

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires: July 31, 2010

SEP 06 2012

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2.

1. Type of Well ☐ Oil Well ☒ Gas Well ☐ Other		5. Lease Serial No. SF-080781
2. Name of Operator ConocoPhillips Company		6. If Indian, Allottee or Tribe Name
3a. Address PO Box 4289, Farmington, NM 87499		7. If Unit of CA/Agreement, Name and/or No.
3b. Phone No. (include area code) (505) 326-9700		8. Well Name and No. YERT HZMC 1H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Surface Unit B (NWNE), 1265' FNL & 2335' FEL, Sec. 31, T29N, R09W Bottomhole Unit D (NWNW), 1135' FNL & 848' FWL, Sec. 36, T29N, R10W		9. API Well No. 30-045-35383
		10. Field and Pool or Exploratory Area BASIN MANCOS
		11. Country or Parish, State San Juan, New Mexico

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☐ Other
	☒ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once Testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

ConocoPhillips contacted Jim Lovato/BLM to request a change of plans to the APD. Attached is the Technical and Directional drill plan. The changes are as follow: 13-5/8" surface casing upgraded to 13-3/8", 54.5#, J-55; deepen the 1st intermediate string from 2308' to 3883' and upgrade to 9-5/8", 40#, L-80; 7" intermediate casing string cement will be circulated up into 9-5/8" casing ~100'. TOC will be verified with temp survey; 2nd intermediate casing point changed the target kick off point (KOP) so 7" casing will be moved up (from 5243' to 5123') to accommodate higher KOP; and 13-5/8" BOP stack will be changed out with 11" BOP stack for production hole.

RCVD SEP 19 '12
OIL CONS. DIV.
DIST. 3

Jim Lovato gave us verbal approval on 8/31 and the OCD requested a formal NOI with the changes.

BLM'S APPROVAL OR ACCEPTANCE OF THIS ACTION DOES NOT BELIEVE THE LESSEE AND OPERATOR FROM OBTAINING ANY OTHER AUTHORIZATION REQUIRED FOR OPERATIONS ON FEDERAL AND INDIAN LANDS

CONDITIONS OF APPROVAL
Adhere to previously issued stipulations.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed) Tamara Sessions		Title Staff Regulatory Technician
Signature Tamara Sessions		Date 8/31/10

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by Troy L. Solvers	Title Petroleum Engineer	Date 9/12/12
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	Office FFO	

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

Technical Plan

1. Location

Yert HZMC 1H

SHL: 1265' FNL, 2335' FEL -- T 29N, R 9W, Sec 31

BHL: 1135' FNL, 848' FWL -- T 29N, R 10W, Sec 36

GL: 5730'

2. Geological Markers

Anticipated formation tops with comments of any possible water, gas, or oil shows are indicated below:

Formation	Depth (TVD)	Remarks
Nacimiento	Surface	Water
Ojo Alamo	908'	Possible Water
Kirtland	1087'	
Fruitland	1556'	Possible Gas
Pictured Cliffs	2054'	
Lewis	2208'	
Chacra	3020'	
Upper Cliffhouse	3622'	
Massive Cliffhouse	3706'	Gas
Menefee	3733'	
Point Lookout	4336'	Gas
Mancos	4700'	
El Vado	5519'	Oil/Gas
Basal Niobrara	5826'	

See attached directional plan for anticipated formation tops in measure depth.

3. Pressure Control Equipment

See Attached BOPE & Choke Manifold Schematic for a diagram of pressure control equipment.

- 13-5/8" BOPE will be nipped up on top of wellhead after surface casing is set and cemented.
- 11" BOPE will be nipped up on top of tubing spool after 2nd intermediate string is set and cemented.
- Pressure control configuration will be designed to meet and exceed 2M standards.
- All equipment will have 3M pressure ratings.
- A rotating head will be rigged up on top of annular as seen in attached diagram.

4. Casing & Cement Program

A) The proposed casing program is outlined below:

Proposed Casing				
Casing	Hole Size	Casing Size	Weight/Grade	Depth
Surface	17-1/2"	13-3/8"	54.5#, J-55, STC, New	0' - 320'
Intermediate 1	12-1/4"	9-5/8"	40#, L-80, STC, New	0' - 3883' (TVD)
Intermediate 2	8-3/4"	7"	26.0#, L-80, LTC, New	0' - 5123' (TVD)
Production Liner	6-1/8"	4-1/2"	11.6#, P-110, BTC, New	5123' - 11743" (MD)

The production liner will be tied back into the intermediate casing string with a liner hanger with a pack-off element.

A 4-1/2", 11.6#, P-110, BTC (new) frac string will be ran and tied into liner hanger for the stimulation.

If the 6 1/8" hole is not drilled to total MD, the production liner setting depth and length will be adjusted accordingly.

B) The proposed cement program is shown below:

Cement Program				
Interval	Depth (TVD)	Volume	Slurry	Planned Cement Top
Surface	320'	370 ft ³	Lead Cmt: Type III Cmt 0.25 pps Celloflake 1.25 ft ³ /sk -- 5.75 gal/sk 15.2 ppg	Surface
Intermediate 1	3883'	1808 ft ³	Lead Cmt: Premium Lite 3% CaCl, 0.25 pps celloflake, 5 ppm LCM-1, 0.4% FL-52, 8% Bentonite, 0.4% SMS 2.13 ft ³ /sk -- 11.29 gal/sk 12.1 ppg Tail Cmt: Type III 1% CaCl, 0.25 pps celloflake, 0.2% FL-52 1.38 ft ³ /sk -- 6.64 gal/sk 14.6 ppg	Surface
Intermediate 2	5123'	249 ft ³	Tail Cmt: Premium Lite HS FM 0.25 pps celloflake, 0.3% CD-32, 6.25pps LCM-1, 1% FL-52 1.98 ft ³ /sk -- 9.80 gal/sk 12.5 ppg	3783' *
Production	N/A	N/A	N/A – Sliding sleeves and external swellable casing packers will be utilized	N/A

*A temp survey will be ran to verify TOC on the 2nd intermediate casing string.

For either of the intermediate holes, a 2-stage cement job may be performed if hole conditions indicate during operations. Stage tool will be placed appropriately as conditions indicate.

C) The proposed centralizer program is shown below:

Centralizer Program	
Interval	Centralizers
Surface	1 per joint on bottom 3 joints
Intermediate 1	10' above shoe jnt w/ collar clamp On top of 2 nd , 4 th , 6 th , 8 th , 10 th jnts 1 every 4 th jnt to Ojo Alamo 1 Turbolizer at base of Ojo Alamo 1 every joint thru Ojo Alamo 1 Turbolizer will be placed mid way into Ojo Alamo 1 every 4 th jnt from top of Ojo Alamo up to surface shoe 1 inside surface casing
Intermediate 2	10' above shoe jnt w/ collar clamp On top of 2 nd , 4 th , 6 th , 8 th , 10 th jnts 1 every 4 th jnt above 10 th jnt to intermediate 1 casing shoe 1 inside intermediate 1 casing
Production	N/A

To allow adequate time for cement to achieve a minimum of 500 psi compressive strength, a minimum of 8 hours wait on cement time for each hole section will be observed. The wellhead will not be installed, casing will not be tested, and the prior casing shoe will not be drilled out until adequate wait on cement time is achieved.

Production hole will be completed/stimulated by means of sliding sleeves spaced out appropriately throughout the production liner. Swellable packers will be placed between sleeves to provide isolation for each stage.

5. Drilling Fluids

A) The proposed drilling fluid program is outlined below:

Mud Program				
Interval	Mud Type	Weight (ppg)	Fluid Loss (cc)	Invert Ratio (Diesel/Brine)
Surface	Air Water / Gel System	Air 8.3 - 9.2	NC	
Intermediate 1	LSND / Gel system	8.4 - 10	6 - 14	
Intermediate 2	Air LSND / Gel system	Air 8.4 - 10	6 - 14	
Production	Oil Based Mud	7.0 - 8.5	4 - 12	70/30 - 90/10

The 2nd intermediate hole will be drilled with air. If hole conditions indicate, the hole will be mudded up and drilled with a water based mud (LSND/Gel).

Oil based mud will be an Invert Mud. Base fluid will be diesel. Brine fluid will be CaCl or KCl.

LCM may be added to the mud system if hole conditions indicate.

- B) Closed loop equipment will be utilized for solids control. A lined cutting pit will be utilized for water based cutting from upper hole sections. Cuttings from the 6-1/8" production hole will be hauled off to approved disposal site.

6. Abnormal Pressures & Hazards

- No over-pressured intervals expected.
- Estimated Reservoir Pressure = 1320 psi.
- No hydrogen sulfide gas is expected based off nearby well production.
- Since the well is located inside of Fruitland Coal "fairway" and Mesa Verde production intervals the following are anticipated loss zones or depleted zones:
 - Fruitland estimated pressure = 600 psi
 - Picture Cliffs estimated pressure = 200 psi
 - Point Lookout estimate pressure = 850 psi

7. Testing, Logging, Coring

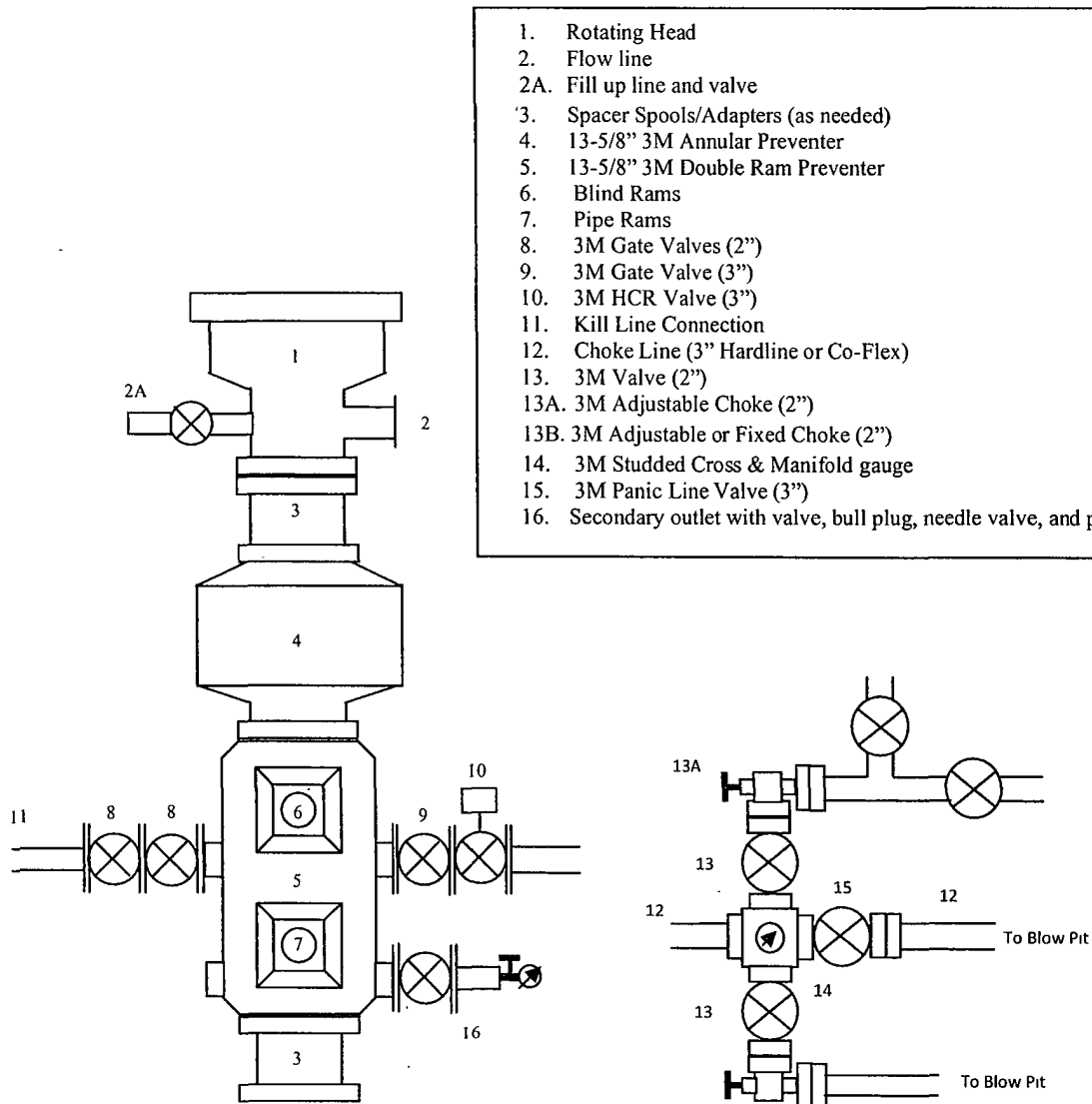
- Mud Logs: Mud loggers will be rigged up from KOP to production hole TD.
- MWD: Directional tools from KOP to production hole TD.
- LWD: Gamma Ray and Resistivity will be utilized in production hole for well placement.
- Logs: No planned open hole logs (other than the previously identified LWD logs) will be ran.
- Cased Hole Logs: A Temp Survey or CBL will be run on the 1st intermediate casing string if the cement is not circulated to surface during cement job.

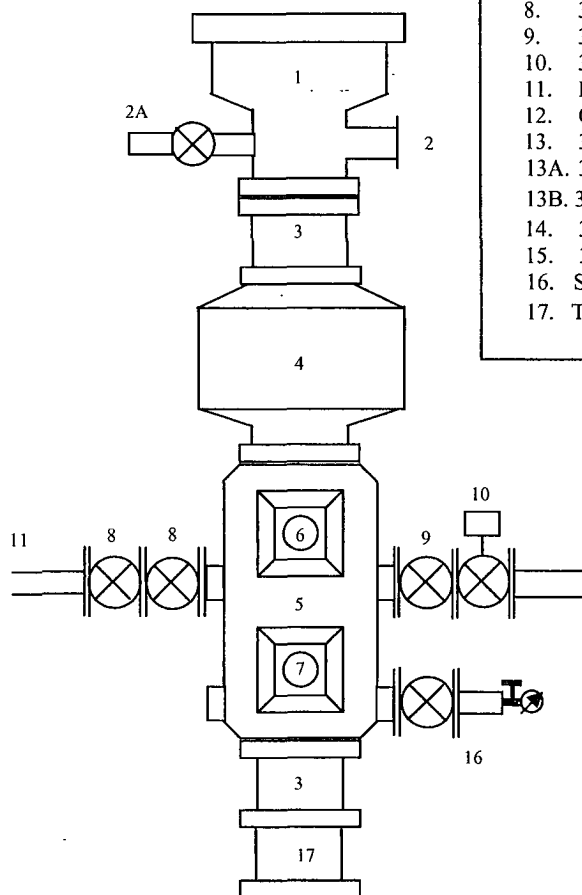
A Temp Survey will be run on the 2nd intermediate casing string to verify TOC.

8. Directional Plan

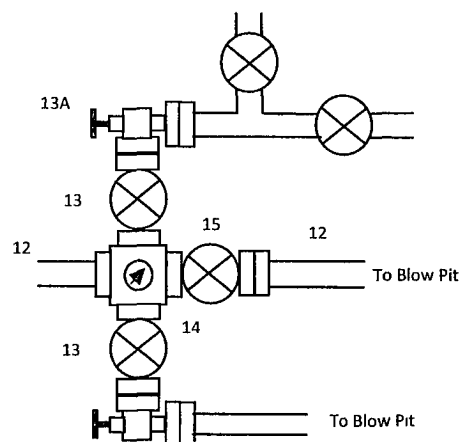
The planned wellbore directional plan and plot is attached.

The planned directional plan is built off geological targets from offset wells. The production hole will be landed and drilled within target formation horizontally utilizing LWD equipment to help steer the wellbore. On site adjustments will be made to the directional plan as formation and hole indicates.

BOPE & Choke Manifold Schematic**13-5/8" BOPE SCHEMATIC**

11" BOPE SCHEMATIC

1. Rotating Head
2. Flow line
- 2A. Fill up line and valve
3. Spacer Spools/Adapters (as needed)
4. 11" 3M Annular Preventer
5. 11" 3M Double Ram Preventer
6. Blind Rams
7. Pipe Rams
8. 3M Gate Valves (2")
9. 3M Gate Valve (3")
10. 3M HCR Valve (3")
11. Kill Line Connection
12. Choke Line (3" Hardline or Co-Flex)
13. 3M Valve (2")
- 13A. 3M Adjustable Choke (2")
- 13B. 3M Adjustable or Fixed Choke (2")
14. 3M Studded Cross & Manifold gauge
15. 3M Panic Line Valve (3")
16. Secondary outlet with valve, bull plug, needle valve, and pressure gauge
17. Tubing Spool

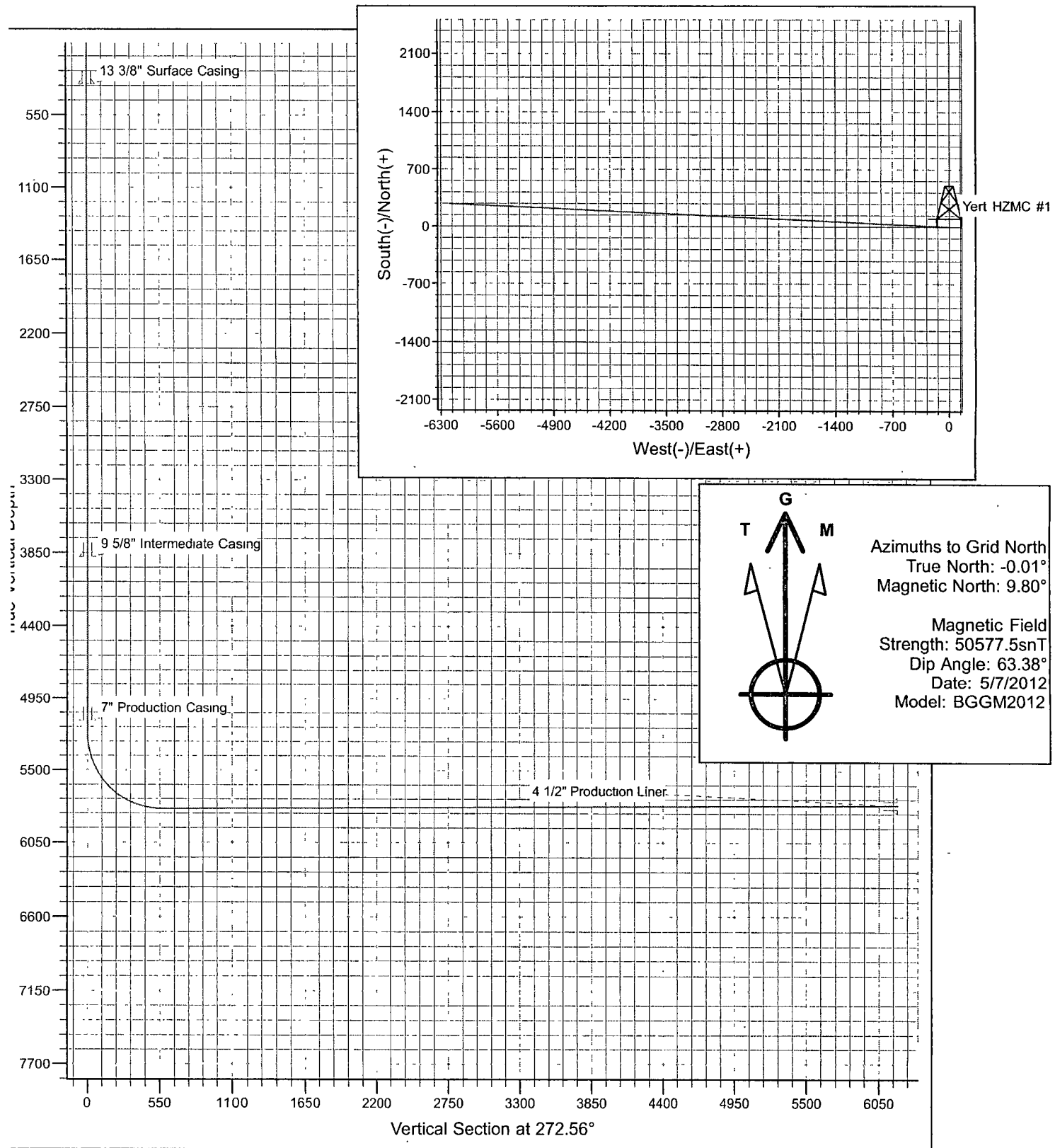


REFERENCE INFORMATION
 VELL @ 5745.0usft (Original Well Elev)
 Ground Elevation 5730.0
 Reference Lat: 36° 41' 9.361 N
 Reference Long: 107° 49' 15.719 W

Project: San Juan Basin - New Mexico West Wells
 Site: Other Named Wells
 Well: Yert HZMC #1
 Wellbore: Principal Wellbore
 Design: APD Plan 2

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	5223.4	0.00	0.00	5223.4	0.0	0.0	0.00	0.00	0.0	
3	6126.6	90.32	272.56	5796.4	25.7	-575.6	10.00	272.56	576.2	
4	11743.7	90.32	272.56	5765.0	276.6	-6187.0	0.00	0.00	6193.2	YERT HZMC 1H - BHL



ConocoPhillips SJB

San Juan Basin - New Mexico West Wells

Other Named Wells

Yert HZMC #1

Principal Wellbore

Plan: APD Plan 2

Standard Survey Report

30 August, 2012

ConocoPhillips

Survey Report

Company: ConocoPhillips SJB
Project: San Juan Basin - New Mexico West Wells
Site: Other Named Wells
Well: Yert HZMC #1
Wellbore: Principal Wellbore
Design: APD Plan 2

Local Co-ordinate Reference: Well Yert HZMC #1
TVD Reference: WELL @ 5745.0usft (Original Well Elev)
MD Reference: WELL @ 5745.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM Central Planning

Project	San Juan Basin - New Mexico West Wells, New Mexico, Directional "S"		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Ground Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site	Other Named Wells			
Site Position:		Northing:	2,108,178.26 usft	Latitude: 36° 47' 33.793 N
From:	Lat/Long	Easting:	643,887.63 usft	Longitude: 107° 20' 30.932 W
Position Uncertainty:	15.0 usft	Slot Radius:	6-1/8"	Grid Convergence: 0.29 °

Well	Yert HZMC #1, Directional Horizontal Single Lateral Three String Flat			
Well Position	+N/-S	0.0 usft	Northing:	2,068,933.89 usft
	+E/-W	0.0 usft	Easting:	503,606.60 usft
Position Uncertainty	3.5 usft	Wellhead Elevation:	usft	Ground Level: 5,730.0 usft

Wellbore	Principal Wellbore				
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	BGGM2012	5/7/2012	(°) 9.80	(°) 63.38	(nT) 50,578

Design	APD Plan 2			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.0	0.0	0.0	272.56

Survey Tool Program	Date	8/30/2012		
From	To	Survey (Wellbore)	Tool Name	Description
(usft)	(usft)			
0.0	11,743.7	APD Plan 2 (Principal Wellbore)	MWD	MWD - Standard

Planned Survey										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Build	Turn	
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate	
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)	
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00	
15.0	0.00	0.00	15.0	0.0	0.0	0.0	0.00	0.00	0.00	
Nacimiento										
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00	
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	0.00	
13 3/8" Surface Casing										
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00	
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00	
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00	
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00	
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00	

ConocoPhillips

Survey Report

Company: ConocoPhillips SJB
Project: San Juan Basin - New Mexico West Wells
Site: Other Named Wells
Well: Yert HZMC #1
Wellbore: Principal Wellbore
Design: APD Plan 2

Local Co-ordinate Reference: Well Yert HZMC #1
TVD Reference: WELL @ 5745.0usft (Original Well Elev)
MD Reference: WELL @ 5745.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM Central Planning

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)
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
908.0	0.00	0.00	908.0	0.0	0.0	0.0	0.00	0.00	0.00
Ojo Alamo									
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,087.0	0.00	0.00	1,087.0	0.0	0.0	0.0	0.00	0.00	0.00
Kirtland									
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,556.0	0.00	0.00	1,556.0	0.0	0.0	0.0	0.00	0.00	0.00
Fruitland									
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,054.0	0.00	0.00	2,054.0	0.0	0.0	0.0	0.00	0.00	0.00
Pictured Cliffs									
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,208.0	0.00	0.00	2,208.0	0.0	0.0	0.0	0.00	0.00	0.00
Lewis									
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,020.0	0.00	0.00	3,020.0	0.0	0.0	0.0	0.00	0.00	0.00
Huerfano Bentonite									
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,622.0	0.00	0.00	3,622.0	0.0	0.0	0.0	0.00	0.00	0.00
Chacra									
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,706.0	0.00	0.00	3,706.0	0.0	0.0	0.0	0.00	0.00	0.00
Mass. Cliffhouse									
3,733.0	0.00	0.00	3,733.0	0.0	0.0	0.0	0.00	0.00	0.00
Menefee									
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,883.0	0.00	0.00	3,883.0	0.0	0.0	0.0	0.00	0.00	0.00
9 5/8" Intermediate Casing									
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00

ConocoPhillips

Survey Report

Company: ConocoPhillips SJBU
 Project: San Juan Basin - New Mexico West Wells
 Site: Other Named Wells
 Well: Yert HZMC #1
 Wellbore: Principal Wellbore
 Design: APD Plan 2

Local Co-ordinate Reference: Well Yert HZMC #1
 TVD Reference: WELL @ 5745.0usft (Original Well Elev)
 MD Reference: WELL @ 5745.0usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM Central Planning

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)
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,336.0	0.00	0.00	4,336.0	0.0	0.0	0.0	0.00	0.00	0.00
Point Lookout									
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
Mancos									
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,123.0	0.00	0.00	5,123.0	0.0	0.0	0.0	0.00	0.00	0.00
7" Production Casing									
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,223.4	0.00	0.00	5,223.4	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	7.66	272.56	5,299.8	0.2	-5.1	5.1	10.00	10.00	0.00
5,400.0	17.66	272.56	5,397.2	1.2	-27.0	27.0	10.00	10.00	0.00
5,500.0	27.66	272.56	5,489.4	2.9	-65.4	65.5	10.00	10.00	0.00
5,600.0	37.66	272.56	5,573.5	5.3	-119.2	119.4	10.00	10.00	0.00
5,645.0	42.16	272.56	5,608.0	6.6	-148.1	148.2	10.00	10.00	0.00
El Vado A									
5,700.0	47.66	272.56	5,646.9	8.4	-186.9	187.0	10.00	10.00	0.00
5,716.7	49.33	272.56	5,658.0	8.9	-199.4	199.6	10.00	10.00	0.00
El Vado B									
5,800.0	57.66	272.56	5,707.5	11.9	-266.2	266.4	10.00	10.00	0.00
5,855.8	63.24	272.56	5,735.0	14.1	-314.6	314.9	10.00	10.00	0.00
El Vado C									
5,900.0	67.66	272.56	5,753.4	15.9	-354.8	355.2	10.00	10.00	0.00
6,000.0	77.66	272.56	5,783.1	20.1	-450.0	450.5	10.00	10.00	0.00
6,100.0	87.66	272.56	5,795.9	24.5	-549.0	549.5	10.00	10.00	0.00
6,126.6	90.32	272.56	5,796.4	25.7	-575.6	576.2	10.00	10.00	0.00
6,200.0	90.32	272.56	5,796.0	29.0	-648.9	649.5	0.00	0.00	0.00
6,300.0	90.32	272.56	5,795.4	33.5	-748.8	749.5	0.00	0.00	0.00
6,400.0	90.32	272.56	5,794.8	37.9	-848.7	849.5	0.00	0.00	0.00
6,500.0	90.32	272.56	5,794.3	42.4	-948.6	949.5	0.00	0.00	0.00
6,600.0	90.32	272.56	5,793.7	46.9	-1,048.5	1,049.5	0.00	0.00	0.00
6,700.0	90.32	272.56	5,793.2	51.3	-1,148.4	1,149.5	0.00	0.00	0.00
6,800.0	90.32	272.56	5,792.6	55.8	-1,248.3	1,249.5	0.00	0.00	0.00
6,900.0	90.32	272.56	5,792.1	60.3	-1,348.2	1,349.5	0.00	0.00	0.00
7,000.0	90.32	272.56	5,791.5	64.7	-1,448.1	1,449.5	0.00	0.00	0.00
7,100.0	90.32	272.56	5,790.9	69.2	-1,548.0	1,549.5	0.00	0.00	0.00
7,200.0	90.32	272.56	5,790.4	73.7	-1,647.9	1,649.5	0.00	0.00	0.00
7,300.0	90.32	272.56	5,789.8	78.1	-1,747.8	1,749.5	0.00	0.00	0.00
7,400.0	90.32	272.56	5,789.3	82.6	-1,847.7	1,849.5	0.00	0.00	0.00
7,500.0	90.32	272.56	5,788.7	87.1	-1,947.6	1,949.5	0.00	0.00	0.00
7,600.0	90.32	272.56	5,788.1	91.5	-2,047.5	2,049.5	0.00	0.00	0.00
7,700.0	90.32	272.56	5,787.6	96.0	-2,147.4	2,149.5	0.00	0.00	0.00
7,800.0	90.32	272.56	5,787.0	100.5	-2,247.3	2,249.5	0.00	0.00	0.00
7,900.0	90.32	272.56	5,786.5	104.9	-2,347.2	2,349.5	0.00	0.00	0.00
8,000.0	90.32	272.56	5,785.9	109.4	-2,447.1	2,449.5	0.00	0.00	0.00
8,100.0	90.32	272.56	5,785.4	113.9	-2,547.0	2,549.5	0.00	0.00	0.00
8,200.0	90.32	272.56	5,784.8	118.3	-2,646.9	2,649.5	0.00	0.00	0.00
8,300.0	90.32	272.56	5,784.2	122.8	-2,746.8	2,749.5	0.00	0.00	0.00

ConocoPhillips

Survey Report

Company: ConocoPhillips SJBU
 Project: San Juan Basin - New Mexico West Wells
 Site: Other Named Wells
 Well: Yert HZMC #1
 Wellbore: Principal Wellbore
 Design: APD Plan 2

Local Co-ordinate Reference: Well Yert HZMC #1
 TVD Reference: WELL @ 5745.0usft (Original Well Elev)
 MD Reference: WELL @ 5745.0usft (Original Well Elev)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM Central Planning

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)
8,400.0	90.32	272.56	5,783.7	127.3	-2,846.7	2,849.5	0.00	0.00	0.00
8,500.0	90.32	272.56	5,783.1	131.8	-2,946.6	2,949.5	0.00	0.00	0.00
8,600.0	90.32	272.56	5,782.6	136.2	-3,046.5	3,049.5	0.00	0.00	0.00
8,700.0	90.32	272.56	5,782.0	140.7	-3,146.4	3,149.5	0.00	0.00	0.00
8,800.0	90.32	272.56	5,781.4	145.2	-3,246.2	3,249.5	0.00	0.00	0.00
8,900.0	90.32	272.56	5,780.9	149.6	-3,346.1	3,349.5	0.00	0.00	0.00
9,000.0	90.32	272.56	5,780.3	154.1	-3,446.0	3,449.5	0.00	0.00	0.00
9,100.0	90.32	272.56	5,779.8	158.6	-3,545.9	3,549.5	0.00	0.00	0.00
9,200.0	90.32	272.56	5,779.2	163.0	-3,645.8	3,649.5	0.00	0.00	0.00
9,300.0	90.32	272.56	5,778.6	167.5	-3,745.7	3,749.5	0.00	0.00	0.00
9,400.0	90.32	272.56	5,778.1	172.0	-3,845.6	3,849.5	0.00	0.00	0.00
9,500.0	90.32	272.56	5,777.5	176.4	-3,945.5	3,949.5	0.00	0.00	0.00
9,600.0	90.32	272.56	5,777.0	180.9	-4,045.4	4,049.5	0.00	0.00	0.00
9,700.0	90.32	272.56	5,776.4	185.4	-4,145.3	4,149.5	0.00	0.00	0.00
9,800.0	90.32	272.56	5,775.9	189.8	-4,245.2	4,249.5	0.00	0.00	0.00
9,900.0	90.32	272.56	5,775.3	194.3	-4,345.1	4,349.5	0.00	0.00	0.00
10,000.0	90.32	272.56	5,774.7	198.8	-4,445.0	4,449.5	0.00	0.00	0.00
10,100.0	90.32	272.56	5,774.2	203.2	-4,544.9	4,549.5	0.00	0.00	0.00
10,200.0	90.32	272.56	5,773.6	207.7	-4,644.8	4,649.5	0.00	0.00	0.00
10,300.0	90.32	272.56	5,773.1	212.2	-4,744.7	4,749.5	0.00	0.00	0.00
10,400.0	90.32	272.56	5,772.5	216.6	-4,844.6	4,849.5	0.00	0.00	0.00
10,500.0	90.32	272.56	5,771.9	221.1	-4,944.5	4,949.5	0.00	0.00	0.00
10,600.0	90.32	272.56	5,771.4	225.6	-5,044.4	5,049.5	0.00	0.00	0.00
10,700.0	90.32	272.56	5,770.8	230.0	-5,144.3	5,149.5	0.00	0.00	0.00
10,800.0	90.32	272.56	5,770.3	234.5	-5,244.2	5,249.5	0.00	0.00	0.00
10,900.0	90.32	272.56	5,769.7	239.0	-5,344.1	5,349.5	0.00	0.00	0.00
11,000.0	90.32	272.56	5,769.2	243.4	-5,444.0	5,449.5	0.00	0.00	0.00
11,100.0	90.32	272.56	5,768.6	247.9	-5,543.9	5,549.5	0.00	0.00	0.00
11,200.0	90.32	272.56	5,768.0	252.4	-5,643.8	5,649.5	0.00	0.00	0.00
11,300.0	90.32	272.56	5,767.5	256.8	-5,743.7	5,749.5	0.00	0.00	0.00
11,400.0	90.32	272.56	5,766.9	261.3	-5,843.6	5,849.5	0.00	0.00	0.00
11,500.0	90.32	272.56	5,766.4	265.8	-5,943.5	5,949.5	0.00	0.00	0.00
11,600.0	90.32	272.56	5,765.8	270.2	-6,043.4	6,049.4	0.00	0.00	0.00
11,700.0	90.32	272.56	5,765.2	274.7	-6,143.3	6,149.4	0.00	0.00	0.00
11,740.0	90.32	272.56	5,765.0	276.5	-6,183.3	6,189.4	0.00	0.00	0.00
4 1/2" Production Liner									
11,743.7	90.32	272.56	5,765.0	276.6	-6,187.0	6,193.2	0.00	0.00	0.00

ConocoPhillips

Survey Report

Company: ConocoPhillips SJB
Project: San Juan Basin - New Mexico West Wells
Site: Other Named Wells
Well: Yert HZMC #1
Wellbore: Principal Wellbore
Design: APD Plan 2

Local Co-ordinate Reference: Well Yert HZMC #1
TVD Reference: WELL @ 5745.0usft (Original Well Elev)
MD Reference: WELL @ 5745.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM Central Planning

Targets

Target Name	hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Yert HZMC #1H - LP		0.00	0.00	5,774.1	32.0	-715.3	2,068,965.87	502,891.38	36° 41' 9.678 N	107° 49' 24.500 W
- plan misses target center by 21.5usft at 6266.6usft MD (5795.6 TVD, 32.0 N, -715.4 E)										
- Circle (radius 100.0)										
Yert HZMC #1H - BHL		0.00	0.00	5,721.5	276.7	-6,187.0	2,069,210.53	497,420.09	36° 41' 12.098 N	107° 50' 31.676 W
- plan misses target center by 43.5usft at 11743.7usft MD (5765.0 TVD, 276.6 N, -6187.0 E)										
- Circle (radius 100.0)										
YERT HZMC 1H - BHL		0.00	0.00	5,766.0	149.3	-6,000.0	2,069,083.19	497,607.15	36° 41' 10.839 N	107° 50' 29.379 W
- plan misses target center by 118.8usft at 11551.2usft MD (5766.1 TVD, 268.0 N, -5994.6 E)										
- Point										
YERT HZMC 1H - B1		0.00	0.00	5,672.0	44.3	-982.4	2,068,978.15	502,624.24	36° 41' 9.800 N	107° 49' 27.780 W
- plan misses target center by 122.1usft at 6534.6usft MD (5794.1 TVD, 44.0 N, -983.1 E)										
- Point										
YERT HZMC 1H - BHL		0.00	0.01	5,765.0	276.6	-6,187.0	2,069,210.51	497,420.11	36° 41' 12.098 N	107° 50' 31.676 W
- plan hits target center										
- Point										
YERT HZMC 1H - BHL -		0.00	0.01	5,675.0	358.6	-6,187.0	2,069,292.42	497,420.10	36° 41' 12.908 N	107° 50' 31.676 W
- plan misses target center by 121.7usft at 11743.7usft MD (5765.0 TVD, 276.6 N, -6187.0 E)										
- Point										
YERT HZMC 1H - B7 (B		0.00	0.00	5,670.0	276.9	-6,187.4	2,069,210.73	497,419.76	36° 41' 12.100 N	107° 50' 31.680 W
- plan misses target center by 95.0usft at 11743.7usft MD (5765.0 TVD, 276.6 N, -6187.0 E)										
- Point										

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
320.0	320.0	13 3/8" Surface Casing	13-3/8	17-1/2
3,883.0	3,883.0	9 5/8" Intermediate Casing	9-5/8	12-1/4
5,123.0	5,123.0	7" Production Casing	7	8-3/4
11,740.0	5,765.0	4 1/2" Production Liner	4-1/2	6-1/8

ConocoPhillips

Survey Report

Company: ConocoPhillips SJB
Project: San Juan Basin - New Mexico West Wells
Site: Other Named Wells
Well: Yert HZMC #1
Wellbore: Principal Wellbore
Design: APD Plan 2

Local Co-ordinate Reference: Well Yert HZMC #1
TVD Reference: WELL @ 5745 0usft (Original Well Elev)
MD Reference: WELL @ 5745.0usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM Central Planning

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
15.0	15.0	Nacimiento		0.00	
908.0	908.0	Ojo Alamo		0.00	
1,087.0	1,087.0	Kirtland		0.00	
1,556.0	1,556.0	Fruitland		0.00	
2,054.0	2,054.0	Pictured Cliffs		0.00	
2,208.0	2,208.0	Lewis		0.00	
3,020.0	3,020.0	Huerfano Bentonite		0.00	
3,622.0	3,622.0	Chacra		0.00	
3,706.0	3,706.0	Mass. Cliffhouse		0.00	
3,733.0	3,733.0	Menefee		0.00	
4,336.0	4,336.0	Point Lookout		0.00	
4,700.0	4,700.0	Mancos		0.00	
5,645.0	5,608.0	El Vado A		0.00	
5,716.7	5,658.0	El Vado B		0.00	
5,855.8	5,735.0	El Vado C		0.00	

Checked By: _____ Approved By: _____ Date: _____