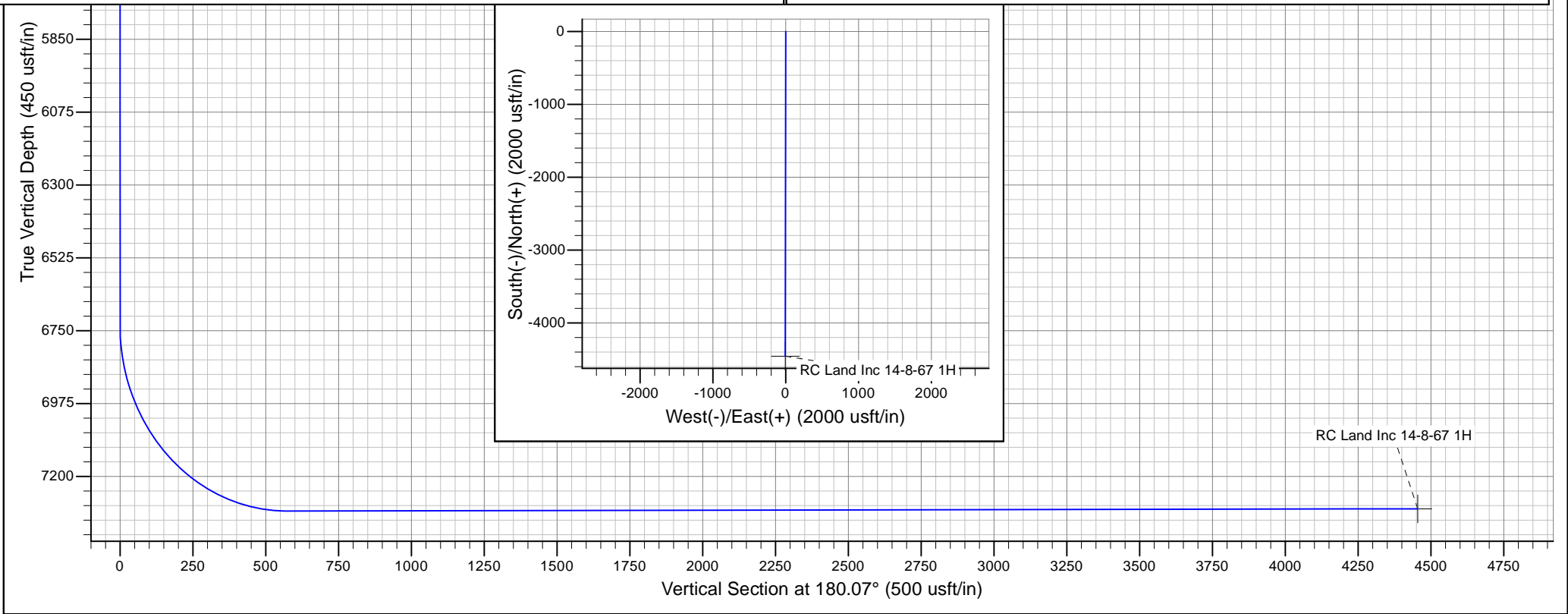


Project: Weld - DJ Basin
Site: RC Land Inc 14-8-67 1H
Well: RC Land Inc 14-8-67 1H
Wellbore: RC Land Inc 14-8-67 1H
Design: RC Land Inc 14-8-67 1H

PROJECT DETAILS: Weld - DJ Basin

Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: Colorado North 501

System Datum: Mean Sea Level



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	6733.8	0.00	0.00	6733.8	0.0	0.0	0.00	0.00	0.0	
3	7634.8	90.10	180.07	7306.8	-574.0	-0.7	10.00	180.07	574.0	
4	11515.8	90.10	180.07	7300.0	-4454.9	-5.1	0.00	0.00	4454.9	RC Land Inc 14-8-67 1H

Chesapeake Energy - Rockies District

Weld - DJ Basin

RC Land Inc 14-8-67 1H

RC Land Inc 14-8-67 1H

RC Land Inc 14-8-67 1H

Plan: RC Land Inc 14-8-67 1H

Standard Planning Report

01 December, 2011

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Well RC Land Inc 14-8-67 1H
Company:	Chesapeake Energy - Rockies District	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Project:	Weld - DJ Basin	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	RC Land Inc 14-8-67 1H	North Reference:	Grid
Well:	RC Land Inc 14-8-67 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	RC Land Inc 14-8-67 1H		
Design:	RC Land Inc 14-8-67 1H		

Project	Weld - DJ Basin		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	Colorado North 501		

Site		RC Land Inc 14-8-67 1H			
Site Position:		Northing:	486,942.92 ft	Latitude:	40° 40' 5.85144019 N
From:	Map	Easting:	2,178,692.07 ft	Longitude:	104° 51' 21.16281723 W
Position Uncertainty:	0.0 usft	Slot Radius:	13.200 in	Grid Convergence:	0.42 °

Well	RC Land Inc 14-8-67 1H					
Well Position	+N/-S	0.0 usft	Northing:	486,942.92 ft	Latitude:	40° 40' 5.85144019 N
	+E/-W	0.0 usft	Easting:	2,178,692.07 ft	Longitude:	104° 51' 21.16281723 W
Position Uncertainty		0.0 usft	Wellhead Elevation:		Ground Level:	0.0 usft

Wellbore	RC Land Inc 14-8-67 1H				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/1/2011	8.83	67.24	53,276

Design	RC Land Inc 14-8-67 1H			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	180.07

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
6,733.8	0.00	0.00	6,733.8	0.0	0.0	0.00	0.00	0.00	0.00	
7,634.8	90.10	180.07	7,306.8	-574.0	-0.7	10.00	10.00	0.00	180.07	
11,515.8	90.10	180.07	7,300.0	-4,454.9	-5.1	0.00	0.00	0.00	0.00	RC Land Inc 14-8-67

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
6,733.8	0.00	0.00	6,733.8	0.0	0.0	0.0	0.00	0.00	0.00	
7,634.8	90.10	180.07	7,306.8	-574.0	-0.7	574.0	10.00	10.00	0.00	
11,515.8	90.10	180.07	7,300.0	-4,454.9	-5.1	4,454.9	0.00	0.00	0.00	

Chesapeake Operating

Planning Report

Database:	Drilling Database	Local Co-ordinate Reference:	Well RC Land Inc 14-8-67 1H
Company:	Chesapeake Energy - Rockies District	TVD Reference:	WELL @ 0.0usft (Original Well Elev)
Project:	Weld - DJ Basin	MD Reference:	WELL @ 0.0usft (Original Well Elev)
Site:	RC Land Inc 14-8-67 1H	North Reference:	Grid
Well:	RC Land Inc 14-8-67 1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	RC Land Inc 14-8-67 1H		
Design:	RC Land Inc 14-8-67 1H		

Design Targets									
Target Name									
- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(ft)	(ft)		
RC Land Inc 14-8-67 1H	0.00	0.00	7,300.0	-4,454.9	-5.1	482,488.00	2,178,687.00	0° 39' 21.83157508 N	4° 51' 21.64844793 W
- plan hits target center									
- Point									

Well: RC Land Inc 14-8-67 1H
Zone of Interest: Niobrara Shale

1.0) Summary of Operations

Drill 12-1/4" surface hole to section TD at 1250'.

Set 9-5/8" 40# J-55 casing and cement with Lead and Tail cement (see details below). Cement will be circulated to surface.

Install 11" x 5,000 psi BOP and test as required

Drill 8-3/4" hole to KOP.

Kick off and drill 8-3/4" curve at 10 deg/100' to end of build.

Drill 7-7/8" open hole to well TD

Set 4-1/2" x 5-1/2" casing and cement as shown below.

Suspend well and move drilling rig out in preparation for well completion

2.0 CASING AND CEMENTING PROGRAM

The proposed casing program will be as follows:

<u>Purpose</u>	<u>Interval</u>		<u>Hole Size</u>	<u>Casing Size</u>	<u>Weight</u>	<u>Grade</u>	<u>Thread</u>	<u>Condition</u>
	<u>From</u>	<u>To</u>	<u>(")</u>	<u>(")</u>	<u>Lbs/Ft</u>			
Surface	0	1250	12 1/4	9 5/8	40	J-55	LTC	New
Production	0	6734	8 3/4	5 1/2	17	P-110	LTC	New
	6734	11516	8 3/4	4 1/2	11.6	P-110	LTC	New

Casing design subject to revision based on geologic conditions encountered.

Casing Safety Factors:

Interval	Casing	Burst	Collapse	Axial
Surface	9 5/8	2.03	2.03	4.78
Production	4 1/2	1.32	2.26	1.63

Centralizer Program

Casing	9 5/8		4 1/2
# of Bow-type spring centralizer	10		32

Cement Program

Surface Casing	Slurry Volume			Weight	Yield	Mix H2O	TOC
	% Excess	(BBLS)	(Sacks)	(PPG)	(cuft/sk)	(GPS)	
Lead Slurry	100%	105	199	11.50	2.95	17.88	0
Tail Slurry	100%	40	197	15.80	1.15	4.96	938

	Lead	Tail
Surface Casing with TOC at surface	Rockies LT 0.2 % Versaset (Additive Material) 0.2 % D-AIR 3000 (Additive Material) 0.125 lbm/sk Poly-E-Flake (Additive Material) 0.25 lbm/sk Kwik Seal (Additive Material)	Premium Cement, 94 lbm/sk Premium Cement (Cement) 1 % Calcium Chloride, Pellet (Accelerator) 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)

Cement must be circulated to surface

Production Casing Cement	Slurry Volume			Weight	Yield	Mix H2O	TOC
	% Excess	(BBLS)	(Sacks)	(PPG)	(cuft/sk)	(GPS)	
Lead Slurry	30%	214	546	12.00	2.20	12.30	2574'
Tail Slurry	30%	299	1151	14.60	1.46	6.10	

	Lead	Tail
Production Casing Cement	Poz Type I-II 50/50 1 % Bentonite (Light Weight Additive) 3 lbm/sk Silicalite Compacted (Additive Material) 3 % Microbond HT (Additive Material) 0.2 % Halad(R)-322 (Low Fluid Loss Control) 0.4 % Halad(R)-344 (Low Fluid Loss Control) 0.3 % HR-5 (Retarder)	50/50 Poz Premium 2 % Bentonite (Light Weight Additive) 5 lbm/sk Silicalite Compacted (Light Weight Additive) 0.5 % Versaset (Thixotropic Additive) 0.5 % Econolite (Cement Material) 0.6 % HR-7 (Retarder) 0.5 % D-AIR 3000 (Defoamer) 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive) 0.25 lbm/sk Kwik Seal (Lost Circulation Additive)

The cement must achieve a compressive strength of at least 500 psi at the shoe prior to casing test and drilling out the shoe track. WOC time shall be recorded in the driller's log.

MUD PROGRAM

<u>Purpose</u>	<u>Interval</u>		<u>Hole Size</u>	<u>Mud Type</u>	<u>Mud Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>	<u>pH</u>
	<u>From</u>	<u>To</u>	(")	(")	<u>Lbs/Ft</u>			
Surface	0'	1250'	12 1/4	WBM	8.4 – 8.8	28 – 32	N/C	9
Production	1250'	7635'	8 3/4	WBM	8.5 – 9.5	35 – 46	4 – 6	9
	7635'	11516'	7 7/8	WBM	9.0 - 10.0	36 – 46	4 – 6	9

WBM = Water Based Mud