

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 185024

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 30-045-35457
5. Property Name HEATON		6. Well No. 001B

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
F	33	31N	11W		2262	N	2094	W	SAN JUAN

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
J	33	31N	11W	J	1930	S	1930	E	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 5812
16. Multiple Y	17. Proposed Depth 6906	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	20	4297	956	0
Prod	6.25	4.5	11.6	6906	360	4197

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 & DHC (if applicable) will be submitted after the APD is approved.

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.

Signature: *Dustin J. Busse*
 Printed Name: _____ Hold C104

Title: _____ for Directional Survey

Email Address: _____ and "As Drilled" plat

Date: 5/6/14

Phone: _____

OIL CONSERVATION DIVISION

Charles Perri 5-15-2014

Approved By: _____
Title: SUPERVISOR DISTRICT # 3

Approved Date: _____ Expiration Date: _____

Conditions of Approval Attached

AV

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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- 35457	² Pool Code 71599/72319	³ Pool Name BLANCO BASIN DAKOTA / MESA VERDE
⁴ Property Code 7105	⁵ Property Name HEATON	⁶ Well Number 1B
⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP	⁹ Elevation 5812

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	II W		2262	NORTH	2094	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
J	33	31 N	II W		1930	SOUTH	1930	EAST	SAN JUAN

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

18 N 89°21'51" W 2631.84' USA SF-078097 EULA MARCOTTE ET AL SURFACE LAT: 36.8565141° N LONG: 107.9979407° W NAD 83 LAT: 36°51.39063' N LONG: 107°59.83903' W NAD 27 2094'	2262' SECTION 33 S 89°09'42" W 2488.12' LOT 2 (37.56) LOT 1 (38.05) NOTE: BEARINGS & DISTANCES SHOWN ARE REFERENCED TO THE NEW MEXICO COORDINATE SYSTEM, WEST ZONE, NAD 83. USA SF-078097 5329.78'	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. <i>Arleen Kellywood</i> 1-3-12 Signature Date Arleen Kellywood Printed Name arleen.r.kellywood@conocophillips.com E-mail Address
2627.88' N 00°16'06" W N 00°12'53" W N 89°34'34" W 2609.99' G.N.=GRID NORTH T.N.=TRUE NORTH CONVERGENCE AT SURFACE LOCATION LEGEND: ○ = SURFACE LOCATION ● = BOTTOM HOLE LOCATION ⊙ = FOUND 1953 B.L.M. BRASS CAP ⊙ = FOUND 1/2" REBAR IN STONE MOUND ▣ = POSITION CALCULATED FROM WITNESS CORNER	1930' BOTTOM HOLE LAT: 36.8535271° N LONG: 107.9939580° W NAD 83 LAT: 36°51.21142' N LONG: 107°59.60007' W NAD 27 2611.59' WES OLIVER ET UX N 89°31'46" W	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 <i>Marshall W. Linden</i> MARSHALL W. LINDEEN NEW MEXICO 17078 PROFESSIONAL SURVEYOR 17078 Certificate Number

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**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 185024

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 #001B
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OCD Reviewer	Condition
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Hold C104

for Directional Survey
and "As Drilled" plat

*Note: #1B is located north of
Chama line; wellbore NEEDS to
move ~ 1050 ft. to south to be
within 660 foot setback.*

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Form APD Com

Permit 11

PERMIT COMMENTS

Operator Name and Address: BURLINGTON RESOURCES OIL & GAS COMPANY LP [14538]	API Number:
	Well: HEATON #001B

Created By	Comment	Comment Date
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OIL CONS. DIV DIST. 3

MAY 14 2014

ConocoPhillips SJB

San Juan Basin - New Mexico West Wells

Other Named Wells

Heaton 1B

Wellbore #1

Plan: APD plan

Standard Planning Report

12 December, 2012

REFERENCE INFORMATION

RKB @ 5827.0usft (Original Well Elev)
Ground Elevation 5812.0
Reference Lat: 36° 51' 23.438 N
Reference Long: 107° 59' 50.342 W

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

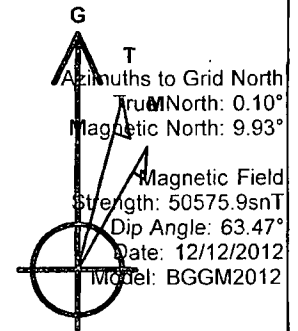


SECTION DETAILS

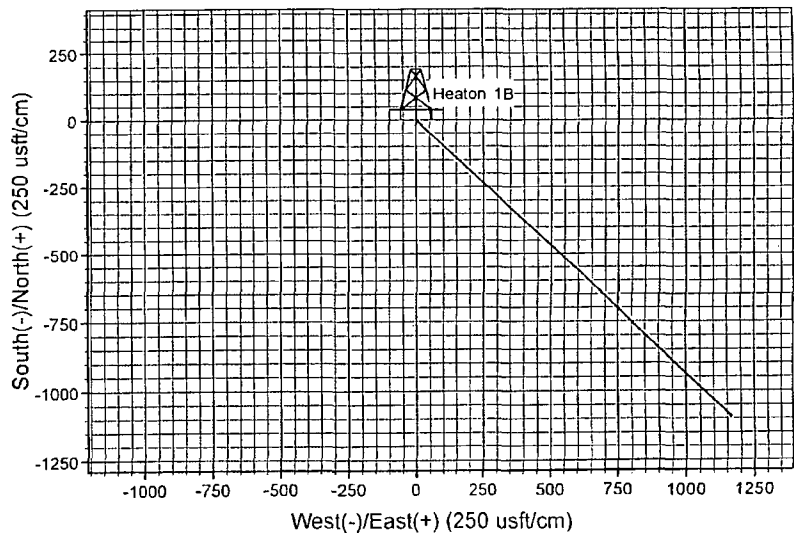
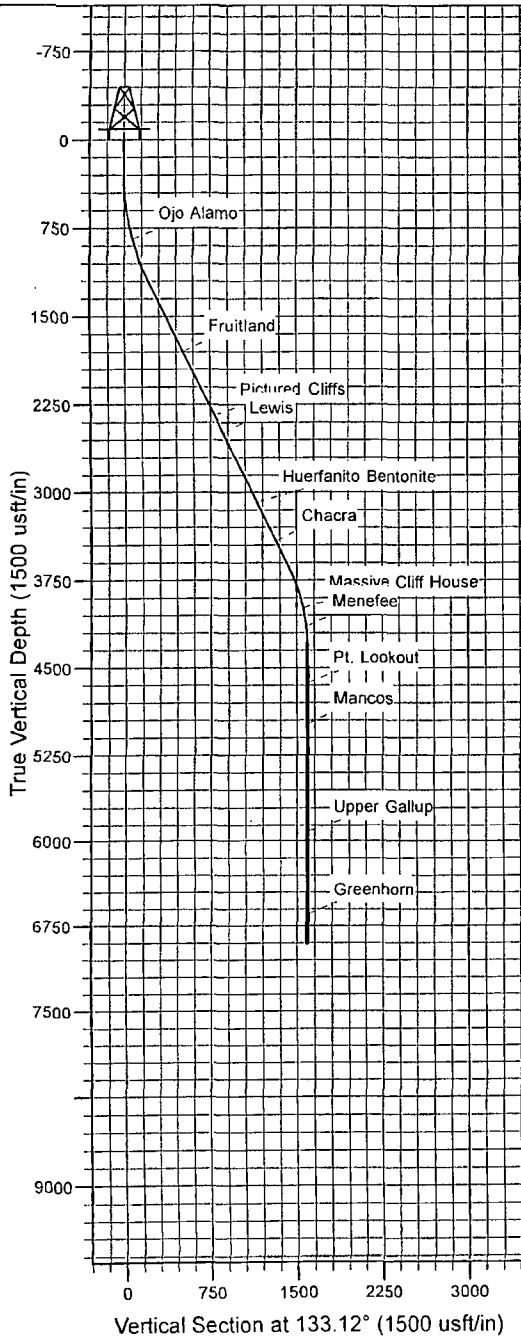
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0	
2	320.0	0.00	0.00	320.0	0.0	0.0	0.00	0.00	0.0	
3	1205.5	26.56	133.12	1174.1	-137.8	147.2	3.00	133.12	201.6	
4	3980.8	26.56	133.12	3656.4	-986.1	1053.1	0.00	0.00	1442.7	
5	4644.9	0.00	0.00	4297.0	-1089.5	1163.5	4.00	180.00	1593.9	Heaton 1B ICP
6	7253.9	0.00	0.00	6906.0	-1089.5	1163.5	0.00	0.00	1593.9	Heaton 1B PCP

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
843.0	849.8	Ojo Alamo
930.0	940.9	Kirtland
1798.0	1903.0	Fruitland
2339.0	2507.9	Pictured Cliffs
2496.0	2683.4	Lewis
3081.0	3337.4	Huerfanito Ben
3419.0	3715.3	Chacra
3981.0	4326.3	Massive Cliff H
4147.0	4494.6	Menefee
4631.0	4978.9	Pt. Lookout
4982.0	5329.9	Mancos
5908.0	6255.9	Upper Gallup
6647.0	6994.9	Greenhorn
6706.0	7053.9	Graneros
6760.0	7107.9	Two Wells
6837.0	7184.9	Paguate
6876.0	7223.9	Upper Cubero



RCVD FEB 7 '13
OIL CONS. DIV.
DIST. 3



30-045 35457 on line

ConocoPhillips Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Heaton 1B
Company:	ConocoPhillips SJB	TVD Reference:	RKB @ 5827.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	RKB @ 5827.0usft (Original Well Elev)
Site:	Other Named Wells	North Reference:	Grid
Well:	Heaton 1B	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	APD plan		

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"
		Latitude:	36° 47' 33.793 N
		Longitude:	107° 20' 30.932 W
		Grid Convergence:	0.29 °

Well	Heaton 1B		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	usft
		Latitude:	36° 51' 23.438 N
		Longitude:	107° 59' 50.342 W
		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	APD plan		
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
			133.12

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	
320.0	0.00	0.00	320.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,205.5	26.56	133.12	1,174.1	-137.8	147.2	3.00	3.00	0.00	133.12	
3,980.8	26.56	133.12	3,656.4	-986.1	1,053.1	0.00	0.00	0.00	0.00	
4,644.9	0.00	0.00	4,297.0	-1,089.5	1,163.5	4.00	-4.00	0.00	180.00	Heaton 1B ICP
7,253.9	0.00	0.00	6,906.0	-1,089.5	1,163.5	0.00	0.00	0.00	0.00	Heaton 1B PCP

ConocoPhillips Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Heaton 1B
Company:	ConocoPhillips SJB	TVD Reference:	RKB @ 5827.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	RKB @ 5827.0usft (Original Well Elev)
Site:	Other Named Wells	North Reference:	Grid
Well:	Heaton 1B	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	APD plan		

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	133.12	400.0	-1.1	1.2	1.7	3.00	3.00	0.00
500.0	5.40	133.12	499.7	-5.8	6.2	8.5	3.00	3.00	0.00
600.0	8.40	133.12	599.0	-14.0	15.0	20.5	3.00	3.00	0.00
700.0	11.40	133.12	697.5	-25.8	27.5	37.7	3.00	3.00	0.00
800.0	14.40	133.12	795.0	-41.0	43.8	60.0	3.00	3.00	0.00
849.8	15.89	133.12	843.0	-49.9	53.3	73.0	3.00	3.00	0.00
Ojo Alamo									
900.0	17.40	133.12	891.1	-59.7	63.8	87.4	3.00	3.00	0.00
940.9	18.63	133.12	930.0	-68.4	73.0	100.0	3.00	3.00	0.00
Kirtland									
1,000.0	20.40	133.12	985.7	-81.9	87.4	119.8	3.00	3.00	0.00
1,100.0	23.40	133.12	1,078.5	-107.4	114.7	157.1	3.00	3.00	0.00
1,200.0	26.40	133.12	1,169.2	-136.1	145.4	199.2	3.00	3.00	0.00
1,205.5	26.56	133.12	1,174.1	-137.8	147.2	201.6	3.00	3.00	0.00
1,300.0	26.56	133.12	1,258.6	-166.7	178.0	243.9	0.00	0.00	0.00
1,400.0	26.56	133.12	1,348.1	-197.3	210.7	288.6	0.00	0.00	0.00
1,500.0	26.56	133.12	1,437.5	-227.8	243.3	333.3	0.00	0.00	0.00
1,600.0	26.56	133.12	1,527.0	-258.4	276.0	378.0	0.00	0.00	0.00
1,700.0	26.56	133.12	1,616.4	-289.0	308.6	422.8	0.00	0.00	0.00
1,800.0	26.56	133.12	1,705.9	-319.5	341.2	467.5	0.00	0.00	0.00
1,900.0	26.56	133.12	1,795.3	-350.1	373.9	512.2	0.00	0.00	0.00
1,903.0	26.56	133.12	1,798.0	-351.0	374.9	513.6	0.00	0.00	0.00
Fruitland									
2,000.0	26.56	133.12	1,884.7	-380.7	406.5	556.9	0.00	0.00	0.00
2,100.0	26.56	133.12	1,974.2	-411.2	439.2	601.6	0.00	0.00	0.00
2,200.0	26.56	133.12	2,063.6	-441.8	471.8	646.4	0.00	0.00	0.00
2,300.0	26.56	133.12	2,153.1	-472.4	504.5	691.1	0.00	0.00	0.00
2,400.0	26.56	133.12	2,242.5	-502.9	537.1	735.8	0.00	0.00	0.00
2,500.0	26.56	133.12	2,332.0	-533.5	569.7	780.5	0.00	0.00	0.00
2,507.9	26.56	133.12	2,339.0	-535.9	572.3	784.0	0.00	0.00	0.00
Pictured Cliffs									
2,600.0	26.56	133.12	2,421.4	-564.1	602.4	825.2	0.00	0.00	0.00
2,683.4	26.56	133.12	2,496.0	-589.6	629.6	862.5	0.00	0.00	0.00
Lewis									
2,700.0	26.56	133.12	2,510.8	-594.6	635.0	870.0	0.00	0.00	0.00
2,800.0	26.56	133.12	2,600.3	-625.2	667.7	914.7	0.00	0.00	0.00
2,900.0	26.56	133.12	2,689.7	-655.8	700.3	959.4	0.00	0.00	0.00
3,000.0	26.56	133.12	2,779.2	-686.3	733.0	1,004.1	0.00	0.00	0.00
3,100.0	26.56	133.12	2,868.6	-716.9	765.6	1,048.8	0.00	0.00	0.00
3,200.0	26.56	133.12	2,958.1	-747.5	798.2	1,093.6	0.00	0.00	0.00
3,300.0	26.56	133.12	3,047.5	-778.0	830.9	1,138.3	0.00	0.00	0.00
3,337.4	26.56	133.12	3,081.0	-789.5	843.1	1,155.0	0.00	0.00	0.00
Huerfano Bentonite									
3,400.0	26.56	133.12	3,137.0	-808.6	863.5	1,183.0	0.00	0.00	0.00
3,500.0	26.56	133.12	3,226.4	-839.2	896.2	1,227.7	0.00	0.00	0.00
3,600.0	26.56	133.12	3,315.8	-869.7	928.8	1,272.4	0.00	0.00	0.00
3,700.0	26.56	133.12	3,405.3	-900.3	961.5	1,317.2	0.00	0.00	0.00
3,715.3	26.56	133.12	3,419.0	-905.0	966.5	1,324.0	0.00	0.00	0.00

ConocoPhillips Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Heaton 1B
Company:	ConocoPhillips SJB	TVD Reference:	RKB @ 5827.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	RKB @ 5827.0usft (Original Well Elev)
Site:	Other Named Wells	North Reference:	Grid
Well:	Heaton 1B	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	APD plan		

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)
Chacra									
3,800.0	26.56	133.12	3,494.7	-930.9	994.1	1,361.9	0.00	0.00	0.00
3,900.0	26.56	133.12	3,584.2	-961.4	1,026.7	1,406.6	0.00	0.00	0.00
3,980.8	26.56	133.12	3,656.4	-986.1	1,053.1	1,442.7	0.00	0.00	0.00
4,000.0	25.80	133.12	3,673.7	-991.9	1,059.3	1,451.2	4.00	-4.00	0.00
4,100.0	21.80	133.12	3,765.2	-1,019.5	1,089.7	1,491.5	4.00	-4.00	0.00
4,200.0	17.80	133.12	3,859.2	-1,042.6	1,113.5	1,525.4	4.00	-4.00	0.00
4,300.0	13.80	133.12	3,955.4	-1,061.2	1,133.3	1,552.6	4.00	-4.00	0.00
4,326.3	12.74	133.12	3,981.0	-1,065.3	1,137.7	1,558.6	4.00	-4.00	0.00
Massive Cliff House									
4,400.0	9.80	133.12	4,053.3	-1,075.2	1,148.2	1,573.1	4.00	-4.00	0.00
4,494.6	6.01	133.12	4,147.0	-1,084.1	1,157.7	1,586.1	4.00	-4.00	0.00
Menefee									
4,500.0	5.80	133.12	4,152.4	-1,084.5	1,158.1	1,586.6	4.00	-4.00	0.00
4,600.0	1.80	133.12	4,252.1	-1,089.0	1,163.0	1,593.2	4.00	-4.00	0.00
4,644.9	0.00	0.00	4,297.0	-1,089.5	1,163.5	1,593.9	4.00	-4.00	0.00
4,700.0	0.00	0.00	4,352.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
4,800.0	0.00	0.00	4,452.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
4,900.0	0.00	0.00	4,552.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
4,978.9	0.00	0.00	4,631.0	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
Pt. Lookout									
5,000.0	0.00	0.00	4,652.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
5,100.0	0.00	0.00	4,752.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
5,200.0	0.00	0.00	4,852.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
5,300.0	0.00	0.00	4,952.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
5,329.9	0.00	0.00	4,982.0	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
Mancos									
5,400.0	0.00	0.00	5,052.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
5,500.0	0.00	0.00	5,152.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
5,600.0	0.00	0.00	5,252.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
5,700.0	0.00	0.00	5,352.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
5,800.0	0.00	0.00	5,452.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
5,900.0	0.00	0.00	5,552.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
6,000.0	0.00	0.00	5,652.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
6,100.0	0.00	0.00	5,752.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
6,200.0	0.00	0.00	5,852.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
6,255.9	0.00	0.00	5,908.0	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
Upper Gallup									
6,300.0	0.00	0.00	5,952.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
6,400.0	0.00	0.00	6,052.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
6,500.0	0.00	0.00	6,152.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
6,600.0	0.00	0.00	6,252.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
6,700.0	0.00	0.00	6,352.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
6,800.0	0.00	0.00	6,452.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
6,900.0	0.00	0.00	6,552.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
6,994.9	0.00	0.00	6,647.0	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
Greenhorn									
7,000.0	0.00	0.00	6,652.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
7,053.9	0.00	0.00	6,706.0	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
Graneros									
7,100.0	0.00	0.00	6,752.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
7,107.9	0.00	0.00	6,760.0	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00

ConocoPhillips Planning Report

Database:	EDM Central Planning	Local Co-ordinate Reference:	Well Heaton 1B
Company:	ConocoPhillips SJB	TVD Reference:	RKB @ 5827.0usft (Original Well Elev)
Project:	San Juan Basin - New Mexico West Wells	MD Reference:	RKB @ 5827.0usft (Original Well Elev)
Site:	Other Named Wells	North Reference:	Grid
Well:	Heaton 1B	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	APD plan		

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)
Two Wells									
7,184.9	0.00	0.00	6,837.0	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
Paguete									
7,200.0	0.00	0.00	6,852.1	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
7,223.9	0.00	0.00	6,876.0	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00
Upper Cubero									
7,253.9	0.00	0.00	6,906.0	-1,089.5	1,163.5	1,593.9	0.00	0.00	0.00

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
Heaton 1B ICP	0.00	0.00	4,297.0	-1,089.5	1,163.5	2,129,983.30	453,187.76	36° 51' 12.685 N	107° 59' 36.004 W
- plan hits target center									
- Point									
Heaton 1B PCP	0.00	0.00	6,906.0	-1,089.5	1,163.5	2,129,983.30	453,187.76	36° 51' 12.685 N	107° 59' 36.004 W
- plan hits target center									
- Point									

Formations							
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)		
3,715.3	3,419.0	Chacra					
6,255.9	5,908.0	Upper Gallup					
3,337.4	3,081.0	Huerfano Bentonite					
4,978.9	4,631.0	Pl. Lookout					
1,903.0	1,798.0	Fruitland					
2,683.4	2,496.0	Lewis					
7,184.9	6,837.0	Paguete					
2,507.9	2,339.0	Pictured Cliffs					
6,994.9	6,647.0	Greenhorn					
940.9	930.0	Kirtland					
7,053.9	6,706.0	Graneros					
5,329.9	4,982.0	Mancos					
7,107.9	6,760.0	Two Wells					
4,326.3	3,981.0	Massive Cliff House					
7,223.9	6,876.0	Upper Cubero					
4,494.6	4,147.0	Menefee					
849.8	843.0	Ojo Alamo					

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

HEATON 1B

30-045-35457

DEVELOPMENT

Lease:		AFE #: WAN.CDR.9096				AFE \$: 0.00	
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						
FRR	BASIN DAKOTA (PRORATED GAS)						
RON	BLANCO MESAVERDE (PRORATED GAS)						
RCVD FEB 4 '13 OIL CONS. DIV. DIST. 3							
Location: Surface:				Datum Code: NAD 27		Directional:	
Latitude: 36.856511	Longitude: -107.997317	X:	Y:	Section: 33	Range: 011W		
Footage X: 2094 FWL	Footage Y: 2262 FNL	Elevation: 5812	(FT)	Township: 031N			
Tolerance:							
Location: Bottom Hole				Datum Code: NAD 27		Directional:	
Latitude: 36.853524	Longitude: -107.993335	X:	Y:	Section: 33	Range: 011W		
Footage X: 1930 FEL	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	200	5627		☐			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	843	4984		☐			
KIRTLAND	930	4897		☐			
FRUITLAND	1798	4029		☐			Possible Gas
PICTURED CLIFFS	2339	3488		☐	107		
LEWIS	2496	3331		☐			
HUERFANITO BENTONITE	3081	2746		☐			
CHACRA	3419	2408		☐			
MASSIVE CLIFF HOUSE	3981	1846		☐	608		Gas
MENEFEE	4147	1680		☐			Est. Top Perf - 4347 (1480)
Intermediate Casing	4297	1530		☐		146	8 3/4" Hole. 7", 20/23 ppf, J-55, STC/LTC Casing. Cement with 956 cuft. Circulate cement to surface.
POINT LOOKOUT	4631	1196		☐			
MANCOS	4982	845		☐			
UPPER GALLUP	5908	-81		☐			
GREENHORN	6647	-820		☐			
GRANEROS	6706	-879		☐			
TWO WELLS	6760	-933		☐	2448		Gas; Est. 8tm Perf - 6866 (- 1039) based on offset wells
PAGUATE	6837	-1010		☐			Estimated bottom perf is 30' below top of Paguate - will only complete Two Wells and Paguate.

WAT

PROJECT PROPOSAL - New Drill / Sidetrack

San Juan Business Unit

HEATON 1B

DEVELOPMENT

UPPER CUBERO	6876	-1049	☐		TD is 30' below top of Cubero - 3 of 4 offsets only completed same interval - 4th well attempted Encinal & sqzd - best sand in Cubero has minimal distance to Encinal.
Total Depth	6906	-1079	☐	199	6-1/4" hole, 4-1/2" 11.6 ppf, L-80, LTC casing. Cement w/ 360 cuft. Circulate cement a minimum of 100' inside the previous casing string.

Reference Wells:		
Reference Type	Well Name	Comments
Production	Heaton Com B 3	31N 11W 33 NE SW NW
Production	Myra Cummins #1	SW33 31-11
Production	Heaton Com LS 9A	31N 11W 32 SW NE SE
Production	Heaton Com B 3E	NE33 31-11

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

TD Logs:	☐ Triple Combo ☐ Dipmeter ☐ RFT ☐ Sonic ☐ VSP ☐ TDT ☒ Other
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Cased Hole GR / CBL

Mudlog from 100' above top of GLLP to TD - mudlogger will call TD.

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