

**GEOLOGIC & DRILLING PROGNOSIS**

Prepared: 19-May-15  
Updated: 8/6/2015 RGF  
Changed BHL Xys and Footage Calls

**WELL NAME:** RU 434-6  
Directional from the pad RU 34-6

**STATE:** CO  
**COUNTY:** GARFIELD  
**BOTTOM HOLE LOCATION:** Sec. 6 T 7S R 93W 10 acre Fed  
**TYPE OF UNIT:** Not Spaced  
**SURFACE HOLE FOOTAGE:** 987 FSL 1916 FEL Sec. 6 T 7S R 93W  
**BOTTOM HOLE FOOTAGE:** 1114 FSL 2578 FWL Sec. 6 T 7S R 93W  
**SURFACE HOLE XY:** X: 2346575.0 Y: 1603584.4  
**BOTTOM HOLE XY:** X: 2345716.2 Y: 1603352.9  
**FEDERAL EA:** NA  
**HARDLINE:** No

**ELEVATION (ft):** PAD: 7537  
KELLY BUSHING: 7558

**RIG INFORMATION:**  
RIG NAME: H&P 318  
KB HEIGHT (ft): 24

**ESTIMATE TOPS:**

Formation	TVD	MD	Comments
Wasatch	Surface	Surface	
Top of "G" Sand	3543	3606	
Base of "G" Sand	3643	3676	
Mesaverde	6003	6059	(Water zones may be encountered within the upper portion of the Mesaverde)
Approx. Top Gas	7000	7057	
Cameo Coals	8758	8815	
Coal D	9469	9526	
Rollins SS	9600	9657	Drill 150' below Top Rollins to reach TD.
TD	9750	9807	

**MUD LOGGING (md):** Out of surface casing to TD. (One man or computer unit with at least total gas and drill rate.)

**LOGGING PROGRAM:** Cased-hole logs

Type of Log: Cased-hole Pulsed Neutron log (e.g. RMTE, RPM, or RST)  
Interval (md): GR from TD to Surface Casing  
Pulsed Neutron from TD to Surface Casing

Strap drill pipe by latest trip prior to TD

**CSG & CEMENT PROGRAM: SHOE TEST REQUIRED**

	csg size (in)	depth set at (tvd)	depth set at (md)	hole size (in)	Approximate Cmt (ft3) Tail	Tail Yield ft <sup>3</sup> /Sx	Approx. Sx Tail	Approximate Lead Yield Cmt (ft3) Lear	Lead Yield ft <sup>3</sup> /Sx	Approx. SxLead	WOC (hrs)
Conductor:											
Surface:	9 5/8"	1100	1103	13 1/2"	352	2.11	167	295	2.37	124	8
Intermediate:											
Liner or Production:	4 1/2"	9750	9807	8 3/4"	1030	1.33	775	337	1.81	186	
					<b>Surface (sacks): 291</b>		<b>Prod (sacks): 961</b>				

Surface cement volumes are calculated w/ 20% excess in gauge hole,  
Production cement: tail is calculated to be 300 ft above geologists pick of top of gas, lead TOC is calculated 300 ft above top of MVRD. 10% Excess added.

**ANTICIPATED PRESSURES**

MASP	Prod Csg Test Pressure	BHP	Pressure (psi)	Prod. Csg. Grade
2,150	7,000	6,825		P-110

**MUD PROGRAM:** (Do not deviate from mud engineer's recommendation without prior consent from Parachute office)

FROM (md)	TO (md)	TYPE MUD	#/GAL	VIS	WL	CHEMICALS
0	1103	Spud	9.0-9.5	45-50		
1103	9807	LSND	9.0-13.5	40-50	8-10	Visease & 507

(Write mud added to system on tour sheets and report all mud mixed and daily cost in morning report)

**LOST CIRCULATION:** Report depth and bbls of mud lost on morning report and tour sheet - Any severe lost circulation problems should be reported immediately to well supervisor.

**SURVEYS:** Run every 100' on surface hole and trips unless otherwise instructed.

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**WPX Energy Geologists:** (note: if there are questions concerning TD or logging, please call Geologist)

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