESTABLISH A H2O TEST. RESULTS ARE 30-40 BPH OF FRAC FOAM AND FRAC FLUID.
	17:00 - 17:15	0.25	CM	f	80CMPL	SD AIR UNIT, BLEED PSI OFF. PUMP 8 BBLS TO KILL TBG
	17:15 - 18:00	0.75	CM	4	80CMPL	TOOH W/ TBG TO 3000'
	18:00 -				80CMPL	SECURE WELL SION
09/26/2003	07:00 - 07:30	0.50	CM	c	80CMPL	TAILGATE SFTY MTG, JSA- TIH W/ TBG, PUMPING W/ AIR, TRAPPED PSI SICP = 700 PSI
	07:30 - 08:30	1.00	CM		80CMPL	BLOW WELL DOWN TO RES PIT
	08:30 - 09:00	0.50	CM	4	80CMPL	TIH TO TAG FILL ON TOP OF BP AT 3340'. 10' FILL ON TOP OF PLUG
	09:00 - 09:15	0.25	CM	z	80CMPL	RU PWR SWIVEL
	09:15 - 09:45	0.50	CM	4	80CMPL	DRILL OUT AND C/O COMP BP W/ 900 CFM AIR, 14 BPH MIST, 500 PSI
	09:45 - 10:00	0.25	CM	6	80CMPL	BLEED AIR OFF, RD SWIVEL
	10:00 - 10:30	0.50	CM	z	80CMPL	TIH W/ 2 7/8 WORK STRING TO TAG FILL. TAGGED UP AT 3460'. RU SWIVEL
	10:30 - 14:00	3.50	CM	z	80CMPL	BREAK CIRC W/ AIR @ 900 CFM, 14 BPH MIST/FM, 500 PSI, C/O SAND FROM 3460 TO 3579' (PBT D). CIRC TRACES OF SAND AND @ 50 BBL/HR FRAC FLUIDS
	14:00 - 17:00	3.00	CM	f	80CMPL	SAND HAS CEASED, CUT MIST AND FOAM ON AIR, CIRC W/ DRY AIR. WELL MAKING ABOUT 50 BB/HR FRAC FLUID AND FOAMER.
	17:00 - 17:15	0.25	CM	4	80CMPL	SD AIR PKG. BLEED PSI OFF
09/27/2003	17:15 - 18:00	0.75	CM	4	80CMPL	TOOH W/ TBG TO 3000'
	18:00 - 18:30	0.50	WO	p	80CMPL	SECURE WELL, SION
	07:00 - 07:30	0.50	CM	c	80CMPL	TAILGATE SFTY MTG, JSA- TIH W/ TBG, PUMPING W/ AIR, TRAPPED PSI SICP = 750 PSI.
	07:30 - 08:30	1.00	CM		80CMPL	BLOW WELL DOWN TO RES PIT
	08:30 - 09:00	0.50	CM	4	80CMPL	TIH TO TAG FILL, TAGGED AT 3570' (9' SAND)
	09:00 - 11:30	2.50	CM	z	80CMPL	BREAK CIRC W/ AIR @ 900 CFM, 14 BPH MIST/FM, 350 PSI, C/O SAND FROM 3470 TO 3579' (PBT D). CIRC HOLE CLEAN. PERFS MAKING ABOUT @ 40 BBL/HR FRAC FLUIDS ...
	11:30 - 12:30	1.00	CM	f	80CMPL	SAND HAS CEASED, CUT MIST AND FOAM ON AIR, CIRC W/ DRY AIR., PERFS MAKING ABOUT 30 BBL/HR H2O. FLUID TURNING TO FORMATION H2O MORE THAN FRAC FLUID.
	12:30 - 13:30	1.00	CM	f	80CMPL	CIRC W/ DRY AIR., PERFS MAKING ABOUT 15 BBL/HR H2O. FLUID MOSTLY FORMATION H2O
	13:30 - 14:30	1.00			80CMPL	CIRC W/ DRY AIR., PERFS MAKING ABOUT 12 BBL/HR H2O. FLUID MOSTLY FORM H2O
	14:30 - 15:30	1.00			80CMPL	CIRC W/ DRY AIR., PERFS MAKING ABOUT 12 BBL/HR H2O. FLUID MOSTLY FORM. H2O.
	15:30 - 16:30	1.00			80CMPL	CIRC W/ DRY AIR., PERFS MAKING ABOUT 12 BBL/HR H2O. FLUID MOSTLY FORM. H2O
	16:30 - 17:00	0.50	CM	4	80CMPL	SD AIR PKG. BLEED PSI OFF

Operations Summary Report

Legal Well Name: SAN JUAN 31-6 UNIT FRUITLA 000229A

Common Well Name: SAN JUAN 31-6 FRUITLAND #229A UNIT

Spud Date: 09/07/2003

Event Name: Original Completion

Start: 07/28/2003

End:

Contractor Name:

Rig Release:

Group:

Rig Name:

Rig Number:

Date	From - To	Hours	Code	Subco	Phase	Description of Operations
09/27/2003	17:00 - 17:45	0.75	CM	4	80CMPL	TOOH W/ TBG TO 3000'
	17:45 - 18:00	0.25	WO	p	80CMPL	SECURE WELL, SION
09/30/2003	07:00 - 07:30	0.50	CM	c	80CMPL	HELD SAFETY MEETING W/ CREW. SICP 750#.
	07:30 - 08:30	1.00	CM	1	80CMPL	TIH W/ 27/8" TBG. TAG @ 3580' NO FILL. UNLOADED APPROX. 16 BBLS WTR TO PIT.
	08:30 - 09:45	1.25	CM	1	80CMPL	PUH TO 3000' INSTALL 1/2" CHOKE. IN BLOW DOWN LINE.
	09:45 - 10:00	0.25	CM	u	80CMPL	FCP = 75# WELL UNLOADING WTR.
						TP 0#
	10:00 - 10:30	0.50	CM	u	80CMPL	FCP = 70# WET
						TP 0#
	10:30 - 11:00	0.50	CM	u	80CMPL	FCP = 85# WET
						TP 0#
	11:00 - 11:30	0.50	CM	u	80CMPL	FCP = 110# WET
						TP 0#
	11:30 - 12:00	0.50	CM	u	80CMPL	FCP = 160# WET
						TP 0#
	12:00 - 12:30	0.50	CM	u	80CMPL	FCP = 160# WET
						TP 0#
	12:30 - 13:00	0.50	CM	u	80CMPL	FCP = 160# WET
						TP 0#
						TEST RESULTS AS FOLLOWS: 900 MCF/D GAS, 200 BW/D AND NO OIL
	13:00 - 14:30	1.50	CM	4	80CMPL	TOOH W/ 96 JTS 2 7/8" TBG.
	14:30 - 16:00	1.50	CM	4	80CMPL	PU AND RIH W/ HF PURGE VALVE, 1 JT 2 7/8" TBG, 6' PERFORATED SUB, 2.25' F-NIPPLE. AND 113 JTS 2 7/8" TBG. LAND TBG. F-NIPPLE @ 3496' EOT @ 3535'
	16:00 - 16:45	0.75	CM	e	80CMPL	ND BOP'S NU PUMPING TEE.
	16:45 - 17:00	0.25	CM	1	80CMPL	SWI SDFN
10/01/2003	07:00 - 07:30	0.50	CM	c	80CMPL	HELD SAFETY MEETING W/ CREW. SICP 750#
	07:30 - 09:00	1.50	CM	f	80CMPL	PUMP 13 BBLS WTR. RU EXPERT DOWN HOLE SLICK LINE. RET. PLUG SET IN F - NIPPLE.
	09:00 - 11:00	2.00	CM	2	80CMPL	PU AND RIH W/ 2 1/2" X 1 1/4" X 8' RHAC INSERT PUMP W/ 1' STRIANER. MAX STROKE 83". PUMP # CP 033, 4' X 3/4" PONY ROD. 139 3/4" SUCKER ROD 1 - 8' X 3/4" PONY ROD, 1 - 6' X 3/4" PONY ROD, AND 22' SPRAYED METAL POLISH ROD. SEATED AND SPACED OUT PUMP. LOADED HOLE AND PSI TEST TBG TO 500#.
						HELD OK. BLED OFF PSI. LONG STROKE PUMP. PSI UP TO 500# IN 12 STROKES. HELD OK. BLED DOWN PSI.
	11:00 - 13:00	2.00	CM	z	80CMPL	RDMO