



OXY USA Inc.
9-POINT DRILLING PLAN

Well Information

My Way Ranch Federal A 5-15C
 Section 8, Township 10S, Range 94W
 Mesa County, Colorado

1. Geologic Markers and Formations

Names and estimated tops of all geologic groups, formations, members or zones are shown in the table below. Also indicated are probable gas-bearing horizons. The only anticipated water-bearing zones are in the Upper Wasatch. Standard drilling practice is to case off these zones to protect any useable water resources.

Geologic Prognosis

Prognosed Formation Tops		Ungraded GL: 6869 ft		KB: 18 ft TVDSS (ft)	Gas	
Tops		MD (ft) Reference KB	TVD (ft) Reference KB			
Wasatch	Wasatch 'G' Sand					
	Fort Union					
	Williams Fork		3395	2700	4169	
Mesaverde	Williams Fork	Ohio Creek	3610	2874	3995	
		Lower Williams Fork	5900	4906.5	1962.5	●
	Ites	Rollins	6525	5584	1285	●
		T Corcoran	7065	6117	752	
T D	<i>TD based upon structural control at top of T Corcoran in this area</i>		7351	6417	452	

2. Estimated Tops of Anticipated Water, Oil, Gas or Minerals and Operator’s Plan for Protection

Upper Wasatch (freshwater)	120-1000’ possible lost circulation
Lower Williams Fork (gas)	4906.5’ TVD
Rollins (gas)	5584’ TVD

Casing and cementing will be designed to protect potentially productive hydrocarbons, lost circulation zones and prospectively valuable mineral deposits. All indications of usable water will be reported.

Casing will be tested to 0.22 psig/ft or 1500 psig, whichever is greater, but not to exceed 80% of the minimum internal yield pressure.

3. The Operators Minimum Specifications for Pressure Control

A schematic diagram of the BOP equipment is provided in Attachment “A”.

An annular 11”, 3M BOP along with one pipe ram and one blind ram, will be installed on the 8-5/8” surface casing. The BOP will be used, maintained and tested in accordance with requirements specified in Section III A-1 of Onshore Order 2.

The kill line will not be used as a fill up line.

This BOP will be attached to the surface casing and tested to 2000 psi before drilling out. The surface casing will be tested to 80% of the rated burst pressure before drilling out.

In addition, the BOP will be tested after any repairs made or breaks in the connections. The BOP will be fully tested at least every 21 days.

4. Proposed Casing Setting and Cementing Program

8-5/8” surface casing will be set ~ 1000’, covering all freshwater zones and will be cemented to surface. Cement volume will be calculated to lift cement to surface plus 75% excess. The cement volume for the 4-1/2” production casing will be calculated to cover 500’ above any commercial hydrocarbon zones encountered.

Casing Program:

Hole Size	Casing Size	Wt.	Grade	Connection	Length	Setting Depth	Condition
12-1/4"	8-5/8"	32.0#	K-55	LTC	1,000'	1,000'	New
7-7/8"	4-1/2"	11.6#	N-80	BTC	5,830'	7,351'	New

8-5/8", 32#, K-55, LTC	Collapse	Burst	Tensile	ID	Make-up Torque
100%	2020 psi	3520 psi	489,000 lb	8.921"	Optimum – 4350
80%	1616 psi	2816 psi	391,200 lb	8.765" Drift	

4-1/2", 11.6#, N-80, BTC	Collapse	Burst	Tensile	ID	Make-up Torque – Optimal (ft-lbs)
100%	6,350 psi	7,780 psi	267,000 lb	4.00"	Make up to mark
80%	5,080 psi	6,224 psi	213,600 lb	3.875" Drift	

Casing Program							
Item	From (ft)	To (ft)	Length (ft)	Weight (ppf)	Grade	Joint Type	Total Weight (lbs)
8-5/8"	0	1000	1000	32.0	K-55	LTC	36,000
4-1/2"	0	7351	7351	11.6	N-80	BTC	77,597

Minimum Safety Factors			
Item	External Pressure Collapse	Internal Yield Pressure	Tension Yield Strength
Target	1	1.1	1.3
8-5/8"	4.5	1.7	4.8
4-1/2"	1.9	1.6	3.2

Cementing Program:

Casing String:	8-5/8", 36#, K-55 Surface Casing	
Slurry Design Basis:	Lead slurry: Halliburton Rockies Light Cement (see below for additives). 8-5/8" X 12-1/4" annulus with 75% excess, 60' of 8-5/8" X 16" annulus. Calculated top of cement = Surface' Tail slurry: Halliburton Standard Cement. 42' of 8-5/8", 36# shoe track; 200' of 8-5/8" X 12-1/4" annulus with 75% excess. Calculated top of cement = 800' MD	
Fluids Sequence / Volume:	Spacer	10 bbls Water Spacer at 8.3 ppg
	Lead Slurry	78.1 bbl / 438.6 cf / 185 sxs Rockies LT, 12.3 ppg; 2.37 cf/sx
	Tail Slurry	23.3 bbl / 130.9 cf / 91.5 sxs Rockies HE, 14.2 ppg; 1.43 cf/sx

SURFACE LEAD CEMENT

Rockies LT
94 lbm/sk Standard Cement (Cement)

Fluid Weight 12.30 lbm/gal
Slurry Yield: 2.37 ft³/sk
Total Mixing Fluid: 13.76 Gal/sk
Top of Fluid: 0 ft
Calculated Fill: 800 ft
Volume: 80.62 bbl
Calculated Sacks: 190.98 sks
Proposed Sacks: 200 sks

SURFACE TAIL CEMENT

Standard Cement
0.1 % Versaset (Thixotropic Additive)
0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)

Fluid Weight 14.20 lbm/gal
Slurry Yield: 1.43 ft³/sk
Total Mixing Fluid: 6.82 Gal/sk
Top of Fluid: 800 ft
Calculated Fill: 200 ft
Volume: 19.52 bbl
Calculated Sacks: 76.49 sks
Proposed Sacks: 80 sks

Casing String:	4-1/2", 11.6#, N-80 Production Casing	
Slurry Design Basis:	Lead slurry: Halliburton Light Standard; 4-1/2" X 8-3/4" annulus with 25% excess, 100' of 4-1/2" X 8-5/8" annulus. Calculated top of cement 900' MD	
	Tail slurry: Halliburton 50/50 Poz Mix Premium; 42' of 4-1/2", 11.6# shoe track; 4-1/2" X 8-3/4" annulus with 40% excess. Calculated top of cement 500' MD above the top of Mesaverde	
Fluids Sequence / Volume:	Spacer	10 bbl Water
	Reactive Spacer	30 bbls SUPER FLUSH 101 at 10 ppg
	Spacer	10 bbl Water
	Lead Slurry	83.3 bbls / 467.5 cf / 275 sxs HLC-Type V/SJ 12.4 ppg; 1.89 cf/sx
	Tail Slurry	267.2 bbl / 1500.1 cf / 1191 sxs Premium Valley Tail, 13.6 ppg; 1.26 cf/sk.
	Displacement	89.8 bbls 2% KCl Water

PRODUCTION LEAD CEMENT

Halliburton Light Standard
61.1 lbm/sk Standard Cement (Cement)
21.84 lbm/sk Pozmix A (Light Weight Additive)
8 % Halliburton Gel (Light Weight Additive)
0.3 % Halad(R)-23 (Low Fluid Loss Control)
0.3 % Versaset (Thixotropic Additive)
0.15 % WG-17 (Gelling Agent)
0.1 % HR-5 (Retarder)
0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)

Fluid Weight 12.40 lbm/gal
Slurry Yield: 1.89 ft³/sk
Total Mixing Fluid: 10.17 Gal/sk
Top of Fluid: 900 ft
Calculated Fill: 2300 ft
Volume: 174.25 bbl
Calculated Sacks: 517.64 sks
Proposed Sacks: 520 sks

PRODUCTION TAIL CEMENT

50/50 Poz Premium
 47 lbm/sk Premium Cement (Cement)
 31.2 lbm/sk Pozmix A (Light Weight Additive)
 2 % Halliburton Gel (Light Weight Additive)
 0.5 % Halad(R)-23 (Thixotropic Additive)
 0.3 % Halad(R)-322 (Low Fluid Loss Control)
 0.3 % Versaset (Low Fluid Loss Control)
 0.1 % HR-5 (Retarder)
 0.2 % Super CBL (Gas Migration Control)
 0.3 % CFR-3 (Dispersant)
 0.125 lbm/sk Poly-E-Flake (Lost Circulation Additive)

Fluid Weight 13.60 lbm/gal
 Slurry Yield: 1.26 ft³/sk
 Total Mixing Fluid: 5.67 Gal/sk
 Top of Fluid: 3200 ft
 Calculated Fill: 3800 ft
 Volume: 291.64 bbl
 Calculated Sacks: 1299.57 sks
 Proposed Sacks: 1300 sks

** Note: All cement calculations will be confirmed onsite

5. Mud Program

The mud specifications described in Mud Table A will be used to drill surface to 1,000'. The system will be converted to the mud specifications described in Mud Table B for drilling below 1000'. Mud properties will generally follow the schedule below but may change as hole conditions dictate. Sufficient mud materials to maintain mud properties, control lost circulation and to contain blowout will be available at the wellsite. All mud additives are biodegradable and Material Safety Data Sheets will be kept on location at all times. No chrome constituent additives will be used in the mud system without prior BLM approval.

Mud Table A

Hole Section / operation:				Drill 12-1/4" Surface hole to 1,000' MD			
Type	Density (ppg)	Viscosity	PV	YP	API FL	Drill Solids	Gels 10 sec
WBM - LSND	8.4 - 8.8	36 - 42	12 - 18	12 - 16	10 - 15	4% - 6%	8 - 15

Mud Table B

Hole Section / operation:				Drilling 7-7/8" Production interval			
Type	Density (ppg)	Viscosity	PV	YP	API FL	pH	Drill Solids
WBM - LSND	8.7 - 9.5	45 - 55	12 - 18	16 - 24	< 8	9.5 - 10.0	4% - 6%

The mud will be checked several times daily to determine density, viscosity, chlorides, pH, fluid loss, and LCM.

In addition, the circulating system will contain a gas monitoring system to continuously monitor total hydrocarbon gas levels.

6. Logging Program

The logging program for the well is described in the table below. Due to the inherent instability of the wellbore, there is an increased risk of losing wireline logging tools. Consequently, wells are evaluated using cased hole logging to evaluate resource potential. Open hole logs may be run under specific circumstances (e.g. for geomechanical data).

Hole Section:	Logging Company	Required Sensors / Service
12-1/4" Surface:	Scientific Drilling	Real time MWD with inclination and azimuth, GR logs will be run.
7-7/8" Production:	Scientific Drilling	Real time MWD with inclination and azimuth, GR logs will be run.
Cased Hole:	Halliburton	cement bond, casing collar locator, spectral gamma ray, neutron, and temperature logs will be acquired from TD up to top of cement
Open Hole:	Halliburton	Neutron density, sonic, spectral gamma ray, spontaneous potential and resistivity

7. Anticipated Pressures and Temperatures

No abnormal pressures, temperatures or hazards are expected to be encountered. No overpressured intervals are expected. Proper mud weight will be maintained to drill at a balanced or slightly over-balanced condition.

The Williams Fork Shale zone has potential for lost circulation due to the fractured nature of the shale. In addition to drilling in a balanced or slightly over-balanced condition, the drilling fluid will contain various types of LCM to plug the fractures and prevent losses.

No H₂S or other hazardous gases have been encountered in offset wells.

8. Directional Program

Maximum Planned Hole Inclination:	46.22 deg
Proximity Issues:	None
Survey Program:	Real-Time MWD

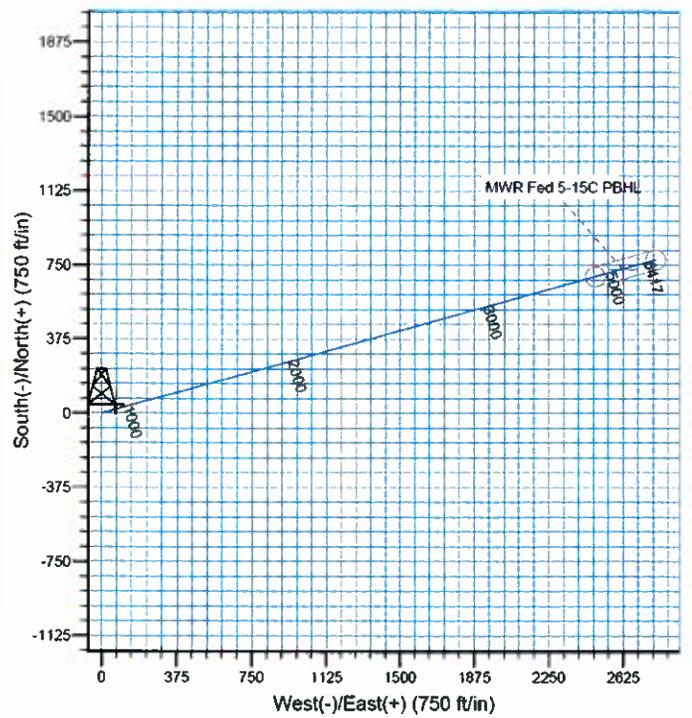
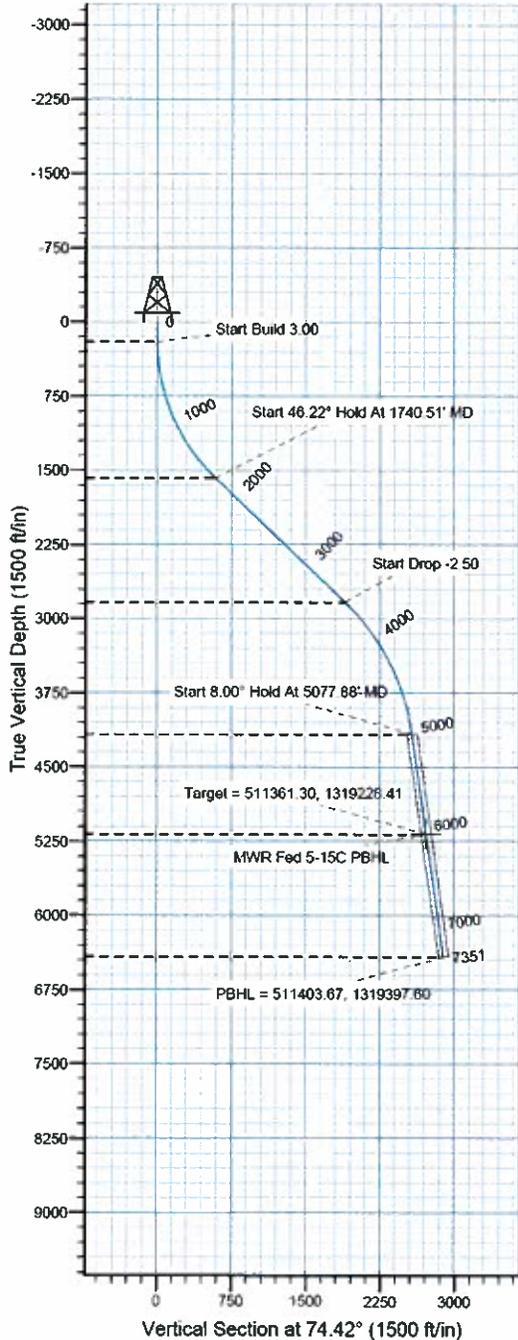
WELL DETAILS: My Way Ranch Federal 5-15C

		GL 6869' & RKB 18' @ 6887.00ft (Unknown Rig)		6869.00		Slot
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	510700.63	1316590.09	39° 12' 38.562 N	107° 54' 43.788 W	



Azimuths to True North
Magnetic North: 10.44°

Magnetic Field
Strength: 52271.7nT
Dip Angle: 65.57°
Date: 2009/12/31
Model: IGRF2005-10



FORMATION TOP DETAILS

Formation data is available

Plan: Plan #1 (My Way Ranch Federal 5-15C/OH)

Created By: Rex Hall Date: 2010-06-09

PROJECT DETAILS: Garfield County, CO NAD27

Geodetic System US State Plane 1927 (Exact solution)
Datum NAD 1927 (NADCON CONUS)
Ellipsoid Clarke 1866
Zone Colorado Central 502

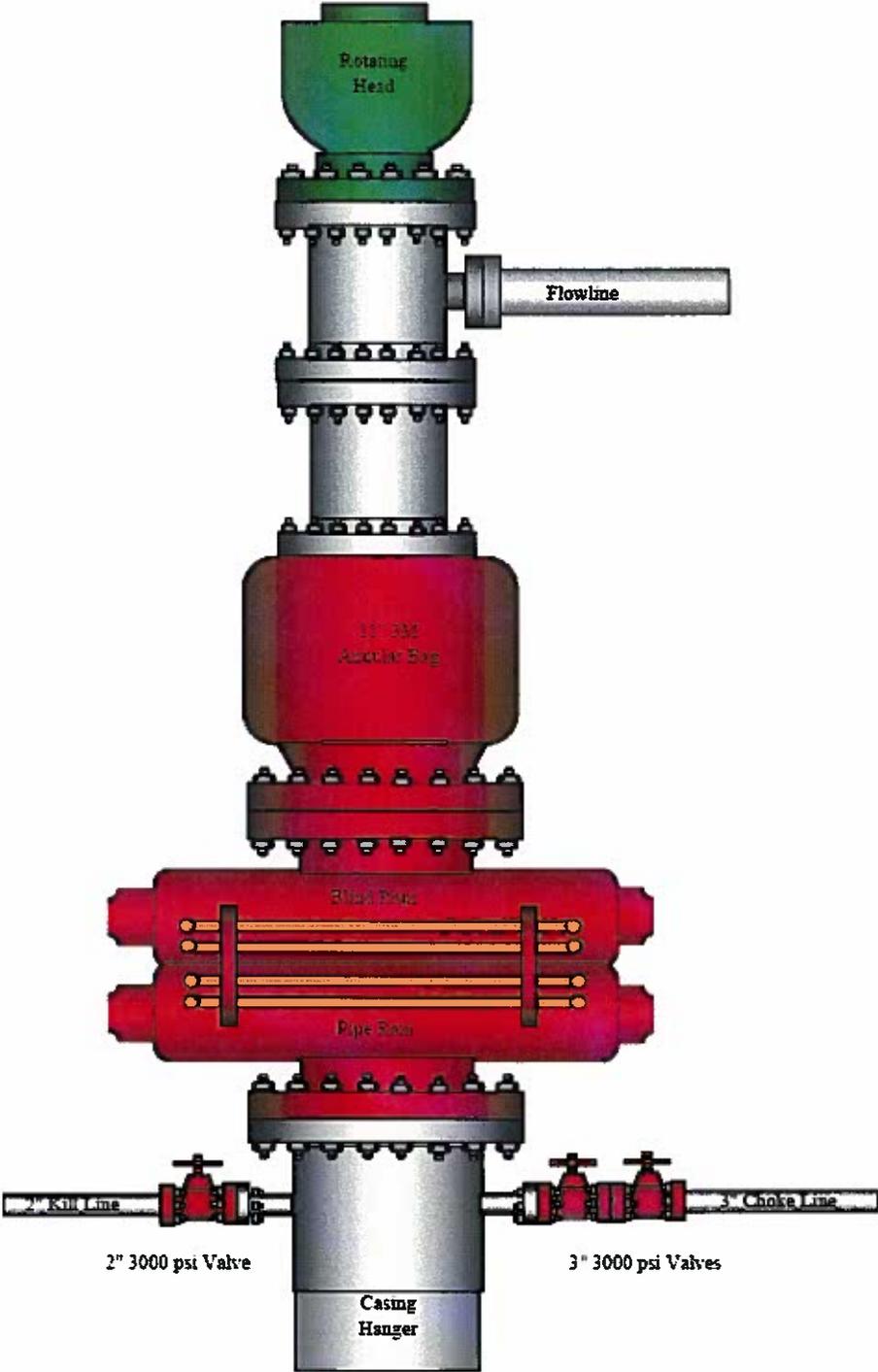
System Datum Mean Sea Level
Local North No north reference data is available

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	1740.51	46.22	74.42	1578.61	158.01	566.71	3.00	74.42	586.33	
4	3549.27	46.22	74.42	2830.39	508.74	1824.56	0.00	0.00	0.00	1894.15
5	5077.88	8.00	74.42	4166.00	692.36	2483.12	2.50	180.00	2577.64	
6	6097.80	8.00	74.42	5176.00	730.49	2619.86	0.00	0.00	2719.79	MWR Fed 5-15C PBHL
7	7351.00	8.00	74.42	6417.00	777.33	2787.86	0.00	0.00	2894.20	

Attachments

a) BOP Schematic



b) Choke Manifold Schematic

