



**OXY USA Inc.
9-POINT DRILLING PLAN**

Well Information

Hells Gulch Federal 26-11C
Section 26, Township 8S, Range 92W
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

Projected Formation Tops		GL: 7985	KB: 8015			
Tops		MD (ft) Reference KB	TVD (ft) Reference KB	TVDSS (ft)	Comments	
	Wasatch "G"	1715	1715	6300	poss gas	
	Fort Union	3815	3815	4200	salt water	
Mesaverde	Williams Fork	Ohio Creek ("Mesaverde" top)	4915	4915	3100	salt water
		Williams Fork ("base Ohio Creek")	5205	5205	2810	saltwater, poss gas
		Top of Gas	6245	6245	1770	● gas
		Cameo Coal	7545	7545	470	● gas
	Iles	Rollins	7960	7960	55	saltwater
		Cozzette	8486	8486	-471	poss gas
		Corcoran	8664	8664	-649	poss gas
	Mancos	9007	9007	-992	possible gas	
	Mancos Shale Marker	10975	10975	-2960		
	Niobrara	12312	12312	-4297		
	Frontier	13379	13379	-5364		
	Mowry	13463	13463	-5448		
	Dakota	13847	13847	-5832		
	Proposed TD	14247	14247	-6232		

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

Upper Wasatch	(freshwater)	120-500' possible lost circulation
Williams Fork (Top of Gas)	(gas)	6,245' TVD
Cameo Coal	(gas)	7,545' 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.

Surface Casing will be tested to 1,500 psig, Intermediate Casing will be tested to 2,500 psi.

3. The Operators Minimum Specifications for Pressure Control

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

An annular 13 5/8", 10M BOP along with one pipe ram and one blind ram + drilling spool + one pipe ram, will be installed on the 13 3/8" 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 2,000 psi before drilling out. The surface casing will be tested to 1,500 psi before drilling out. After running the intermediate casing the BOP system will tested up to 6,500 psi. The intermediate casing will be tested up to 3,500 psi.

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

13 3/8" surface casing will be set ~ 1,500', covering all freshwater zones and will be cemented to surface. Cement volume will be calculated to lift cement to surface plus 50% excess.

8 5/8" intermediate casing will be set ~ 9,030', 50' inside Mancos. Cement design and volumes will be calculated to lift cement to 1,200' (this is 300' above 13 3/8" casing shoe).

5 1/2" production casing will be set at ~ 14,217' The cement volume for the 5 1/2" production casing will be calculated to lift cement to 8,560' (this is 500' above 8 5/8" casing shoe).

Casing Program:

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt.</u>	<u>Grade</u>	<u>Connection</u>	<u>Length</u>	<u>Setting Depth</u>	<u>Condition</u>
17-1/2"	13-3/8"	54.5#/ft	K-55	BTC	1,500'	1,500'	New
12-1/4"	8-5/8"	36.0#/ft	N-80	BTC	9,060'	9,030'	New
7-1/2"	5-1/2"	23.0#/ft	P-110	TB or MTM	14,240	14,217'	New

13-3/8", 54.5, K-55, BTC	Collapse	Burst	Tensile	ID	Make-up Torque
100%	1,130 psi	2,730 psi	853,000 lb	12.615"	Make up to mark
80%	904 psi	2,184 psi	682,400 lb	12.459" Drift	

8-5/8", 36#, N-80, BTC	Collapse	Burst	Tensile	ID	Make-up Torque
100%	4,100 psi	6,490 psi	827,000 lb	7.825"	Make up to mark
80%	3,280 psi	5,192 psi	661,600 lb	7.700" Drift	

5-1/2", 23.0#, P-110, MTM	Collapse	Burst	Tensile	ID	Make-up Torque - Optimal (ft-lbs)
100%	14,540 psi	14,530 psi	729,000 lb	4.67"	Make up to mark
80%	11,632 psi	11,624 psi	583,200 lb	4.545" Drift	

Casing Program							
Item	From (ft)	To (ft)	Length (ft)	Weight (ppf)	Grade	Joint Type	Total Air Weight (lbs)
13-3/8"	0	1,500	1,500	54.5	K-55	BTC	81,750
8-5/8"	0	9,060	9,030	36.0	N-80	BTC	326,160
5-1/2"	0	14,240	14,217	23.0	P-110	MTM	327,520

Minimum Safety Factors			
Item	External Pressure Collapse	Internal Yield Pressure	Tension Yield Strength
Target	1	1.2	1.6
13-3/8"	1.6	1.8	4.3
8-5/8"	1.7	1.2	2.1
5-1/2"	1.7	1.2	1.7

Cementing Program:

Casing String:	13-3/8", 54.5#, K-55 Surface Casing, 17-1/2" OH	
Slurry Design Basis:	Lead slurry: ~810' of 13-3/8" x 17-1/2" annulus with 50% excess, 90' of 13-3/8" x 20" annulus Tail slurry: 50' of 13-3/8", 54.5# shoe track, 600' of 13-3/8" x 17-1/2" annulus with 50% excess + 30' of 17-1/2" hole.	
Fluids Sequence / Volume:	Spacer	10 bbls Fresh Water + 30 bbls Superflush + 10 bbls Fresh Water.
	Lead Slurry	Calculated bbls of Versacem Cement, 12.3 ppg; 2.34 cf/sk Goal TOC: Surface
	Tail Slurry	Calculated bbls of Versacem Cement, 12.8 ppg; 2.08 cf/sk Goal TOC: 600' Above Shoe
	Displacement	Calculated bbls of fresh water

SURFACE LEAD CEMENT

Fluid 4: 12.3 VERSACEM LEAD
 VERSACEM (TM) SYSTEM
 0.25 lbm/sk Poly-E-Flake (Additive Material)
 0.1 % Tuf Fiber 594 (Additive Material)

SURFACE TAIL CEMENT

Fluid 5: 12.8 VERSACEM TAIL
 VERSACEM (TM) SYSTEM
 0.25 lbm/sk Poly-E-Flake (Additive Material)

Casing String:	8-5/8", 36#, N-80 Intermediate Casing	
Slurry Design Basis:	Lead slurry: 8-5/8 x 12-1/4" annulus with 10% excess (use of caliper logs), 300' of 8-5/8" x 12.615": annulus. Calculated top of cement = 1200' Tail slurry: 42' of 8-5/8", 36# shoe track; 4,645' of 8-5/8" X 12-1/4" annulus with 15% excess (use of caliper log). Calculated top of cement = 4,415'.	
Fluids Sequence / Volume:	Spacer	10 bbls Fresh Water + 20 bbls Superflush + 10 bbls Fresh Water
	Lead Slurry	Calculated bbls of Extendacem Cement, 12.4 ppg; 1.89 cf/sk Goal TOC: 300' Above Surface Shoe
	Tail Slurry	Calculated bbls of Varicem Cement, 13.1 ppg; 1.96 cf/sk Goal TOC: 500' Above Mesaverde Top
	Displacement	Calculated bbls Water

INTERMEDIATE LEAD CEMENT

Fluid 4: 12.4 EXTENDACEM LEAD
 EXTENDACEM (TM) SYSTEM
 0.125 lbm/sk Poly-E-Flake (Additive Material)

INTERMEDIATE TAIL CEMENT

Fluid 5: 13.1 VARICEM TAIL

VARICEM (TM) CEMENT

0.125 lbm/sk Poly-E-Flake (Additive Material)

Casing String:	5-1/2", 23#, P-110 Production Casing	
Slurry Design Basis:	Single slurry: 42' of 5-1/2", 23# shoe track; 5-1/2" x 7-1/2" annulus with 10% excess (use of caliper log) + 500' 5-1/2" x 7.825". Calculated top of cement 500' inside 8 5/8" casing shoe.	
Fluids Sequence / Volume:	Spacer	30 bbl Tuned Spacer III 12.0 ppg
	Tail Slurry	Calculated volume of Varicem Cement, 15.7 ppg; 1.55 cf/sk.
	Displacement	Calculated bbls Brine + additives (corrosion inhibitor)

5. Mud Program

The mud specifications described in Mud Table A will be used to drill surface to 1,530' – Surface hole interval.

The system will be converted to the mud specifications described in Mud Table B for drilling below 1,530' and up to 9060' – Intermediate hole interval.\

Finally the mud system will be converted to the mud specifications described in Mud Table C for drilling below 9,060' to TD – Production hole interval.

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 17 1/2" Surface hole to 1,500' MD			
Type	Density (ppg)	Viscosity (sec)	PV (cp)	YP (lb/100 ft ²)	API FL (ml/30')	Drill Solids	Gels 10 sec
WBM - LSND	8.4 – 8.8	36 - 42	12 - 18	12 – 20	10 -15	4% - 6%	8 - 15

Mud Table B

Hole Section / operation:				Drilling 12-1/4" Intermediate interval			
Type	Density (ppg)	Viscosity (sec)	PV (cp)	YP (lb/100 ft ²)	API FL (ml/30')	pH	Drill Solids
WBM - LSND	8.7 – 9.2	45 - 55	12 - 18	10 - 20	< 8	9.0 – 11.0	4% - 6%

Mud Table C

Hole Section / operation:				Drilling 7 1/2" Production interval			
Type	Density (ppg)	Viscosity (sec)	PV (cp)	YP (lb/100 ft ²)	API FL (ml/30')	pH	Drill Solids
WBM - LSND	9.5 – 12.0	45 - 65	8 - 12	12 - 20	< 8	10.7 – 11.2	4% - 8%

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.

Open hole logging

Run	Logs	Tool name	Interval	Vendor
1	Gamma Ray, array induction, comp. neutron, photo density, sonic	Compact Drop-Off (CDO)	Intermediate TD to surface casing	Weatherford
2	GR, array induction, comp. neutron, array density + spectral GR	SlimXtreme + HNGS	TD to +200 above cement at bottom of intermediate casing	Schlumberger
3	Rotary sidewall core (50 samples)	MSCT	TD to intermediate casing	
4	Rotary sidewall core (50 samples)	MSCT		
5	Image log + cross-dipole shear sonic	FMI + Sonic scanner	TD to intermediate casing	

Cased hole logging

Run	Logs	Tool name	Interval	Vendor
1	CBL/CCL	SSLT	TD to 500' above cement	Schlumberger

7. Anticipated Pressures and Temperatures

No abnormal temperatures or hazards are expected to be encountered.

Overpressure intervals are expected at Frontier – Mowry formations. 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.

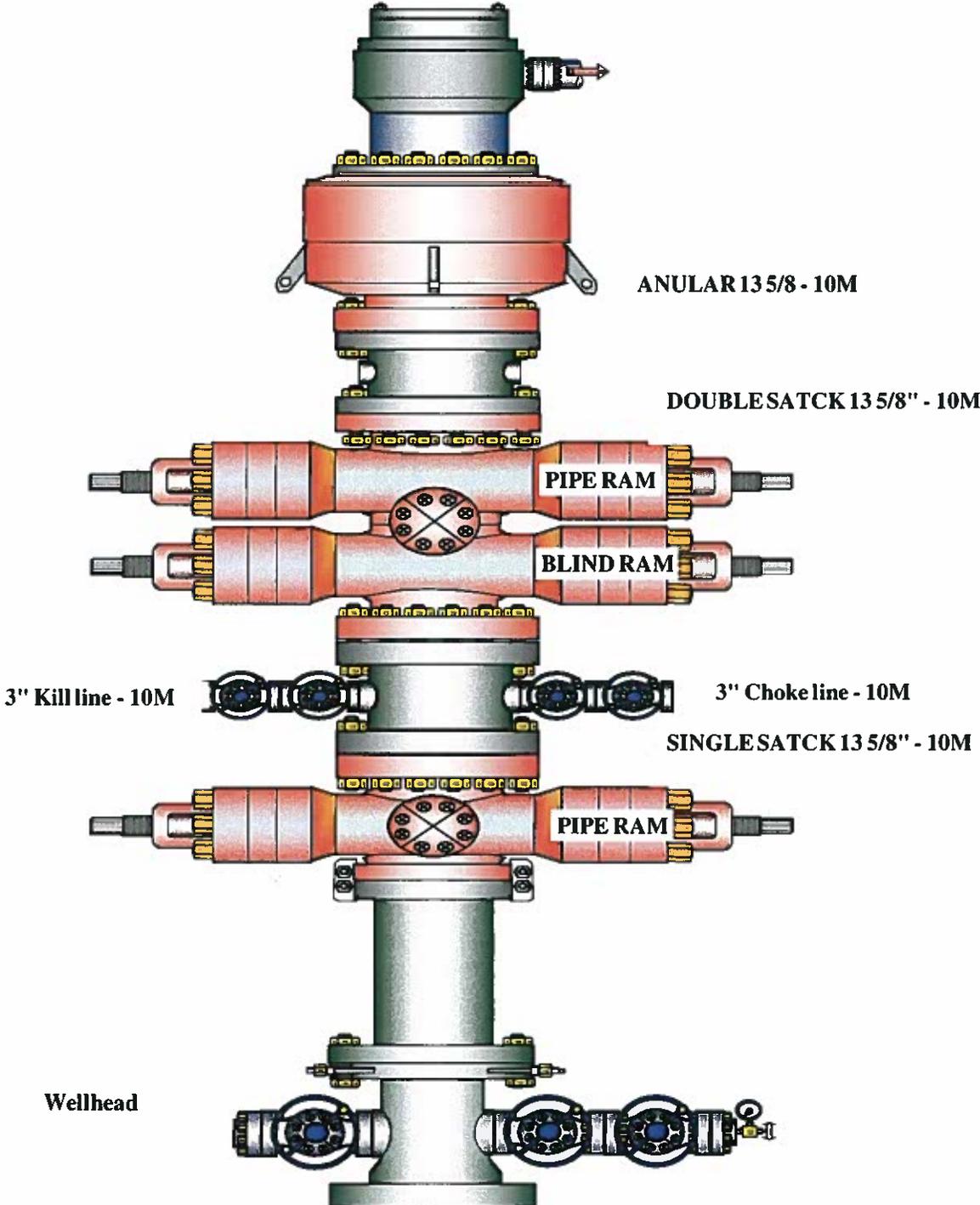
No H2S or other hazardous gases have been encountered in offset wells.

8. Directional Program

Maximum Planned Hole Inclination:	0 deg – Vertical well
Proximity Issues:	None
Survey Program:	Real-Time MWD

Attachments

a) BOP Schematic



b) Choke Manifold Schematic

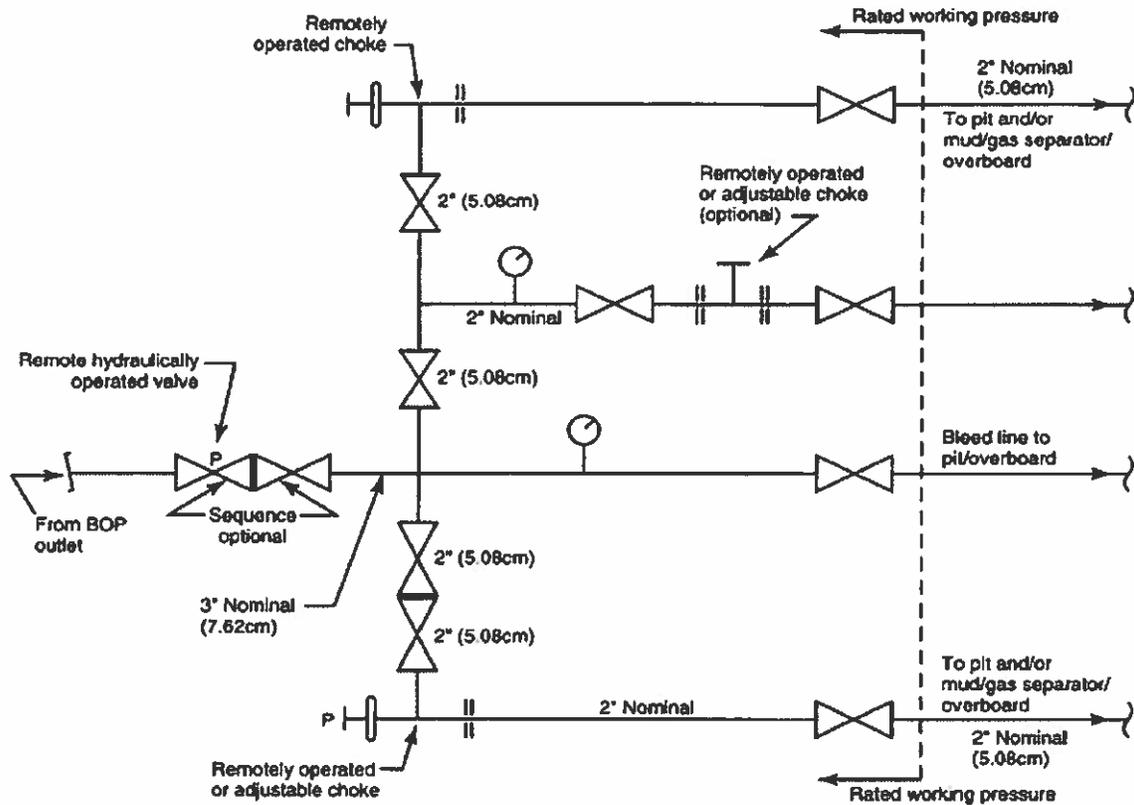


Figure 8—Example Choke Manifold Assembly for 10K, 15K, and 20K Rated Working Pressure Service—
Surface BOP Installations

c) Wellbore diagram

WELL HELLS GULCH FEDERAL 26-11C - WELLBORE DIAGRAM

FORMATION MD	Hole size & Depth MD		Csg Depth MD	CMT Slurry TOC MD	Casing Notes
				TOC at Surface	
				Top out slurry 12.5 ppg	
				Lead slurry 12.3 ppg	
				Tail slurry 12.8 ppg - up to 900'	13 3/8" 54.5 #/ft K-55 BTC From 30 to 1,500'
	17 1/2" - 1,530'		1,500'		
1715'				TOC at 4,415'	
Wasatch *G*					
3815'					
Fort Union					
				Lead slurry 12.4 ppg	
4915'					
Ohio Creek					
5205'					
Williams fork					
6245'					
Top of Gas					
7545'					
Cameo Coal					
7960'					
Rollins					
8486'					
Cozzette					
8664'					
Corcoran				Tail slurry 13.1 ppg - TOC at 4415' (- 500' above Ohio Creek)	8 5/8" 36 #/ft N-80 BTC, From 30 to 9,030'
9007'					
Mancos	12 1/4" - 9,060'		9,030'		
10975'				Program TOC at 8,530'	
Mancos Sh Mkr					
12312'					
Niobrara					
13379'					
Frontier					
13463'					
Mowry					
13847'					
Dakota					5 1/2" 23.0 #/ft P-110 MTM, From 30 to 14,217'
TD	7 1/2" - 14,247'		14,217'	Single slurry 15.7 ppg	