

District I1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720**District II**811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720**District III**1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170**District IV**1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462**State of New Mexico
Energy, Minerals and Natural
Resources****Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505**Form C-101
Revised July 18, 2013

Permit 185690

OIL CONS. DIV DIST. 3**MAY 07 2014****APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE**

1. Operator Name and Address BURLINGTON RESOURCES OIL & GAS COMPANY LP 3401 E. 30TH STREET FARMINGTON, NM 87402		2. OGRID Number 14538
4. Property Code 7105		3. API Number 30-045-35459
5. Property Name Heaton		6. Well No. 001M

7. Surface Location

UL - Lot F	Section 33	Township 31N	Range 11W	Lot Idn F	Feet From 2231	N/S Line N	Feet From 2052	E/W Line W	County SAN JUAN
---------------	---------------	-----------------	--------------	--------------	-------------------	---------------	-------------------	---------------	--------------------

8. Proposed Bottom Hole Location

UL - Lot K	Section 33	Township 31N	Range 11W	Lot Idn K	Feet From 1930	N/S Line S	Feet From 2400	E/W Line W	County San Juan
---------------	---------------	-----------------	--------------	--------------	-------------------	---------------	-------------------	---------------	--------------------

9. Pool Information

BASIN DAKOTA (PRORATED GAS)	71599
BLANCO-MESAVERDE (PRORATED GAS)	72319

Additional Well Information

11. Work Type New Well	12. Well Type GAS	13. Cable/Rotary	14. Lease Type Private	15. Ground Level Elevation 5813
16. Multiple Y	17. Proposed Depth 6926	18. Formation Dakota Formation	19. Contractor	20. Spud Date
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☐ We will be using a closed-loop system in lieu of lined pits**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	12.25	9.625	32.3	200	121	0
Int1	8.75	7	23	4298	968	0
Prod	6.25	4.5	11.6	6926	348	4198

Casing/Cement Program: Additional Comments

This is a Type #3 well as indicated in the BR/COPC Master Drilling Plan. Cement volumes are indicated in cubic feet instead of sacks of cement. The C-144 and DHC (if applicable) will be submitted after the APD is approved. A copy of the Project Proposal and Plat will be sent today.

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	2000	2000	SCHAFER

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.		OIL CONSERVATION DIVISION	
Signature: <i>Willie Busse</i>		Approved By: <i>Charlie Terri</i> 5-15-14	
Printed Name: <u>Willie Busse</u>		Title: SUPERVISOR DISTRICT #3	
Title: <u>Hold C104</u>		Title:	
Email Address: <u>for Directional Survey and "As Drilled" plat</u>		Approved Date:	
Date: <u>5/6/14</u>		Expiration Date:	
Phone:		Conditions of Approval Attached	

AV

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, N.M. 87505
Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, N.M. 87505

Form C-102

Revised August 1, 2011

Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-045-35459	² Pool Code 71599/72319	³ Pool Name BLANCO BASIN DAKOTA / MESA VERDE
⁴ Property Code 7105	⁵ Property Name HEATON	⁶ Well Number 1M
⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP	⁹ Elevation 5813

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	33	31 N	11 W		2231	NORTH	2052	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
K	33	31 N	11 W		1930	SOUTH	2400	WEST	SAN JUAN

¹² Dedicated Acres 320.00 (S/2)	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
---	-------------------------------	----------------------------------	-------------------------

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16 N 89°21'51" W 2652.55' USA SF-078097	2631.84' EULA MARCOTTE ET AL SURFACE LAT: 36.8565992° N LONG: 107.9980840° W NAD 83 LAT: 36°51.39575' N LONG: 107°59.84763' W NAD 27 2052'	S 89°09'42" W LOT 2 (37.56) BEARINGS & DISTANCES SHOWN ARE REFERENCED TO THE NEW MEXICO COORDINATE SYSTEM, WEST ZONE, NAD 83, UNLESS OTHERWISE NOTED. 2231'	LOT 1 (38.05) 2488.12' 5329.78'
N 100°16'06" W 2627.88'	S 17°33'54" E-1168.14'	SECTION 33 BOTTOM HOLE LAT: 36.8535419° N LONG: 107.9968725° W NAD 83 LAT: 36°51.21230' N LONG: 107°59.77494' W NAD 27 2400'	USA SF-078097 N 120°06" W 2611.59'
N 00°12'53" W 2609.99'	WES OLIVER ET UX N 89°34'34" W	1930'	

17 OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Arleen Kellywood 1/5/12
Signature Date
Arleen Kellywood
Printed Name
arleen.r.kellywood@conocophillips.com
E-mail Address

18 SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

11/17/11
Date of Survey
Signature and Seal of Professional Surveyor
MARSHALL W. LINDEN
NEW MEXICO
12 17078
17078
Certificate Number

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural
Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Conditions

Permit 185690

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: BURLINGTON RESOURCES OIL & GAS COMPANY LP [14538] 3401 E. 30TH STREET FARMINGTON, NM 87402	API Number:
	Well: Heaton #001M

OCD Reviewer	Condition
--------------	-----------

Hold C104

for Directional Survey
and "As Drilled" plat

*Note: H1M is located north of the
Chaco line, wellbore needs to move
~ 1080 ft. to south to be
within 660 ft. setbacks*

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural
Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Comm

Permit 185

PERMIT COMMENTS

Operator Name and Address: BURLINGTON RESOURCES OIL & GAS COMPANY LP [14538]		API Number:
		Well: Heaton #001M
Created By	Comment	Comment Date

RCVD FEB 20 '13

OIL CONS. DIV.

DIST. 3

ConocoPhillips SJB

San Juan Basin - New Mexico West Wells

Other Named Wells

Heaton 1M

30-045-35459

Wellbore #1

OIL CONS. DIV DIST. 3

MAY 14 2014

Plan: Design #1

Standard Planning Report

12 December, 2012

REFERENCE INFORMATION

RKB @ 5825.0usft (Original Well Elev)
Ground Elevation 5812.0
Reference Lat: 36° 51' 23.745 N
Reference Long: 107° 59' 50.858 W

Project: San Juan Basin - New Mexico West W
Site: Other Named Wells
Well: Heaton 1M
Wellbore: Wellbore #1
Design: Design #1

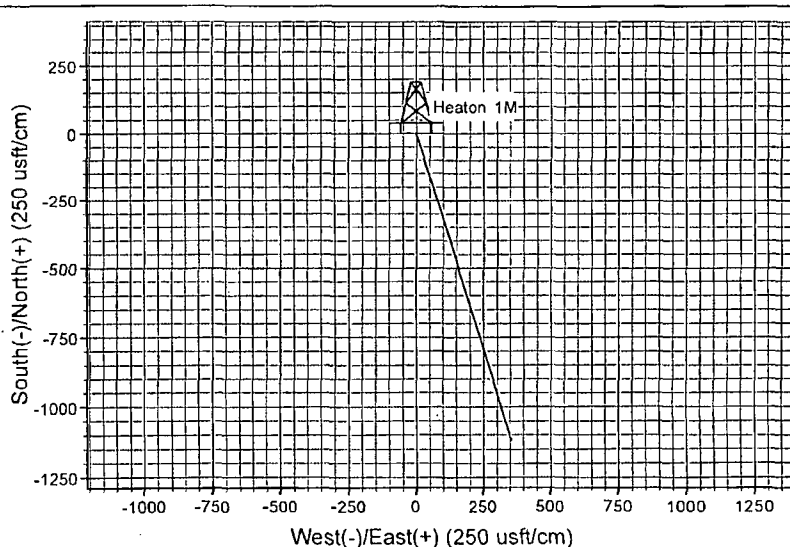
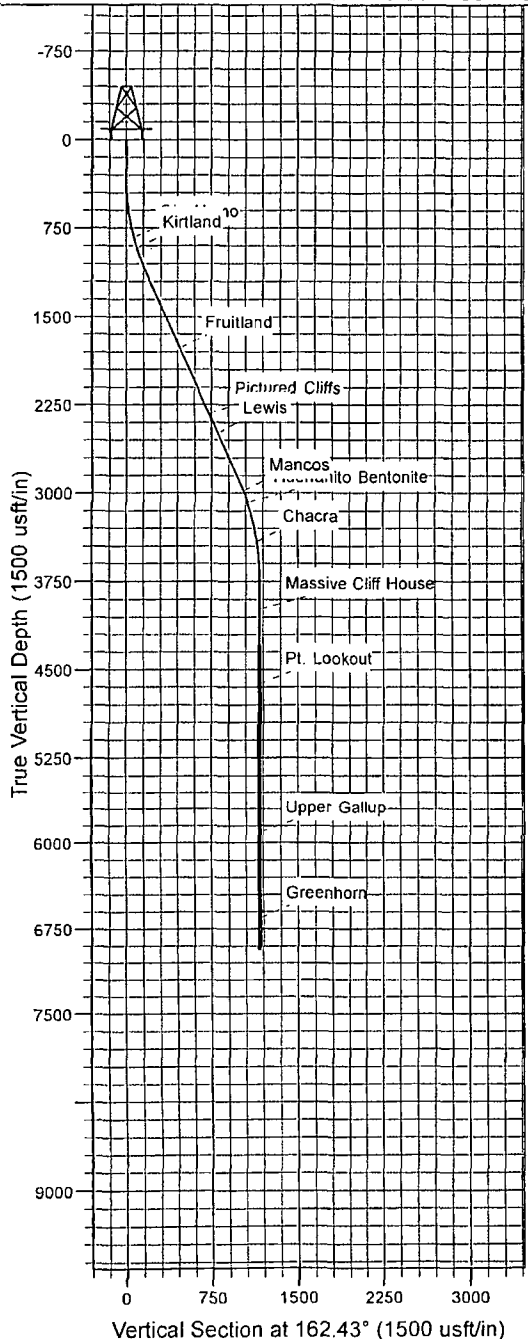
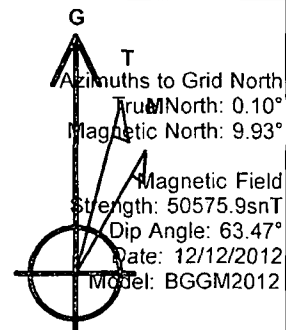


SECTION DETAILS

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	320.0	0.00	0.00	320.0	0.0	0.0	0.00	0.00	0.0	
3	1143.5	24.70	162.43	1118.2	-166.6	52.8	3.00	162.43	174.8	
4	3102.4	24.70	162.43	2897.8	-947.1	299.9	0.00	0.00	993.5	
5	3925.8	0.00	0.00	3696.0	-1113.8	352.6	3.00	180.00	1168.3	
6	4525.8	0.00	0.00	4296.0	-1113.8	352.6	0.00	0.00	1168.3	Heaton 1M ICP
7	7153.8	0.00	0.00	6924.0	-1113.8	352.6	0.00	0.00	1168.3	M PCP

FORMATION TOP DETAILS

TVDPPath	MDPath	Formation
825.0	831.1	Ojo Alamo
918.0	928.2	Kirtland
1765.0	1855.4	Fruitland
2323.0	2469.7	Pictured Cliffs
2489.0	2652.4	Lewis
2979.0	3190.8	Mancos
3078.0	3296.5	Huerfano Ben
3411.0	3639.8	Chacra
3984.0	4213.8	Massive Cliff H
4146.0	4375.8	Menefee
4623.0	4852.8	Pt. Lookout
5903.0	6132.8	Upper Gallup
6652.0	6881.8	Greenhorn
6710.0	6939.8	Graneros
6765.0	6994.8	Two Wells
6844.0	7073.8	Paguate
6869.0	7098.8	Upper Cubero



ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Heaton 1M
Company:	ConocoPhillips SJBW	TVD Reference:	RKB @ 5825.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	RKB @ 5825.0usft (Original Well Elev)
Site:	Other Named Wells	North Reference:	Grid
Well:	Heaton 1M	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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
From:	Lat/Long	Easting:	643,887.63 usft
Position Uncertainty:	15.0 usft	Slot Radius:	6-1/8"
		Grid Convergence:	0.29 °

Well:	Heaton 1M		
Well Position	+N/-S	0.0 usft	Northing: 2,131,103.80 usft
	+E/-W	0.0 usft	Easting: 451,982.48 usft
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Ground Level:	5,812.0 usft

Wellbore:	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
	BGGM2012	12/12/2012	9.83
			Dip Angle
			63.47
			Field Strength
			50,576

Design:	Design #1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			162.43

Plan Sections										
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Dogleg Rate	Build Rate	Turn Rate	TFO	Target
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)	(°)	
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
320.0	0.00	0.00	320.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,143.5	24.70	162.43	1,118.2	-166.6	52.8	3.00	3.00	0.00	162.43	
3,102.4	24.70	162.43	2,897.8	-947.1	299.9	0.00	0.00	0.00	0.00	
3,925.8	0.00	0.00	3,696.0	-1,113.8	352.6	3.00	-3.00	0.00	180.00	
4,525.8	0.00	0.00	4,296.0	-1,113.8	352.6	0.00	0.00	0.00	0.00	Heaton 1M ICP
7,153.8	0.00	0.00	6,924.0	-1,113.8	352.6	0.00	0.00	0.00	0.00	Heaton 1M PCP

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Heaton-1M
Company:	ConocoPhillips SIBU	TVD Reference:	RKB @ 5825.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	RKB @ 5825.0usft (Original Well Elev)
Site:	Other Named Wells	North Reference:	Grid
Well:	Heaton-1M	Survey Calculation Method:	Minimum Curvature
Wellbore Design #:	Wellbore #1		
Design #:	Design #1		

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
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
400.0	2.40	162.43	400.0	-1.6	0.5	1.7	3.00	3.00	0.00
500.0	5.40	162.43	499.7	-8.1	2.6	8.5	3.00	3.00	0.00
600.0	8.40	162.43	599.0	-19.5	6.2	20.5	3.00	3.00	0.00
700.0	11.40	162.43	697.5	-35.9	11.4	37.7	3.00	3.00	0.00
800.0	14.40	162.43	795.0	-57.2	18.1	60.0	3.00	3.00	0.00
831.1	15.33	162.43	825.0	-64.8	20.5	68.0	3.00	3.00	0.00
Ojo Alamo									
900.0	17.40	162.43	891.1	-83.3	26.4	87.4	3.00	3.00	0.00
928.2	18.25	162.43	918.0	-91.6	29.0	96.0	3.00	3.00	0.00
Kirtland									
1,000.0	20.40	162.43	985.7	-114.2	36.2	119.8	3.00	3.00	0.00
1,100.0	23.40	162.43	1,078.5	-149.8	47.4	157.1	3.00	3.00	0.00
1,143.5	24.70	162.43	1,118.2	-166.6	52.8	174.8	3.00	3.00	0.00
1,200.0	24.70	162.43	1,169.5	-189.2	59.9	198.4	0.00	0.00	0.00
1,300.0	24.70	162.43	1,260.4	-229.0	72.5	240.2	0.00	0.00	0.00
1,400.0	24.70	162.43	1,351.2	-268.9	85.1	282.0	0.00	0.00	0.00
1,500.0	24.70	162.43	1,442.1	-308.7	97.7	323.8	0.00	0.00	0.00
1,600.0	24.70	162.43	1,532.9	-348.5	110.3	365.6	0.00	0.00	0.00
1,700.0	24.70	162.43	1,623.8	-388.4	123.0	407.4	0.00	0.00	0.00
1,800.0	24.70	162.43	1,714.6	-428.2	135.6	449.2	0.00	0.00	0.00
1,855.4	24.70	162.43	1,765.0	-450.3	142.6	472.3	0.00	0.00	0.00
Fruitland									
1,900.0	24.70	162.43	1,805.5	-468.1	148.2	491.0	0.00	0.00	0.00
2,000.0	24.70	162.43	1,896.3	-507.9	160.8	532.8	0.00	0.00	0.00
2,100.0	24.70	162.43	1,987.2	-547.8	173.4	574.6	0.00	0.00	0.00
2,200.0	24.70	162.43	2,078.0	-587.6	186.0	616.4	0.00	0.00	0.00
2,300.0	24.70	162.43	2,168.9	-627.4	198.6	658.1	0.00	0.00	0.00
2,400.0	24.70	162.43	2,259.7	-667.3	211.3	699.9	0.00	0.00	0.00
2,469.7	24.70	162.43	2,323.0	-695.0	220.0	729.0	0.00	0.00	0.00
Pictured Cliffs									
2,500.0	24.70	162.43	2,350.6	-707.1	223.9	741.7	0.00	0.00	0.00
2,600.0	24.70	162.43	2,441.4	-747.0	236.5	783.5	0.00	0.00	0.00
2,652.4	24.70	162.43	2,489.0	-767.8	243.1	805.4	0.00	0.00	0.00
Lewis									
2,700.0	24.70	162.43	2,532.3	-786.8	249.1	825.3	0.00	0.00	0.00
2,800.0	24.70	162.43	2,623.1	-826.7	261.7	867.1	0.00	0.00	0.00
2,900.0	24.70	162.43	2,714.0	-866.5	274.3	908.9	0.00	0.00	0.00
3,000.0	24.70	162.43	2,804.8	-906.4	286.9	950.7	0.00	0.00	0.00
3,100.0	24.70	162.43	2,895.7	-946.2	299.6	992.5	0.00	0.00	0.00
3,102.4	24.70	162.43	2,897.8	-947.1	299.9	993.5	0.00	0.00	0.00
3,190.8	22.05	162.43	2,979.0	-980.6	310.5	1,028.6	3.00	-3.00	0.00
Mancos									
3,200.0	21.78	162.43	2,987.5	-983.9	311.5	1,032.0	3.00	-3.00	0.00
3,296.5	18.88	162.43	3,078.0	-1,015.8	321.6	1,065.5	3.00	-3.00	0.00
Huerfano Bentonite									
3,300.0	18.78	162.43	3,081.3	-1,016.9	321.9	1,066.6	3.00	-3.00	0.00
3,400.0	15.78	162.43	3,176.8	-1,045.2	330.9	1,096.3	3.00	-3.00	0.00
3,500.0	12.78	162.43	3,273.7	-1,068.7	338.3	1,121.0	3.00	-3.00	0.00

ConocoPhillips

Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Heaton 1M
Company:	ConocoPhillips SJB	TVD Reference:	RKB @ 5825.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	RKB @ 5825.0usft (Original Well Elev)
Site:	Other Named Wells	North Reference:	Grid
Well:	Heaton 1M	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)	
3,600.0	9.78	162.43	3,371.7	-1,087.4	344.2	1,140.5	3.00	-3.00	0.00	
3,639.8	8.58	162.43	3,411.0	-1,093.4	346.2	1,146.9	3.00	-3.00	0.00	
Chacra										
3,700.0	6.78	162.43	3,470.7	-1,101.1	348.6	1,154.9	3.00	-3.00	0.00	
3,800.0	3.78	162.43	3,570.3	-1,109.8	351.4	1,164.1	3.00	-3.00	0.00	
3,900.0	0.78	162.43	3,670.2	-1,113.6	352.6	1,168.1	3.00	-3.00	0.00	
3,925.8	0.00	0.00	3,696.0	-1,113.8	352.6	1,168.3	3.00	-3.00	0.00	
4,000.0	0.00	0.00	3,770.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
4,100.0	0.00	0.00	3,870.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
4,200.0	0.00	0.00	3,970.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
4,213.8	0.00	0.00	3,984.0	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
Massive Cliff House										
4,300.0	0.00	0.00	4,070.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
4,375.8	0.00	0.00	4,146.0	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
Menefee										
4,400.0	0.00	0.00	4,170.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
4,500.0	0.00	0.00	4,270.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
4,525.8	0.00	0.00	4,296.0	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
4,600.0	0.00	0.00	4,370.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
4,700.0	0.00	0.00	4,470.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
4,800.0	0.00	0.00	4,570.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
4,852.8	0.00	0.00	4,623.0	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
Pl Lookout										
4,900.0	0.00	0.00	4,670.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
5,000.0	0.00	0.00	4,770.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
5,100.0	0.00	0.00	4,870.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
5,200.0	0.00	0.00	4,970.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
5,300.0	0.00	0.00	5,070.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
5,400.0	0.00	0.00	5,170.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
5,500.0	0.00	0.00	5,270.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
5,600.0	0.00	0.00	5,370.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
5,700.0	0.00	0.00	5,470.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
5,800.0	0.00	0.00	5,570.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
5,900.0	0.00	0.00	5,670.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
6,000.0	0.00	0.00	5,770.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
6,100.0	0.00	0.00	5,870.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
6,132.8	0.00	0.00	5,903.0	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
Upper Gallup										
6,200.0	0.00	0.00	5,970.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
6,300.0	0.00	0.00	6,070.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
6,400.0	0.00	0.00	6,170.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
6,500.0	0.00	0.00	6,270.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
6,600.0	0.00	0.00	6,370.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
6,700.0	0.00	0.00	6,470.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
6,800.0	0.00	0.00	6,570.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
6,881.8	0.00	0.00	6,652.0	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
Greenhorn										
6,900.0	0.00	0.00	6,670.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
6,939.8	0.00	0.00	6,710.0	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
Gráneros										
6,994.8	0.00	0.00	6,765.0	-1,113.8	352.6	1,168.3	0.00	0.00	0.00	
Two Wells										

ConocoPhillips Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Heaton 1M
Company:	ConocoPhillips SJBW	TVD Reference:	RKB @ 5825.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	RKB @ 5825.0usft (Original Well Elev)
Site:	Other Named Wells	North Reference:	Grid
Well:	Heaton 1M	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Design #1		

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)
7,000.0	0.00	0.00	6,770.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00
7,073.8	0.00	0.00	6,844.0	-1,113.8	352.6	1,168.3	0.00	0.00	0.00
Paguate									
7,098.8	0.00	0.00	6,869.0	-1,113.8	352.6	1,168.3	0.00	0.00	0.00
Upper Cubero									
7,100.0	0.00	0.00	6,870.2	-1,113.8	352.6	1,168.3	0.00	0.00	0.00
7,153.8	0.00	0.00	6,924.0	-1,113.8	352.6	1,168.3	0.00	0.00	0.00

Targets									
Target Name	hit/miss target	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude Longitude
Heaton 1M ICP	- plan hits target center	0.00	0.00	4,296.0	-1,113.8	352.6	2,129,990.11	452,335.07	36° 51' 12.738 N 107° 59' 46.496 W
- Point									
Heaton 1M PCP	- plan hits target center	0.00	0.00	6,924.0	-1,113.8	352.6	2,129,990.11	452,335.07	36° 51' 12.738 N 107° 59' 46.496 W
- Point									

Formations									
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)				
3,296.5	3,078.0	Huerfano Bentonite		0.00					
6,939.8	6,710.0	Graneros		0.00					
2,652.4	2,489.0	Lewis		0.00					
6,132.8	5,903.0	Upper Gallup		0.00					
6,881.8	6,652.0	Greenhorn		0.00					
928.2	918.0	Kirtland		0.00					
831.1	825.0	Ojo Alamo		0.00					
3,639.8	3,411.0	Chacra		0.00					
2,469.7	2,323.0	Pictured Cliffs		0.00					
3,190.8	2,979.0	Mancos		0.00					
4,213.8	3,984.0	Massive Cliff House		0.00					
4,375.8	4,146.0	Menefee		0.00					
7,073.8	6,844.0	Paguate		0.00					
7,098.8	6,869.0	Upper Cubero		0.00					
4,852.8	4,623.0	Pt. Lookout		0.00					
1,855.4	1,765.0	Fruitland		0.00					
6,994.8	6,765.0	Two Wells		0.00					

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

HEATON 1M

DEVELOPMENT

Lease:		AFE #: WAN.CDR.1026				AFE \$:	
Field Name: SAN JUAN		Rig: Aztec Rig 730		State: NM	County: SAN JUAN		API #:
Geologist:		Phone:		Geophysicist:		Phone:	
Geoscientist:		Phone:		Prod. Engineer:		Phone:	
Res. Engineer:		Phone:		Proj. Field Lead:		Phone:	
Primary Objective (Zones):							
Zone	Zone Name						
RON	BLANCO MESAVERDE (PRORATED GAS)						
FRR	BASIN DAKOTA (PRORATED GAS)						
Location: Surface Datum Code: NAD 27 Directional:							
Latitude: 36.856596	Longitude: -107.997460	X:	Y:	Section: 33	Range: 011W		
Footage X: 2052 FWL	Footage Y: 2231 FNL	Elevation: 5812 (FT)	Township: 031N				
Tolerance:							
Location: Bottom Hole Datum Code: NAD 27 Directional:							
Latitude: 36.853538	Longitude: -107.996249	X:	Y:	Section: 33	Range: 011W		
Footage X: 2400 FWL	Footage Y: 1930 FSL	Elevation: (FT)	Township: 031N				
Tolerance:							
Location Type: Year Round		Start Date (Est.): 1/1/2013		Completion Date:		Date In Operation:	
Formation Data: Assume KB = 5827 Units = FT							
Formation Call & Casing Points	Depth (TVD in Ft)	SS (Ft)	MD (Ft)	Depletion (Yes/No)	BHP (PSIG)	BHT	Remarks
Surface Casing	202	5625		☐			12-1/4 hole. 200' 9 5/8" 32.3 ppf, H-40, STC casing. Cement with 121 cuft. Circulate cement to surface.
OJO ALAMO	827	5000		☐			
KIRTLAND	920	4907		☐			
FRUITLAND	1767	4060		☐			Possible Gas
PICTURED CLIFFS	2325	3502		☐			
LEWIS	2491	3336		☐			
HUERFANITO BENTONITE	3080	2747		☐			
CHACRA	3413	2414		☐			
MASSIVE CLIFF HOUSE	3986	1841		☐	606		Gas
MENEFEE	4148	1679		☐			
Intermediate Casing	4298	1529		☐		121	8 3/4" Hole. 7", 23 ppf, J-55, LTC Casing. Cement with 968 cuft. Circulate cement to surface.
POINT LOOKOUT	4625	1202		☐			
MANCOS	4981	846		☐			
UPPER GALLUP	5905	-78		☐			
GREENHORN	6654	-827		☐			
GRANEROS	6712	-885		☐			
TWO WELLS	6767	-940		☐	2466		Gas
PAGUATE	6846	-1019		☐			
CUBERO	6871	-1044		☐			Est Bottom perf ~ 6906'
Total Depth	6926	-1099		☐		200	6-1/4" hole, 4-1/2" 11.6 ppf, J-55/L-80, LTC casing. Cement w/ 348 cuft. Circulate cement a minimum of 100' inside the previous casing string.

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

HEATON 1M

DEVELOPMENT

ENCINAL 6926 -1099 ☐ TD ~T/Encinal.

Reference Wells:		
Reference Type	Well Name	Comments

Logging Program:

Intermediate Logs: ☐ Log only if show ☐ GR/ILD ☐ Triple Combo

TD Logs: ☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☐ TDT ☒ Other

Mud log from ~100' above the Upper Gallup to TD. Mud loggers will call final TD.

Additional Information:					
Log Type	Stage	From (Ft)	To (Ft)	Tool Type/Name	Remarks