

Submit 3 Copies To Appropriate District
Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Ave., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

Form C-103
Jun 19, 2008

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

WELL API NO. 30-045-35187
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No. FEE
7. Lease Name or Unit Agreement Name HUDSON
8. Well Number 5M
9. OGRID Number 14538
10. Pool name or Wildcat Blanco MV / Basin DK / Basin MC
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 6010' GR

SUNDRY NOTICES AND REPORTS ON WELLS
(DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)

1. Type of Well: Oil Well ☐ Gas Well ☒ Other

2. Name of Operator
Burlington Resources Oil Gas Company LP

3. Address of Operator
P.O. Box 4289, Farmington, NM 87499-4289

4. Well Location
Unit Letter **C** : **893** feet from the **North** line and **1587** feet from the **West** line
Section **17** Township **31N** Range **10W** NMPM **San Juan County**

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

OTHER: ☒ **REVISED C-102 / DRILLING PLAN**

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐ **RCVD OCT 7 '14**

OTHER: ☐

**OIL CONS. DIV.
DIST. 3**

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 1103. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

The subject well was re-surveyed to correct the west section line due to an incorrect original survey of the NW corner. The revised C-102 plat and drilling plan are attached.

Spud Date:

Rig Released Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE *Dollie L. Busse* TITLE Staff Regulatory Technician DATE 10-6-14

Type or print name Dollie L. Busse E-mail address: dollie.l.busse@conocophillips.com PHONE: 505-324-6104

For State Use Only

APPROVED BY: *Charles* TITLE SUPERVISOR DISTRICT # 3 DATE OCT 16 2014
Conditions of Approval (if any): AV

12 (P)

DISTRICT I
1825 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) 334-8178 Fax: (505) 334-8170

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 30-045-35187	² Pool Code 72319 / 71599 / 97232	³ Pool Name BLANCO MESA VERDE / BASIN DAKOTA
⁴ Property Code 7136	⁵ Property Name HUDSON	⁶ Well Number 5M
⁷ GRID No. 14538	⁸ Operator Name BURLINGTON RESOURCES OIL & GAS COMPANY LP	⁹ Elevation 6010

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
C	17	31 N	10 W	LOT 3	893	NORTH	1587	WEST	SAN JUAN

¹¹ Bottom Hole Location If Different From Surface

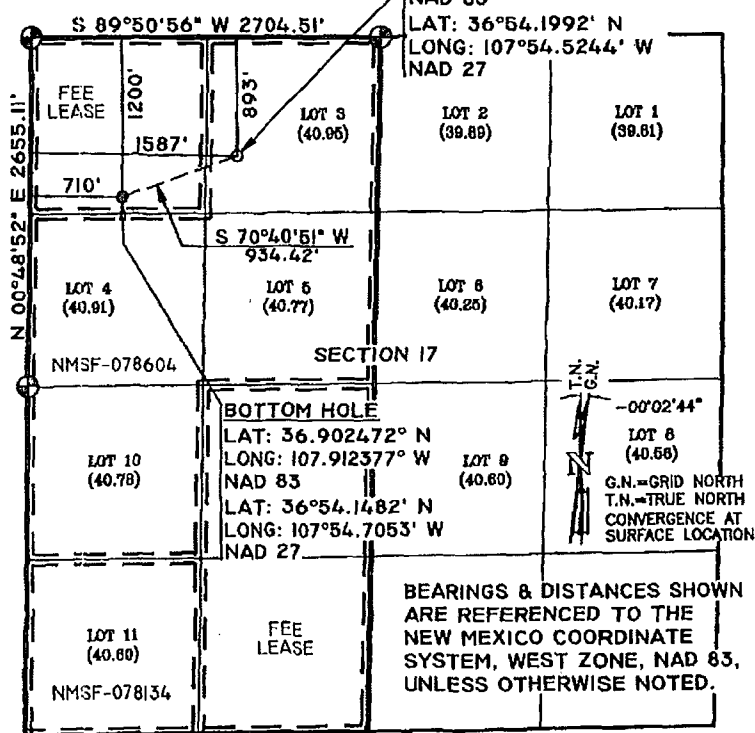
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	17	31 N	10 W		1200	NORTH	710	WEST	SAN JUAN

¹² Dedicated Acres 320.00 (MV) W 1/2 324.01 (DK) W 1/2	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 LEGEND:

- = SURFACE LOCATION
- = BOTTOM HOLE LOCATION
- ⊕ = FOUND 1968 B.L.M. BRASS CAP



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.

Dollie L. Busse 10/6/14
Signature Date
Dollie L. Busse
Printed Name
dollie.l.busse@cop.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.

10/01/14
Date of Survey
Signature and Seal of Professional Surveyor
MARSHALL W. LINDBEN
NEW MEXICO
17078
PROFESSIONAL SURVEYOR
17078
Certificate Number

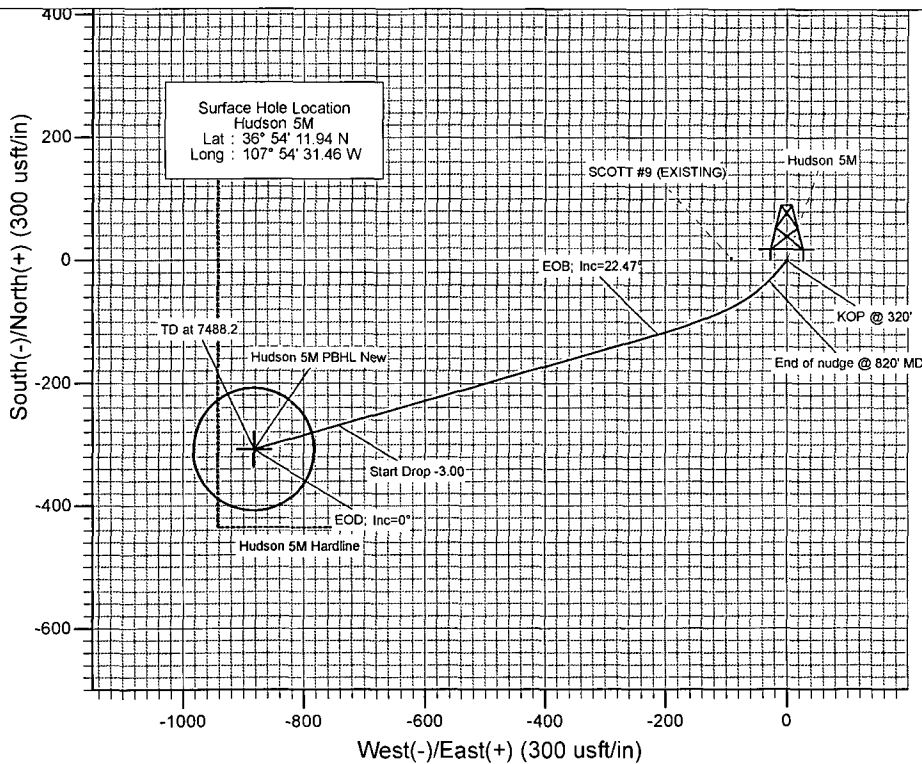
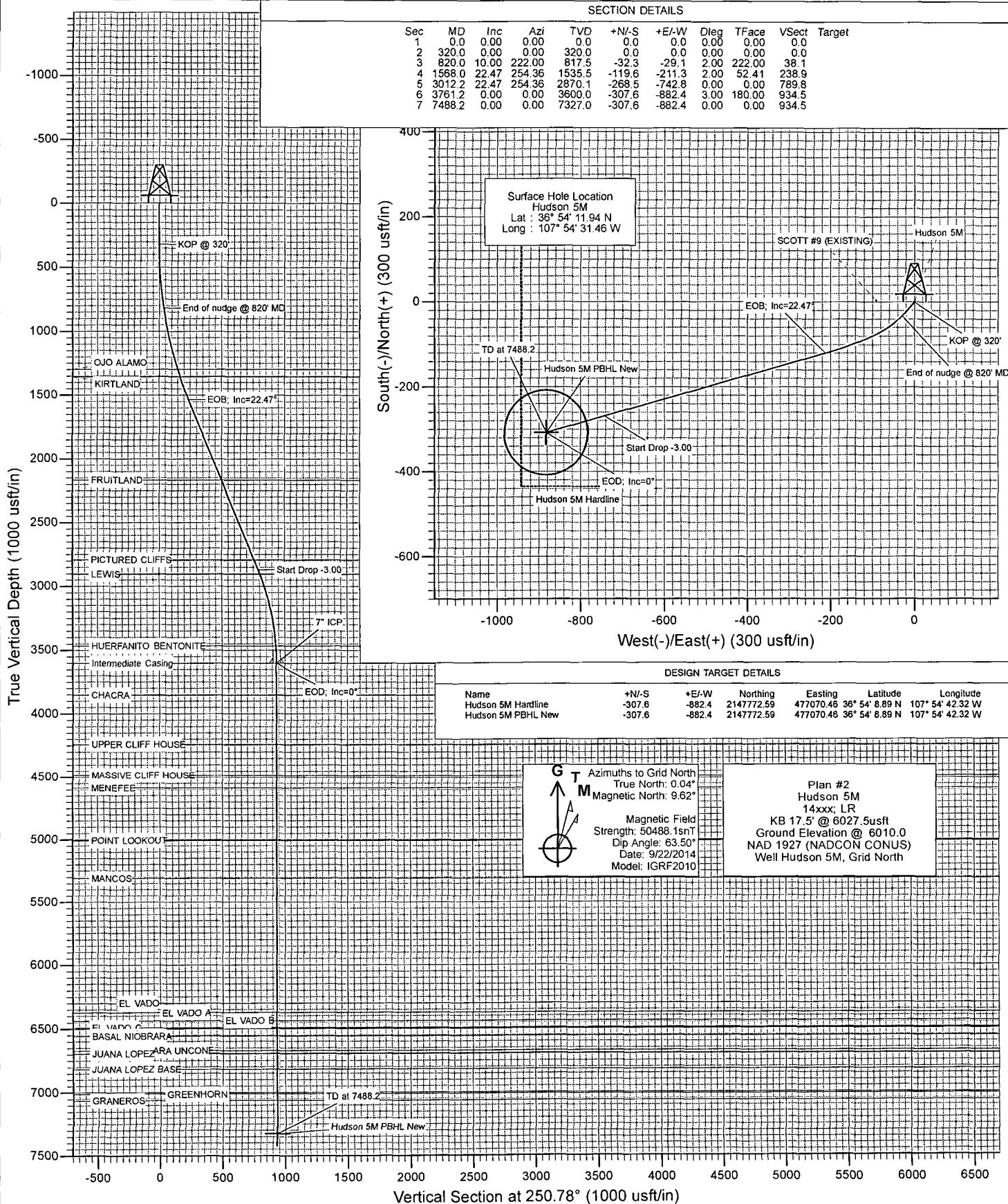


Project: San Juan County, NM
Site: S17-T31N-R10W
Well: Hudson 5M
Wellbore: DD
Design: Plan #2



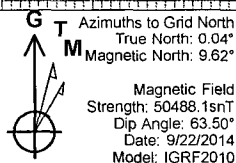
SECTION DETAILS

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	320.0	0.00	0.00	320.0	0.0	0.0	0.00	0.00	0.0	
3	820.0	10.00	222.00	817.5	-32.3	-29.1	2.00	222.00	38.1	
4	1568.0	22.47	254.36	1535.5	-119.6	-211.3	2.00	52.41	238.9	
5	3012.0	22.47	254.36	2870.1	-268.5	-742.8	0.00	0.00	789.8	
6	3761.2	0.00	0.00	3600.0	-307.6	-882.4	3.00	180.00	934.5	
7	7488.2	0.00	0.00	7327.0	-307.6	-882.4	0.00	0.00	934.5	



DESIGN TARGET DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
Hudson 5M Hardline	-307.6	-882.4	2147772.59	477070.46	36° 54' 8.89 N	107° 54' 42.32 W
Hudson 5M PBHL New	-307.6	-882.4	2147772.59	477070.46	36° 54' 8.89 N	107° 54' 42.32 W



Plan #2
Hudson 5M
14xxx; LR
KB 17.5 @ 6027.5usft
Ground Elevation @ 6010.0
NAD 1927 (NADCON CONUS)
Well Hudson 5M, Grid North

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Hudson 5M
Company:	ConocoPhillips	TVD Reference:	KB 17.5' @ 6027.5usft
Project:	San Juan County, NM	MD Reference:	KB 17.5' @ 6027.5usft
Site:	S17-T31N-R10W	North Reference:	Grid
Well:	Hudson 5M	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

Project	San Juan County, NM		
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		

Site	S17-T31N-R10W		
Site Position:		Northing:	2,148,080.21 usft
From:	Lat/Long	Easting:	477,952.84 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16"
		Latitude:	36° 54' 11.94 N
		Longitude:	107° 54' 31.46 W
		Grid Convergence:	-0.05 °

Well	Hudson 5M		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	2.0 usft	Wellhead Elevation:	0.0 usft
		Latitude:	36° 54' 11.94 N
		Longitude:	107° 54' 31.46 W
		Ground Level:	6,010.0 usft

Wellbore	DD		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	9/22/2014	9.58
			Dip Angle
			(°)
			Field Strength
			(nT)
			63.50
			50,488

Design	Plan #2		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			250.78

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	
820.0	10.00	222.00	817.5	-32.3	-29.1	2.00	2.00	0.00	222.00	
1,568.0	22.47	254.36	1,535.5	-119.6	-211.3	2.00	1.67	4.33	52.41	
3,012.2	22.47	254.36	2,870.1	-268.5	-742.8	0.00	0.00	0.00	0.00	
3,761.2	0.00	0.00	3,600.0	-307.6	-882.4	3.00	-3.00	0.00	180.00	
7,488.2	0.00	0.00	7,327.0	-307.6	-882.4	0.00	0.00	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Hudson 5M
Company:	ConocoPhillips	TVD Reference:	KB 17.5' @ 6027.5usft
Project:	San Juan County, NM	MD Reference:	KB 17.5' @ 6027.5usft
Site:	S17-T31N-R10W	North Reference:	Grid
Well:	Hudson 5M	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	Hudson 5M Hardline
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	
320.0	0.00	0.00	320.0	0.0	0.0	0.0	0.00	0.00	KOP @ 320'
400.0	1.60	222.00	400.0	-0.8	-0.7	1.0	2.00	2.00	
500.0	3.60	222.00	499.9	-4.2	-3.8	5.0	2.00	2.00	
600.0	5.60	222.00	599.6	-10.2	-9.1	12.0	2.00	2.00	
700.0	7.60	222.00	698.9	-18.7	-16.8	22.1	2.00	2.00	
800.0	9.60	222.00	797.8	-29.8	-26.8	35.2	2.00	2.00	
820.0	10.00	222.00	817.5	-32.3	-29.1	38.1	2.00	2.00	End of nudge @ 820' MD
900.0	11.05	228.63	896.1	-42.6	-39.5	51.3	2.00	1.31	
1,000.0	12.52	235.27	994.0	-55.1	-55.6	70.7	2.00	1.47	
1,100.0	14.12	240.47	1,091.3	-67.3	-75.2	93.1	2.00	1.60	
1,200.0	15.82	244.61	1,187.9	-79.1	-98.1	118.7	2.00	1.69	
1,300.0	17.57	247.96	1,283.7	-90.6	-124.4	147.3	2.00	1.75	
1,313.9	17.82	248.37	1,297.0	-92.2	-128.3	151.5	2.00	1.78	OJO ALAMO
1,375.1	18.92	250.07	1,355.0	-99.0	-146.3	170.8	2.00	1.80	KIRTLAND
1,400.0	19.37	250.71	1,378.6	-101.8	-154.0	179.0	2.00	1.82	
1,500.0	21.21	253.00	1,472.4	-112.5	-187.0	213.6	2.00	1.84	
1,568.0	22.47	254.36	1,535.5	-119.6	-211.3	238.9	2.00	1.86	EOB; Inc=22.47°
1,600.0	22.47	254.36	1,565.0	-122.9	-223.0	251.1	0.00	0.00	
1,700.0	22.47	254.36	1,657.5	-133.3	-259.8	289.2	0.00	0.00	
1,800.0	22.47	254.36	1,749.9	-143.6	-296.6	327.4	0.00	0.00	
1,900.0	22.47	254.36	1,842.3	-153.9	-333.4	365.5	0.00	0.00	
2,000.0	22.47	254.36	1,934.7	-164.2	-370.2	403.7	0.00	0.00	
2,100.0	22.47	254.36	2,027.1	-174.5	-407.1	441.8	0.00	0.00	
2,200.0	22.47	254.36	2,119.5	-184.8	-443.9	479.9	0.00	0.00	
2,252.5	22.47	254.36	2,168.0	-190.2	-463.2	500.0	0.00	0.00	FRUITLAND
2,300.0	22.47	254.36	2,211.9	-195.1	-480.7	518.1	0.00	0.00	
2,400.0	22.47	254.36	2,304.3	-205.4	-517.5	556.2	0.00	0.00	
2,500.0	22.47	254.36	2,396.7	-215.7	-554.3	594.4	0.00	0.00	
2,600.0	22.47	254.36	2,489.1	-226.0	-591.1	632.5	0.00	0.00	
2,700.0	22.47	254.36	2,581.5	-236.3	-627.9	670.7	0.00	0.00	
2,800.0	22.47	254.36	2,673.9	-246.6	-664.7	708.8	0.00	0.00	
2,900.0	22.47	254.36	2,766.4	-256.9	-701.5	747.0	0.00	0.00	
2,928.8	22.47	254.36	2,793.0	-259.9	-712.1	758.0	0.00	0.00	PICTURED CLIFFS
3,000.0	22.47	254.36	2,858.8	-267.2	-738.3	785.1	0.00	0.00	
3,012.2	22.47	254.36	2,870.1	-268.5	-742.8	789.8	0.00	0.00	Start Drop -3.00
3,049.9	21.34	254.36	2,905.0	-272.3	-756.3	803.8	3.00	-3.00	LEWIS
3,100.0	19.84	254.36	2,951.9	-277.0	-773.3	821.4	3.00	-3.00	
3,200.0	16.84	254.36	3,046.8	-285.5	-803.6	852.8	3.00	-3.00	
3,300.0	13.84	254.36	3,143.3	-292.7	-829.0	879.2	3.00	-3.00	
3,400.0	10.84	254.36	3,240.9	-298.4	-849.6	900.5	3.00	-3.00	
3,500.0	7.84	254.36	3,339.6	-302.8	-865.2	916.7	3.00	-3.00	
3,600.0	4.84	254.36	3,439.0	-305.8	-875.9	927.7	3.00	-3.00	
3,628.1	3.99	254.36	3,467.0	-306.3	-877.9	929.8	3.00	-3.00	HUERFANITO BENTONITE
3,700.0	1.84	254.36	3,538.8	-307.3	-881.5	933.5	3.00	-3.00	
3,761.2	0.00	0.00	3,600.0	-307.6	-882.4	934.5	3.00	-3.00	EOD; Inc=0° - 7" ICP
3,763.2	0.00	0.00	3,602.0	-307.6	-882.4	934.5	0.00	0.00	Intermediate Casing
3,800.0	0.00	0.00	3,638.8	-307.6	-882.4	934.5	0.00	0.00	
3,900.0	0.00	0.00	3,738.8	-307.6	-882.4	934.5	0.00	0.00	

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well: Hudson 5M
Company:	ConocoPhillips	TVD Reference:	KB 17.5' @ 6027.5usft
Project:	San Juan County NM	MD Reference:	KB 17.5' @ 6027.5usft
Site:	S17-T31N-R10W	North Reference:	Grid
Well:	Hudson 5M	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100u)	Comments / Formations
4,000.0	0.00	0.00	3,838.8	-307.6	-882.4	934.5	0.00	0.00	
4,014.2	0.00	0.00	3,853.0	-307.6	-882.4	934.5	0.00	0.00	CHACRA
4,100.0	0.00	0.00	3,938.8	-307.6	-882.4	934.5	0.00	0.00	
4,200.0	0.00	0.00	4,038.8	-307.6	-882.4	934.5	0.00	0.00	
4,300.0	0.00	0.00	4,138.8	-307.6	-882.4	934.5	0.00	0.00	
4,400.0	0.00	0.00	4,238.8	-307.6	-882.4	934.5	0.00	0.00	
4,401.2	0.00	0.00	4,240.0	-307.6	-882.4	934.5	0.00	0.00	UPPER CLIFF HOUSE
4,500.0	0.00	0.00	4,338.8	-307.6	-882.4	934.5	0.00	0.00	
4,600.0	0.00	0.00	4,438.8	-307.6	-882.4	934.5	0.00	0.00	
4,646.2	0.00	0.00	4,485.0	-307.6	-882.4	934.5	0.00	0.00	MASSIVE CLIFF HOUSE
4,700.0	0.00	0.00	4,538.8	-307.6	-882.4	934.5	0.00	0.00	
4,748.2	0.00	0.00	4,587.0	-307.6	-882.4	934.5	0.00	0.00	MENEFEE
4,800.0	0.00	0.00	4,638.8	-307.6	-882.4	934.5	0.00	0.00	
4,900.0	0.00	0.00	4,738.8	-307.6	-882.4	934.5	0.00	0.00	
5,000.0	0.00	0.00	4,838.8	-307.6	-882.4	934.5	0.00	0.00	
5,100.0	0.00	0.00	4,938.8	-307.6	-882.4	934.5	0.00	0.00	
5,168.2	0.00	0.00	5,007.0	-307.6	-882.4	934.5	0.00	0.00	POINT LOOKOUT
5,200.0	0.00	0.00	5,038.8	-307.6	-882.4	934.5	0.00	0.00	
5,300.0	0.00	0.00	5,138.8	-307.6	-882.4	934.5	0.00	0.00	
5,400.0	0.00	0.00	5,238.8	-307.6	-882.4	934.5	0.00	0.00	
5,470.2	0.00	0.00	5,309.0	-307.6	-882.4	934.5	0.00	0.00	MANCOS
5,500.0	0.00	0.00	5,338.8	-307.6	-882.4	934.5	0.00	0.00	
5,600.0	0.00	0.00	5,438.8	-307.6	-882.4	934.5	0.00	0.00	
5,700.0	0.00	0.00	5,538.8	-307.6	-882.4	934.5	0.00	0.00	
5,800.0	0.00	0.00	5,638.8	-307.6	-882.4	934.5	0.00	0.00	
5,900.0	0.00	0.00	5,738.8	-307.6	-882.4	934.5	0.00	0.00	
6,000.0	0.00	0.00	5,838.8	-307.6	-882.4	934.5	0.00	0.00	
6,100.0	0.00	0.00	5,938.8	-307.6	-882.4	934.5	0.00	0.00	
6,200.0	0.00	0.00	6,038.8	-307.6	-882.4	934.5	0.00	0.00	
6,300.0	0.00	0.00	6,138.8	-307.6	-882.4	934.5	0.00	0.00	
6,400.0	0.00	0.00	6,238.8	-307.6	-882.4	934.5	0.00	0.00	
6,461.2	0.00	0.00	6,300.0	-307.6	-882.4	934.5	0.00	0.00	EL VADO
6,500.0	0.00	0.00	6,338.8	-307.6	-882.4	934.5	0.00	0.00	
6,534.2	0.00	0.00	6,373.0	-307.6	-882.4	934.5	0.00	0.00	EL VADO A
6,599.2	0.00	0.00	6,438.0	-307.6	-882.4	934.5	0.00	0.00	EL VADO B
6,600.0	0.00	0.00	6,438.8	-307.6	-882.4	934.5	0.00	0.00	
6,652.2	0.00	0.00	6,491.0	-307.6	-882.4	934.5	0.00	0.00	EL VADO C
6,700.0	0.00	0.00	6,538.8	-307.6	-882.4	934.5	0.00	0.00	
6,719.2	0.00	0.00	6,558.0	-307.6	-882.4	934.5	0.00	0.00	BASAL NIOBRARA
6,800.0	0.00	0.00	6,638.8	-307.6	-882.4	934.5	0.00	0.00	
6,833.2	0.00	0.00	6,672.0	-307.6	-882.4	934.5	0.00	0.00	BASAL NIOBRARA UNCONF
6,855.2	0.00	0.00	6,694.0	-307.6	-882.4	934.5	0.00	0.00	JUANA LOPEZ
6,900.0	0.00	0.00	6,738.8	-307.6	-882.4	934.5	0.00	0.00	
6,978.2	0.00	0.00	6,817.0	-307.6	-882.4	934.5	0.00	0.00	JUANA LOPEZ BASE
7,000.0	0.00	0.00	6,838.8	-307.6	-882.4	934.5	0.00	0.00	
7,100.0	0.00	0.00	6,938.8	-307.6	-882.4	934.5	0.00	0.00	
7,172.2	0.00	0.00	7,011.0	-307.6	-882.4	934.5	0.00	0.00	GREENHORN
7,200.0	0.00	0.00	7,038.8	-307.6	-882.4	934.5	0.00	0.00	
7,224.2	0.00	0.00	7,063.0	-307.6	-882.4	934.5	0.00	0.00	GRANEROS
7,300.0	0.00	0.00	7,138.8	-307.6	-882.4	934.5	0.00	0.00	
7,400.0	0.00	0.00	7,238.8	-307.6	-882.4	934.5	0.00	0.00	
7,488.2	0.00	0.00	7,327.0	-307.6	-882.4	934.5	0.00	0.00	TD at 7488.2 - Hudson 5M PBHL - Hudson 5M I

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Hudson 5M
Company:	ConocoPhillips	TVD Reference:	KB 17.5' @ 6027.5usft
Project:	San Juan County, NM	MD Reference:	KB 17.5' @ 6027.5usft
Site:	S17-T31N-R10W	North Reference:	Grid
Well:	Hudson 5M	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

Targets									
Target Name	hit/miss target	Dip Angle	Dip Dir	TVD	+N/-S	+E/-W	Northing	Easting	
- Shape		(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude Longitude
Hudson 5M Hardline		0.00	360.00	-7,327.0	-307.6	-882.4	2,147,772.59	477,070.46	36° 54' 8.89 N 107° 54' 42.32 W
- plan misses target center by 7386.3usft at 0.0usft MD (0.0 TVD, 0.0 N, 0.0 E)									
- Polygon									
Point 1				-7,327.0	500.0	-60.0	2,148,272.59	477,010.46	
Point 2				-7,327.0	-128.0	-60.0	2,147,644.59	477,010.46	
Point 3				-7,327.0	-128.0	200.0	2,147,644.59	477,270.46	
Point 4				-7,327.0	-128.0	-60.0	2,147,644.59	477,010.46	
Hudson 5M PBHL		0.00	360.00	7,327.0	-307.6	-882.4	2,147,772.59	477,070.46	36° 54' 8.89 N 107° 54' 42.32 W
- plan hits target center									
- Circle (radius 100.0)									
Hudson 5M PBHL New		0.00	360.00	7,327.0	-307.6	-882.4	2,147,772.59	477,070.46	36° 54' 8.89 N 107° 54' 42.32 W
- plan hits target center									
- Circle (radius 100.0)									

Casing Points					
Measured Depth	Vertical Depth			Casing Diameter	Hole Diameter
(usft)	(usft)	Name		(")	(")
3,761.2	3,600.0	7" ICP		7	8-3/4

Planning Report

Database:	USA EDM 5000 Multi Users DB	Local Co-ordinate Reference:	Well Hudson 5M
Company:	ConocoPhillips	TVD Reference:	KB 17.5' @ 6027.5usft
Project:	San Juan County, NM	MD Reference:	KB 17.5' @ 6027.5usft
Site:	S17-T31N-R10W	North Reference:	Grid
Well:	Hudson 5M	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,313.9	1,297.0	OJO ALAMO				
1,375.1	1,355.0	KIRTLAND				
2,252.5	2,168.0	FRUITLAND				
2,928.8	2,793.0	PICTURED CLIFFS				
3,049.9	2,905.0	LEWIS				
3,628.1	3,467.0	HUERFANITO BENTONITE				
3,763.2	3,602.0	Intermediate Casing				
4,014.2	3,853.0	CHACRA				
4,401.2	4,240.0	UPPER CLIFF HOUSE				
4,646.2	4,485.0	MASSIVE CLIFF HOUSE				
4,748.2	4,587.0	MENEFEE				
5,168.2	5,007.0	POINT LOOKOUT				
5,470.2	5,309.0	MANCOS				
6,461.2	6,300.0	EL VADO				
6,534.2	6,373.0	EL VADO A				
6,599.2	6,438.0	EL VADO B				
6,652.2	6,491.0	EL VADO C				
6,719.2	6,558.0	BASAL NIOBRARA				
6,833.2	6,672.0	BASAL NIOBRARA UNCONF				
6,855.2	6,694.0	JUANA LOPEZ				
6,978.2	6,817.0	JUANA LOPEZ BASE				
7,172.2	7,011.0	GREENHORN				
7,224.2	7,063.0	GRANEROS				

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
320.0	320.0	0.0	0.0	KOP @ 320'
820.0	817.5	-32.3	-29.1	End of nudge @ 820' MD
1,568.0	1,535.5	-119.6	-211.3	EOB; Inc=22.47°
3,012.2	2,870.1	-268.5	-742.8	Start Drop -3.00
3,761.2	3,600.0	-307.6	-882.4	EOD; Inc=0°
7,488.2	7,327.0	-307.6	-882.4	TD at 7488.2

ConocoPhillips

San Juan County, NM

S17-T31N-R10W

Hudson 5M

DD

Plan #2

Anticollision Report

03 October, 2014

Anticollision Report

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well Hudson 5M
Project:	San Juan County, NM	TVD Reference:	KB 17.5' @ 6027.5usft
Reference Site:	S17-T31N-R10W	MD Reference:	KB 17.5' @ 6027.5usft
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Hudson 5M	Survey Calculation Method:	Minimum Curvature
Well Error:	2.0usft	Output errors are at	2.00 sigma
Reference Wellbore	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.0usft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,252.3usft	Error Surface:	Combined Covariances
Warning Levels Evaluated at:	2.79 Sigma		

Survey Tool Program	Date: 10/3/2014			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	7,488.2	Plan #2 (DD)	Geolink MWD	Geolink MWD

Summary						
Site Name	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Offset Well: Wellbore - Design						
S17-T31N-R10W						
SCOTT #9 (EXISTING) - SURVEYS - SURVEYS	967.7	960.0	68.3	30.4	1.801 CC	
SCOTT #9 (EXISTING) - SURVEYS - SURVEYS	1,000.0	991.5	68.5	29.3	1.745 ES	
SCOTT #9 (EXISTING) - SURVEYS - SURVEYS	1,100.0	1,088.8	72.7	29.3	1.675 SF	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well: Hudson 5M
Project:	San Juan County, NM	TVD Reference:	KB 17.5' @ 6027.5usft
Reference Site:	S17-T31N-R10W	MD Reference:	KB 17.5' @ 6027.5usft
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Hudson 5M	Survey Calculation Method:	Minimum Curvature
Well Error:	2.0usft	Output errors are at:	2.00 sigma
Reference Wellbore:	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Offset Design S17-T31N-R10W - SCOTT #9 (EXISTING) - SURVEYS - SURVEYS													Offset Site Error:
Survey Program: 130-INCLINOMETER													0.0 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Total Uncertainty Axis	Separation Factor	Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		+N/S (usft)	+E/W (usft)	Between Centres (usft)	Between Ellipses (usft)			
0.0	0.0	0.0	0.0	2.0	2.0	-87.68	3.7	-90.9	91.0				
100.0	100.0	97.5	97.5	2.0	2.4	-87.68	3.7	-90.9	90.9	86.6	4.35	20.893	
200.0	200.0	197.5	197.5	2.0	4.3	-87.68	3.7	-90.9	90.9	84.3	6.62	13.740	
300.0	300.0	297.5	297.5	2.1	7.1	-87.68	3.7	-90.9	90.9	80.6	10.34	8.796	
400.0	400.0	397.5	397.5	2.1	10.1	50.88	3.7	-90.9	90.2	75.9	14.35	6.287	
500.0	499.9	497.4	497.4	2.2	13.1	53.23	3.7	-90.9	87.4	69.0	18.47	4.735	
600.0	599.6	597.1	597.1	2.3	16.1	57.74	3.7	-90.9	82.9	60.3	22.62	3.665	
700.0	698.9	696.4	696.4	2.4	19.1	65.02	3.7	-90.9	77.3	50.6	26.78	2.888	
800.0	797.8	795.3	795.3	2.6	22.0	75.81	3.7	-90.9	72.3	41.3	30.95	2.334	
900.0	896.1	893.6	893.6	2.8	25.0	83.51	3.7	-90.9	69.1	34.0	35.11	1.968	
967.7	962.5	960.0	960.0	3.0	27.0	90.00	3.7	-90.9	68.3	30.4	37.93	1.801 CC	
1,000.0	994.0	991.5	991.5	3.1	28.0	93.69	3.7	-90.9	68.5	29.3	39.26	1.745 ES	
1,100.0	1,091.3	1,088.8	1,088.8	3.4	30.9	106.55	3.7	-90.9	72.7	29.3	43.38	1.675 SF	
1,200.0	1,187.9	1,185.4	1,185.4	3.8	33.9	119.41	3.7	-90.9	83.1	35.7	47.47	1.751	
1,300.0	1,283.7	1,281.2	1,281.2	4.2	36.8	130.25	3.7	-90.9	100.1	48.6	51.51	1.943	
1,400.0	1,378.6	1,376.1	1,376.1	4.7	39.6	138.56	3.7	-90.9	122.9	67.4	55.51	2.214	
1,500.0	1,472.4	1,469.9	1,469.9	5.3	42.5	144.72	3.7	-90.9	150.8	91.3	59.47	2.536	
1,600.0	1,565.0	1,562.5	1,562.5	6.0	45.3	149.95	3.7	-90.9	183.0	119.8	63.39	2.887	
1,700.0	1,657.5	1,655.0	1,655.0	6.6	48.1	154.93	3.7	-90.9	217.5	150.2	67.30	3.232	
1,800.0	1,749.9	1,747.4	1,747.4	7.3	50.9	158.56	3.7	-90.9	253.0	181.8	71.21	3.553	
1,900.0	1,842.3	1,839.8	1,839.8	8.0	53.7	161.31	3.7	-90.9	289.2	214.1	75.13	3.850	
2,000.0	1,934.7	1,932.2	1,932.2	8.7	56.5	163.45	3.7	-90.9	325.9	246.9	79.04	4.123	
2,100.0	2,027.1	2,024.6	2,024.6	9.4	59.3	165.16	3.7	-90.9	362.9	280.0	82.96	4.375	
2,200.0	2,119.5	2,117.0	2,117.0	10.1	62.1	166.56	3.7	-90.9	400.1	313.3	86.87	4.606	
2,300.0	2,211.9	2,209.4	2,209.4	10.8	64.9	167.72	3.7	-90.9	437.5	346.8	90.79	4.819	
2,400.0	2,304.3	2,301.8	2,301.8	11.5	67.7	168.70	3.7	-90.9	475.1	380.4	94.71	5.016	
2,500.0	2,396.7	2,394.2	2,394.2	12.2	70.5	169.53	3.7	-90.9	512.7	414.1	98.63	5.198	
2,600.0	2,489.1	2,486.6	2,486.6	12.9	73.3	170.25	3.7	-90.9	550.4	447.9	102.54	5.368	
2,700.0	2,581.5	2,579.0	2,579.0	13.6	76.1	170.88	3.7	-90.9	588.2	481.7	106.46	5.525	
2,800.0	2,673.9	2,671.5	2,671.5	14.3	79.0	171.44	3.7	-90.9	626.0	515.6	110.38	5.671	
2,900.0	2,766.4	2,763.9	2,763.9	15.0	81.8	171.93	3.7	-90.9	663.9	549.6	114.30	5.808	
3,000.0	2,858.8	2,856.3	2,856.3	15.8	84.6	172.36	3.7	-90.9	701.8	583.6	118.22	5.936	
3,100.0	2,951.9	2,949.4	2,949.4	16.4	87.4	172.86	3.7	-90.9	737.9	615.7	122.17	6.040	
3,200.0	3,045.8	2,968.0	2,968.0	17.0	88.0	173.06	3.7	-90.9	772.9	650.6	122.36	6.317	
3,300.0	3,143.3	2,968.0	2,968.0	17.4	88.0	173.23	3.7	-90.9	814.0	693.8	120.18	6.773	
3,400.0	3,240.9	2,968.0	2,968.0	17.8	88.0	173.41	3.7	-90.9	860.3	743.5	116.76	7.368	
3,500.0	3,339.6	2,968.0	2,968.0	18.1	88.0	173.61	3.7	-90.9	910.9	798.5	112.47	8.099	
3,600.0	3,439.0	2,968.0	2,968.0	18.3	88.0	173.82	3.7	-90.9	965.1	857.5	107.59	8.970	
3,700.0	3,538.8	2,968.0	2,968.0	18.4	88.0	174.04	3.7	-90.9	1,022.1	919.8	102.32	9.989	
3,800.0	3,638.8	2,968.0	2,968.0	18.4	88.0	68.53	3.7	-90.9	1,081.7	984.8	96.84	11.170	
3,900.0	3,738.8	2,968.0	2,968.0	18.5	88.0	68.53	3.7	-90.9	1,146.2	1,054.7	91.44	12.535	
4,000.0	3,838.8	2,968.0	2,968.0	18.6	88.0	68.53	3.7	-90.9	1,215.5	1,129.2	86.28	14.088	

Anticollision Report

Company:	ConocoPhillips	Local Co-ordinate Reference:	Well Hudson: 5M
Project:	San Juan County, NM	TVD Reference:	KB 17.5' @ 6027.5usft
Reference Site:	S17-T31N-R10W	MD Reference:	KB 17.5' @ 6027.5usft
Site Error:	0.0usft	North Reference:	Grid
Reference Well:	Hudson 5M	Survey Calculation Method:	Minimum Curvature
Well Error:	2.0usft	Output errors are at:	2.00 sigma
Reference Wellbore:	DD	Database:	USA EDM 5000 Multi Users DB
Reference Design:	Plan #2	Offset TVD Reference:	Offset Datum

Reference Depths are relative to KB 17.5' @ 6027.5usft

Offset Depths are relative to Offset Datum

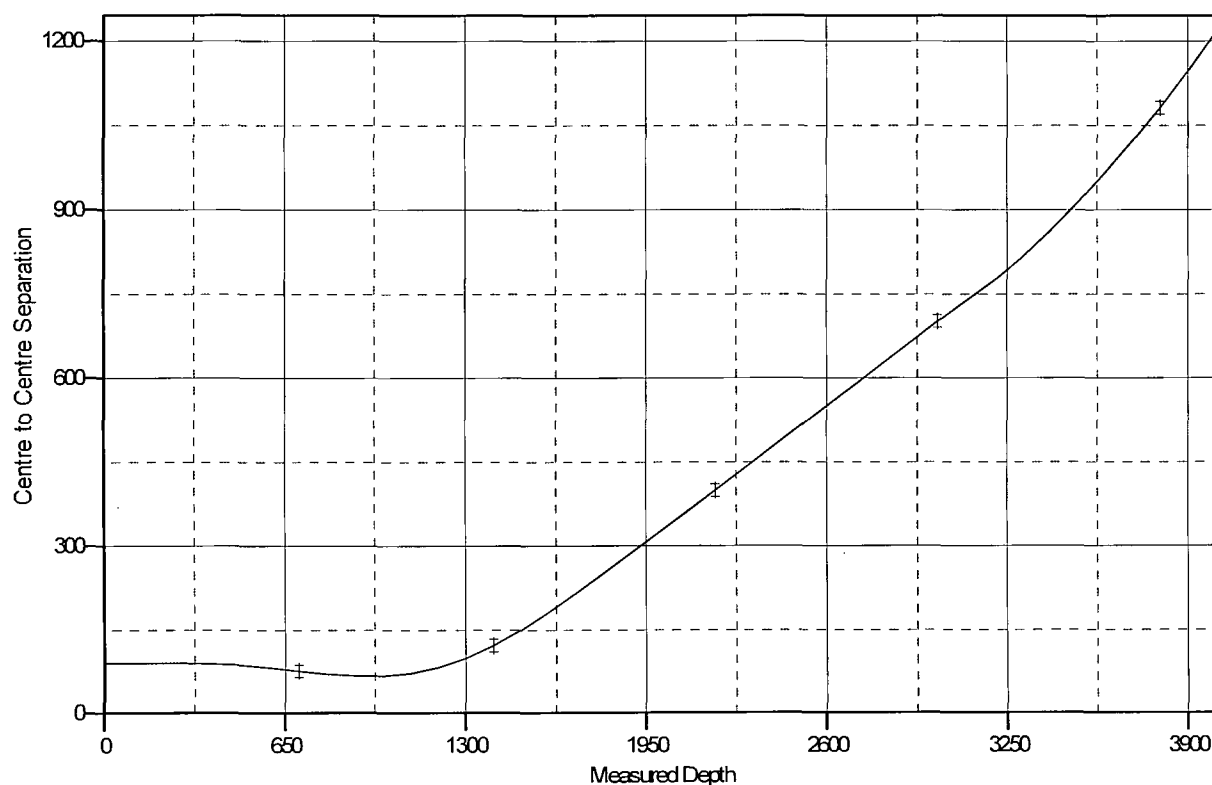
Central Meridian is 107° 50' 0.00 W°

Coordinates are relative to: Hudson 5M

Coordinate System is US State Plane 1927 (Exact solution), New Mexico West 30

Grid Convergence at Surface is: -0.05°

Ladder Plot



LEGEND

- SCOTT #9 (EXISTING), SURVEYS, SURVEYS V0