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Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
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Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, N.M. 87505
Phone: (505) 476-3480 Fax: (505) 476-3482

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 30045-353104	² Pool Code 71599/72319	³ Pool Name DAKOTA / MESA VERDE
⁴ Property Code 31748	⁵ Property Name HEATON LS	⁶ Well Number 3M
⁷ GRID No. 217817	⁸ Operator Name CONOCOPHILLIPS COMPANY	⁹ Elevation 5822

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
D	32	31 N	11 W		721	NORTH	1221	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
D	32	31 N	11 W		873	NORTH	1213	WEST	SAN JUAN

¹² Dedicated Acres 320 (N/2) DK 320 (W/2) MV	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°51'09" W 2553.38' SURFACE LAT: 36.8608038° N LONG: 108.0184927° W NAD 83 LAT: 36°51.64803' N LONG: 108°01.07211' W NAD 27 1221' 1213' S 4°08'21" W 152.40' FEE BOTTOM HOLE LAT: 36.8603862° N LONG: 108.0185293° W NAD 83 LAT: 36°51.62298' N LONG: 108°01.07430' W NAD 27 USA-SF 078097 STATE OF NEW MEXICO E-397-2 SECTION 32 BEARINGS & DISTANCES SHOWN ARE REFERENCED TO THE NEW MEXICO COORDINATE SYSTEM, WEST ZONE, NAD 83, UNLESS OTHERWISE NOTED. LEGEND: ○ = SURFACE LOCATION ● = BOTTOM HOLE LOCATION ⊙ = FOUND 1953 B.L.M. BRASS CAP G.N.=GRID NORTH T.N.=TRUE NORTH CONVERGENCE AT SURFACE LOCATION USA-SF 078097 S 89°59'28" W 2657.52' N 89°33'34" W 2584.75'	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. Denise Journey 8-1-12 Signature Date DENISE JOURNEY Printed Name Denise.Journey@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. 7/29/12 Date of Survey Signature WILLIAM W. LINDEEN Professional Surveyor 17078 Certificate Number
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*Please complete all boxes before filing (1-2-447)

AV



ConocoPhillips

**SJB (NM West)
SEC 32-T31N-R11W
Heaton LS 3M**

OH

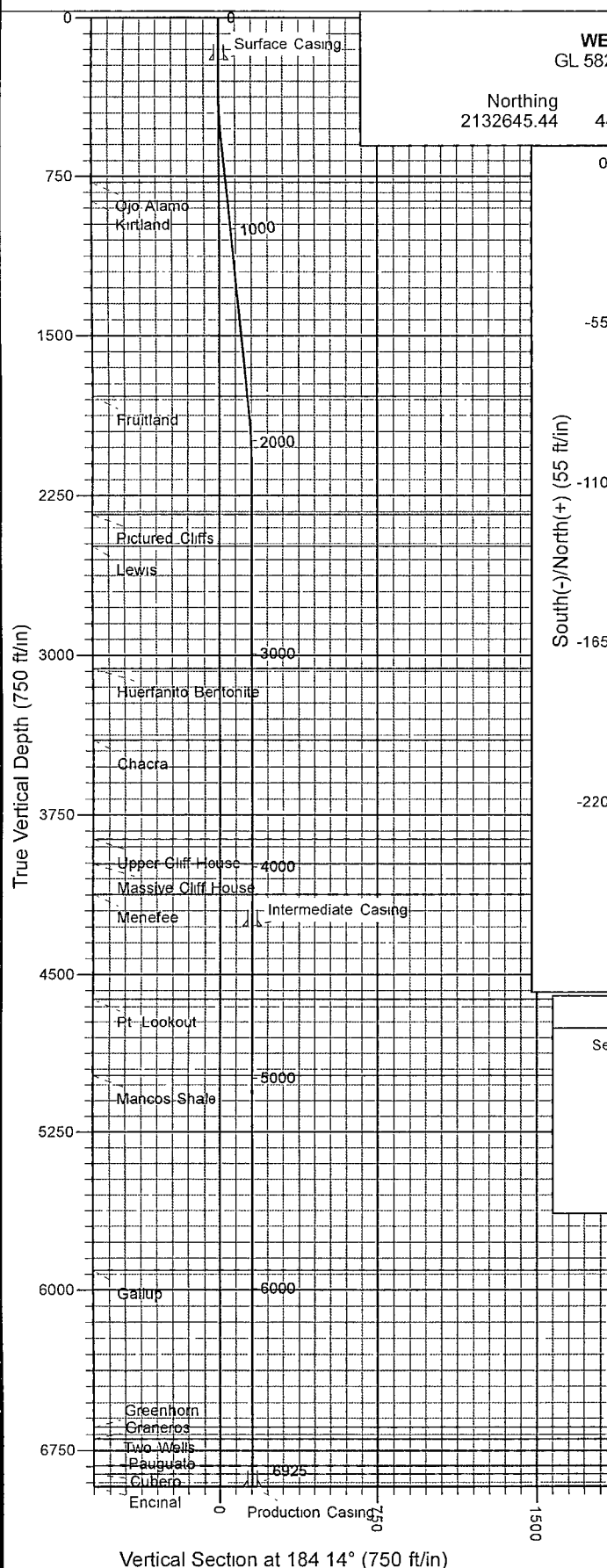
Plan: Plan 3

Standard Planning Report

31 July, 2012



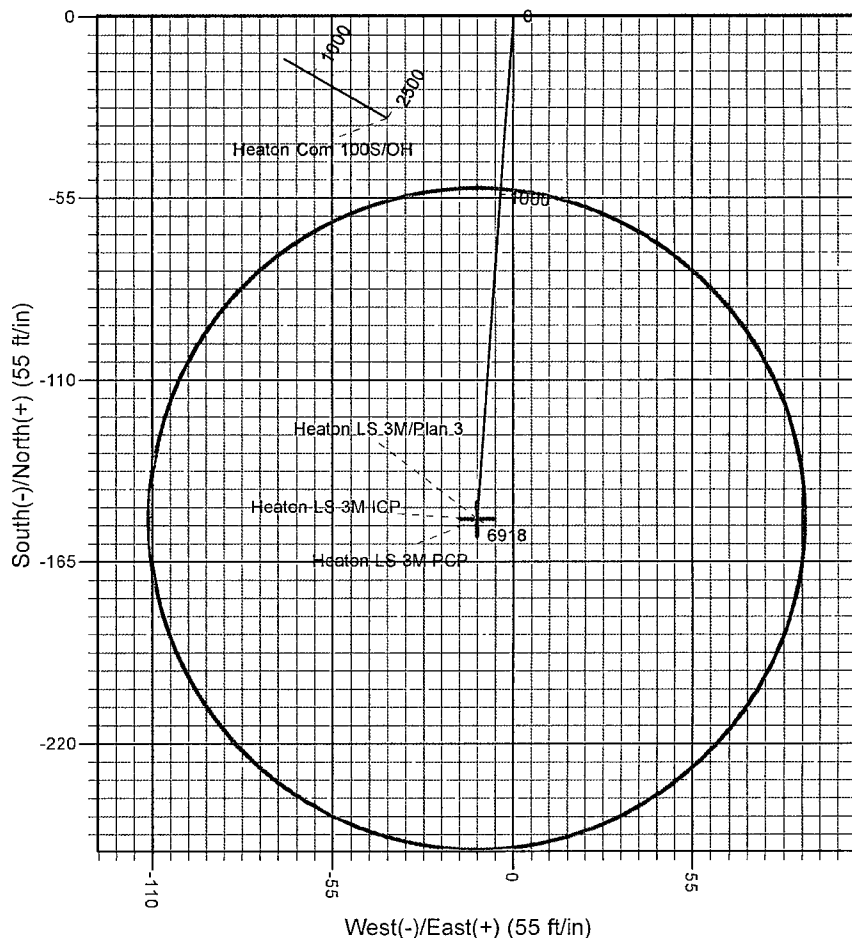
Scientific Drilling



WELL DETAILS: Heaton LS 3M
 GL 5822' & KB 15' @ 5837.0ft (AWS 730)
 Ground Level: 5822 0

Northing 2132645.44 Easting 446014.79 Latitude 36° 51' 38.882 N Longitude 108° 1' 4.327 W

Compass Rose:
 T M Azimuths to True North
 Magnetic North 9.88°
 Magnetic Field
 Strength 50620 1snT
 Dip Angle 63.48°
 Date 2012/07/30
 Model BGGM2011



SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	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	608.0	5.76	184.14	607.5	-14.4	-1.0	2.00	184.14	14.5	
4	1886.3	5.76	184.14	1879.3	-142.4	-10.3	0.00	0.00	142.8	
5	2078.3	0.00	0.00	2071.0	-152.0	-11.0	3.00	180.00	152.4	
6	4278.3	0.00	0.00	4271.0	-152.0	-11.0	0.00	0.00	152.4	Heaton LS 3M ICP
7	6925.3	0.00	0.00	6918.0	-152.0	-11.0	0.00	0.00	152.4	Heaton LS 3M PCP

Date: 13.37, July 31 2012

REFERENCE INFORMATION

Co-ordinate (N/E) Reference: Well Heaton LS 3M, True North
 Vertical (TVD) Reference: GL 5822' & KB 15' @ 5837.0ft (AWS 730)
 Section (VS) Reference: Slot - (0.0N, 0.0E)
 Measured Depth Reference: GL 5822' & KB 15' @ 5837.0ft (AWS 730)
 Calculation Method: Minimum Curvature

PROJECT DETAILS: SJB (NM West)

Geodetic System: US State Plane 1927 (Exact solution)
 Datum: NAD 1927 (NADCON CONUS)
 Ellipsoid: Clarke 1866
 Zone: New Mexico West 3003
 System Datum: Mean Sea Level

Database:	EDM 2003 21 Single User Db	Local Co-ordinate Reference:	Well, Heaton LS 3M
Company:	ConocoPhillips	TVD Reference:	GL 5822' & KB 15' @ 5837.0ft (AWS 730)
Project:	SJB (NM West)	MD Reference:	GL 5822' & KB 15' @ 5837.0ft (AWS 730)
Site:	SEC 32-T31N-R11W	North Reference:	True
Well:	Heaton LS 3M	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 3		

Project	SJB (NM West), San Juan County, New Mexico, S-Type MV/DK Wells		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico West 3003		Using geodetic scale factor

Site	SEC 32-T31N-R11W		
Site Position:		Northing:	2,132,781.67 ft
From:	Lat/Long	Easting:	448,526.24 ft
Position Uncertainty:	0.0 ft	Slot Radius:	"
		Latitude:	36° 51' 40.276 N
		Longitude:	108° 0' 33.425 W
		Grid Convergence:	-0.11 °

Well	Heaton LS 3M, 721' FNL-1221' FVL		
Well Position	+N/-S	-141.1 ft	Northing: 2,132,645.44 ft
	+E/-W	-2,511.4 ft	Easting: 446,014.79 ft
Position Uncertainty	0.0 ft	Wellhead Elevation:	ft
		Latitude:	36° 51' 38.882 N
		Longitude:	108° 1' 4.327 W
		Ground Level:	5,822.0 ft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	BGGM2011	2012/07/30	9.88
			Dip Angle
			63.48
			Field Strength
			50,620 nT

Design	Plan 3		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.0	0.0	0.0
			Direction
			184.14

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	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	
608.0	5.76	184.14	607.5	-14.4	-1.0	2.00	2.00	0.00	184.14	
1,886.3	5.76	184.14	1,879.3	-142.4	-10.3	0.00	0.00	0.00	0.00	
2,078.3	0.00	0.00	2,071.0	-152.0	-11.0	3.00	-3.00	0.00	180.00	
4,278.3	0.00	0.00	4,271.0	-152.0	-11.0	0.00	0.00	0.00	0.00	Heaton LS 3M ICP
6,925.3	0.00	0.00	6,918.0	-152.0	-11.0	0.00	0.00	0.00	0.00	Heaton LS 3M PCP

Database:	EDM 2003 21 Single User Db	Local Co-ordinate Reference:	Well Heaton LS 3M
Company:	ConocoPhillips	TVD Reference:	GL 5822' & KB 15' @ 5837.0ft (AWS 730)
Project:	SJB (NM West)	MD Reference:	GL 5822' & KB 15' @ 5837.0ft (AWS 730)
Site:	SEC 32-T31N-R11W	North Reference:	True
Well:	Heaton LS 3M	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 3		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
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
Surface Casing									
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	1.60	184.14	400.0	-1.1	-0.1	1.1	2.00	2.00	0.00
500.0	3.60	184.14	499.9	-5.6	-0.4	5.7	2.00	2.00	0.00
600.0	5.60	184.14	599.6	-13.6	-1.0	13.7	2.00	2.00	0.00
608.0	5.76	184.14	607.5	-14.4	-1.0	14.5	2.00	2.00	0.00
700.0	5.76	184.14	699.1	-23.6	-1.7	23.7	0.00	0.00	0.00
779.4	5.76	184.14	778.0	-31.6	-2.3	31.7	0.00	0.00	0.00
Ojo Alamo									
800.0	5.76	184.14	798.5	-33.6	-2.4	33.7	0.00	0.00	0.00
867.8	5.76	184.14	866.0	-40.4	-2.9	40.5	0.00	0.00	0.00
Kirtland									
900.0	5.76	184.14	898.0	-43.7	-3.2	43.8	0.00	0.00	0.00
1,000.0	5.76	184.14	997.5	-53.7	-3.9	53.8	0.00	0.00	0.00
1,100.0	5.76	184.14	1,097.0	-63.7	-4.6	63.8	0.00	0.00	0.00
1,200.0	5.76	184.14	1,196.5	-73.7	-5.3	73.9	0.00	0.00	0.00
1,300.0	5.76	184.14	1,296.0	-83.7	-6.1	83.9	0.00	0.00	0.00
1,400.0	5.76	184.14	1,395.5	-93.7	-6.8	94.0	0.00	0.00	0.00
1,500.0	5.76	184.14	1,495.0	-103.7	-7.5	104.0	0.00	0.00	0.00
1,600.0	5.76	184.14	1,594.5	-113.7	-8.2	114.0	0.00	0.00	0.00
1,700.0	5.76	184.14	1,694.0	-123.7	-9.0	124.1	0.00	0.00	0.00
1,790.5	5.76	184.14	1,784.0	-132.8	-9.6	133.1	0.00	0.00	0.00
Fruitland									
1,800.0	5.76	184.14	1,793.5	-133.7	-9.7	134.1	0.00	0.00	0.00
1,886.3	5.76	184.14	1,879.3	-142.4	-10.3	142.8	0.00	0.00	0.00
1,900.0	5.35	184.14	1,893.0	-143.7	-10.4	144.1	3.00	-3.00	0.00
2,000.0	2.35	184.14	1,992.8	-150.4	-10.9	150.8	3.00	-3.00	0.00
2,078.3	0.00	0.00	2,071.0	-152.0	-11.0	152.4	3.00	-3.00	0.00
2,100.0	0.00	0.00	2,092.7	-152.0	-11.0	152.4	0.00	0.00	0.00
2,200.0	0.00	0.00	2,192.7	-152.0	-11.0	152.4	0.00	0.00	0.00
2,300.0	0.00	0.00	2,292.7	-152.0	-11.0	152.4	0.00	0.00	0.00
2,345.3	0.00	0.00	2,338.0	-152.0	-11.0	152.4	0.00	0.00	0.00
Pictured Cliffs									
2,400.0	0.00	0.00	2,392.7	-152.0	-11.0	152.4	0.00	0.00	0.00
2,494.3	0.00	0.00	2,487.0	-152.0	-11.0	152.4	0.00	0.00	0.00
Lewis									
2,500.0	0.00	0.00	2,492.7	-152.0	-11.0	152.4	0.00	0.00	0.00
2,600.0	0.00	0.00	2,592.7	-152.0	-11.0	152.4	0.00	0.00	0.00
2,700.0	0.00	0.00	2,692.7	-152.0	-11.0	152.4	0.00	0.00	0.00
2,800.0	0.00	0.00	2,792.7	-152.0	-11.0	152.4	0.00	0.00	0.00
2,900.0	0.00	0.00	2,892.7	-152.0	-11.0	152.4	0.00	0.00	0.00
3,000.0	0.00	0.00	2,992.7	-152.0	-11.0	152.4	0.00	0.00	0.00
3,069.3	0.00	0.00	3,062.0	-152.0	-11.0	152.4	0.00	0.00	0.00
Huerfano Bentonite									
3,100.0	0.00	0.00	3,092.7	-152.0	-11.0	152.4	0.00	0.00	0.00
3,200.0	0.00	0.00	3,192.7	-152.0	-11.0	152.4	0.00	0.00	0.00
3,300.0	0.00	0.00	3,292.7	-152.0	-11.0	152.4	0.00	0.00	0.00
3,400.0	0.00	0.00	3,392.7	-152.0	-11.0	152.4	0.00	0.00	0.00
3,406.3	0.00	0.00	3,399.0	-152.0	-11.0	152.4	0.00	0.00	0.00

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well Heaton LS 3M
Company:	ConocoPhillips	TVD Reference:	GL 5822' & KB 15' @ 5837.0ft (AWS 730)
Project:	SJB (NM West)	MD Reference:	GL 5822' & KB 15' @ 5837.0ft (AWS 730)
Site:	SEC 32-T31N-R11W	North Reference:	True
Well:	Heaton LS 3M	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 3		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
Chacra									
3,500.0	0.00	0.00	3,492.7	-152.0	-11.0	152.4	0.00	0.00	0.00
3,600.0	0.00	0.00	3,592.7	-152.0	-11.0	152.4	0.00	0.00	0.00
3,700.0	0.00	0.00	3,692.7	-152.0	-11.0	152.4	0.00	0.00	0.00
3,800.0	0.00	0.00	3,792.7	-152.0	-11.0	152.4	0.00	0.00	0.00
3,871.3	0.00	0.00	3,864.0	-152.0	-11.0	152.4	0.00	0.00	0.00
Upper Cliff House									
3,900.0	0.00	0.00	3,892.7	-152.0	-11.0	152.4	0.00	0.00	0.00
3,987.3	0.00	0.00	3,980.0	-152.0	-11.0	152.4	0.00	0.00	0.00
Massive Cliff House									
4,000.0	0.00	0.00	3,992.7	-152.0	-11.0	152.4	0.00	0.00	0.00
4,100.0	0.00	0.00	4,092.7	-152.0	-11.0	152.4	0.00	0.00	0.00
4,128.3	0.00	0.00	4,121.0	-152.0	-11.0	152.4	0.00	0.00	0.00
Menefee									
4,200.0	0.00	0.00	4,192.7	-152.0	-11.0	152.4	0.00	0.00	0.00
4,278.3	0.00	0.00	4,271.0	-152.0	-11.0	152.4	0.00	0.00	0.00
Intermediate Casing									
4,300.0	0.00	0.00	4,292.7	-152.0	-11.0	152.4	0.00	0.00	0.00
4,400.0	0.00	0.00	4,392.7	-152.0	-11.0	152.4	0.00	0.00	0.00
4,500.0	0.00	0.00	4,492.7	-152.0	-11.0	152.4	0.00	0.00	0.00
4,600.0	0.00	0.00	4,592.7	-152.0	-11.0	152.4	0.00	0.00	0.00
4,622.3	0.00	0.00	4,615.0	-152.0	-11.0	152.4	0.00	0.00	0.00
Pt. Lookout									
4,700.0	0.00	0.00	4,692.7	-152.0	-11.0	152.4	0.00	0.00	0.00
4,800.0	0.00	0.00	4,792.7	-152.0	-11.0	152.4	0.00	0.00	0.00
4,900.0	0.00	0.00	4,892.7	-152.0	-11.0	152.4	0.00	0.00	0.00
4,986.3	0.00	0.00	4,979.0	-152.0	-11.0	152.4	0.00	0.00	0.00
Mancos Shale									
5,000.0	0.00	0.00	4,992.7	-152.0	-11.0	152.4	0.00	0.00	0.00
5,100.0	0.00	0.00	5,092.7	-152.0	-11.0	152.4	0.00	0.00	0.00
5,200.0	0.00	0.00	5,192.7	-152.0	-11.0	152.4	0.00	0.00	0.00
5,300.0	0.00	0.00	5,292.7	-152.0	-11.0	152.4	0.00	0.00	0.00
5,400.0	0.00	0.00	5,392.7	-152.0	-11.0	152.4	0.00	0.00	0.00
5,500.0	0.00	0.00	5,492.7	-152.0	-11.0	152.4	0.00	0.00	0.00
5,600.0	0.00	0.00	5,592.7	-152.0	-11.0	152.4	0.00	0.00	0.00
5,700.0	0.00	0.00	5,692.7	-152.0	-11.0	152.4	0.00	0.00	0.00
5,800.0	0.00	0.00	5,792.7	-152.0	-11.0	152.4	0.00	0.00	0.00
5,900.0	0.00	0.00	5,892.7	-152.0	-11.0	152.4	0.00	0.00	0.00
5,913.3	0.00	0.00	5,906.0	-152.0	-11.0	152.4	0.00	0.00	0.00
Gallup									
6,000.0	0.00	0.00	5,992.7	-152.0	-11.0	152.4	0.00	0.00	0.00
6,100.0	0.00	0.00	6,092.7	-152.0	-11.0	152.4	0.00	0.00	0.00
6,200.0	0.00	0.00	6,192.7	-152.0	-11.0	152.4	0.00	0.00	0.00
6,300.0	0.00	0.00	6,292.7	-152.0	-11.0	152.4	0.00	0.00	0.00
6,400.0	0.00	0.00	6,392.7	-152.0	-11.0	152.4	0.00	0.00	0.00
6,500.0	0.00	0.00	6,492.7	-152.0	-11.0	152.4	0.00	0.00	0.00
6,600.0	0.00	0.00	6,592.7	-152.0	-11.0	152.4	0.00	0.00	0.00
6,648.3	0.00	0.00	6,641.0	-152.0	-11.0	152.4	0.00	0.00	0.00
Greenhorn									
6,700.0	0.00	0.00	6,692.7	-152.0	-11.0	152.4	0.00	0.00	0.00
6,703.3	0.00	0.00	6,696.0	-152.0	-11.0	152.4	0.00	0.00	0.00
Graneros									
6,759.3	0.00	0.00	6,752.0	-152.0	-11.0	152.4	0.00	0.00	0.00

Database:	EDM 2003.21 Single User Db	Local Co-ordinate Reference:	Well Heaton LS 3M
Company:	ConocoPhillips	TVD Reference:	GL 5822' & KB 15' @ 5837 0ft (AWS 730)
Project:	SJB (NM West)	MD Reference:	GL 5822' & KB 15' @ 5837 0ft (AWS 730)
Site:	SEC 32-T31N-R11W	North Reference:	True
Well:	Heaton LS 3M	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 3		

Planned Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
Two Wells										
6,800 0	0.00	0.00	6,792 7	-152 0	-11.0	152.4	0.00	0.00	0.00	
6,829 3	0.00	0.00	6,822 0	-152 0	-11.0	152.4	0.00	0.00	0.00	
Pauguate										
6,867 3	0.00	0.00	6,860 0	-152 0	-11.0	152.4	0.00	0.00	0.00	
Cubero										
6,900 0	0.00	0.00	6,892 7	-152 0	-11.0	152.4	0.00	0.00	0.00	
6,925 3	0.00	0.00	6,918 0	-152 0	-11.0	152.4	0.00	0.00	0.00	
Encinal - Production Casing										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude	
- hit/miss target										
- Shape										
Heaton LS 3M ICP	0.00	0.00	4,271 0	-152.0	-11.0	2,132,493.47	446,003.50	36° 51' 37.379 N	108° 1' 4.462 W	
- plan hits target center										
- Circle (radius 100.0)										
Heaton LS 3M PCP	0.00	0.00	6,918 0	-152.0	-11.0	2,132,493.47	446,003.50	36° 51' 37.379 N	108° 1' 4.462 W	
- plan hits target center										
- Circle (radius 100.0)										

Casing Points						
Measured Depth (ft)	Vertical Depth (ft)	Name	Casing Diameter (")	Hole Diameter (")		
4,278 3	4,271 0	Intermediate Casing	7	8-3/4		
200 0	200 0	Surface Casing	9-5/8	12-1/4		
6,925 3	6,918.0	Production Casing	4-1/2	6-1/4		

Database:	EDM 2003 21 Single User Db	Local Co-ordinate Reference:	Well Heaton LS 3M
Company:	ConocoPhillips	TVD Reference:	GL 5822' & KB 15' @ 5837 0ft (AWS 730)
Project:	SJB (NM West)	MD Reference:	GL 5822' & KB 15' @ 5837 0ft (AWS 730)
Site:	SEC 32-T31N-R11W	North Reference:	True
Well:	Heaton LS 3M	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan 3		

Formations						
Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
779.4	778.0	Ojo Alamo				
867.8	866.0	Kirtland				
1,790.5	1,784.0	Fruitland				
2,345.3	2,338.0	Pictured Cliffs				
2,494.3	2,487.0	Lewis				
3,069.3	3,062.0	Huerfano Bentonite				
3,406.3	3,399.0	Chacra				
3,871.3	3,864.0	Upper Cliff House				
3,987.3	3,980.0	Massive Cliff House				
4,128.3	4,121.0	Menefee				
4,622.3	4,615.0	Pt Lookout				
4,986.3	4,979.0	Mancos Shale				
5,913.3	5,906.0	Gallup				
6,648.3	6,641.0	Greenhorn				
6,703.3	6,696.0	Graneros				
6,759.3	6,752.0	Two Wells				
6,829.3	6,822.0	Pauguate				
6,867.3	6,860.0	Cubero				
6,925.3	6,918.0	Encinal				