



#14536

Devon Energy

Chaves Co, New Mexico (Nad-83)

Jinglebob 29 Fee #1H

Jinglebob 29 Fee #1H

Lateral #1

Plan: Design #2

Standard Survey Report

21 July, 2010





CUDD Drilling & Measurement Services

Survey Report



Company:	Devon Energy	Local Co-ordinate Reference:	Site Jinglebob 29 Fee #1H
Project:	Chaves Co, New Mexico (Nad-83)	TVD Reference:	WELL @ 3774.00ft (Original Well Elev)
Site:	Jinglebob 29 Fee #1H	MD Reference:	WELL @ 3774.00ft (Original Well Elev)
Well:	Jinglebob 29 Fee #1H	North Reference:	Grid
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Design #2	Database:	EDM 2003.21 Single User Db

Project	Chaves Co, New Mexico (Nad-83)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Jinglebob 29 Fee #1H, Sec 29, T-11S, R-29E				
Site Position:		Northing:	851,861.12 ft	Latitude:	33° 20' 29.042 N
From:	Map	Easting:	625,360.18 ft	Longitude:	104° 3' 29.526 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.15 °

Well	Jinglebob 29 Fee #1H					
Well Position	+N/-S	0.00 ft	Northing:	851,861.12 ft	Latitude:	33° 20' 29.042 N
	+E/-W	0.00 ft	Easting:	625,360.18 ft	Longitude:	104° 3' 29.526 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	3,774.00 ft	Ground Level:	3,755.00 ft

Wellbore	Lateral #1				
Magnetics:	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	06/16/10	8.01	61.18	49,363

Design	Design #2				
Audit Notes:					
Version:	Phase:	PLAN	Tie On Depth:	0.00	
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	89.86	

Survey Tool Program	Date 07/21/10				
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	7,300.00	Design #2 (Lateral #1)	NS-GYRO-MS	North sensing gyrocompassing m/s	
7,300.00	11,420.49	Design #2 (Lateral #1)	CUDD MWD	MWD - Standard CUDD MWD	

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)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,585.00	0.00	0.00	5,585.00	0.00	0.00	0.00	0.00	0.00	0.00	
Abo										
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
Abo Dolomite										
6,385.00	0.00	0.00	6,385.00	0.00	0.00	0.00	0.00	0.00	0.00	
Wolfcamp										
7,110.00	0.00	0.00	7,110.00	0.00	0.00	0.00	0.00	0.00	0.00	
Pennsylvanian										
7,472.35	0.00	0.00	7,472.35	0.00	0.00	0.00	0.00	0.00	0.00	
7,472.36	0.00	89.98	7,472.36	0.00	0.00	0.00	0.00	0.00	0.00	



CUDD Drilling & Measurement Services

Survey Report



Company: Devon Energy
Project: Chaves Co, New Mexico (Nad-83)
Site: Jinglebob 29 Fee #1H
Well: Jinglebob 29 Fee #1H
Wellbore: Lateral #1
Design: Design #2

Local Co-ordinate Reference: Site Jinglebob 29 Fee #1H
TVD Reference: WELL @ 3774.00ft (Original Well Elev)
MD Reference: WELL @ 3774.00ft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 2003.21 Single User Db

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)
KOP - Build 10°/100'									
8,028.72	55.64	89.98	7,945.31	0.10	249.56	249.56	10.00	10.00	0.00
Mississippian									
8,361.15	88.88	89.98	8,045.20	0.23	561.76	561.76	10.00	10.00	0.00
8,361.16	88.88	89.98	8,045.20	0.23	561.77	561.77	0.00	0.00	0.00
EOC - Hold 1:88.88° @ A:89.98°									
11,420.49	88.88	89.98	8,105.00	1.46	3,620.51	3,620.50	0.00	0.00	0.00
PBHL - TD(J29F#1H)									

Design Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
- Shape									
PBHL - TD(J29F#1H)	0.00	359.85	8,105.00	1.46	3,620.51	851,862.58	628,980.68	33° 20' 28.960 N	104° 2' 46.848 W
- plan hits target center									
- Point									

Formations

Measured Depth (ft)	Vertical Depth (ft)	Name	Lithology	Dip (°)	Dip Direction (°)
5,585.00	5,585.00	Abo		1.22	89.86
6,000.00	6,000.00	Abo Dolomite		1.22	89.86
6,385.00	6,385.00	Wolfcamp		1.22	89.86
7,110.00	7,110.00	Pennsylvanian		1.22	89.86
8,028.72	7,940.00	Mississippian		1.22	89.86
	8,195.00	Mississippian Lower Osage		1.22	89.86
	8,490.00	Siluro-Devonian		1.22	89.86

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
7,472.36	7,472.36	0.00	0.00	KOP - Build 10°/100'
8,361.16	8,045.20	0.23	561.77	EOC - Hold 1:88.88° @ A:89.98°

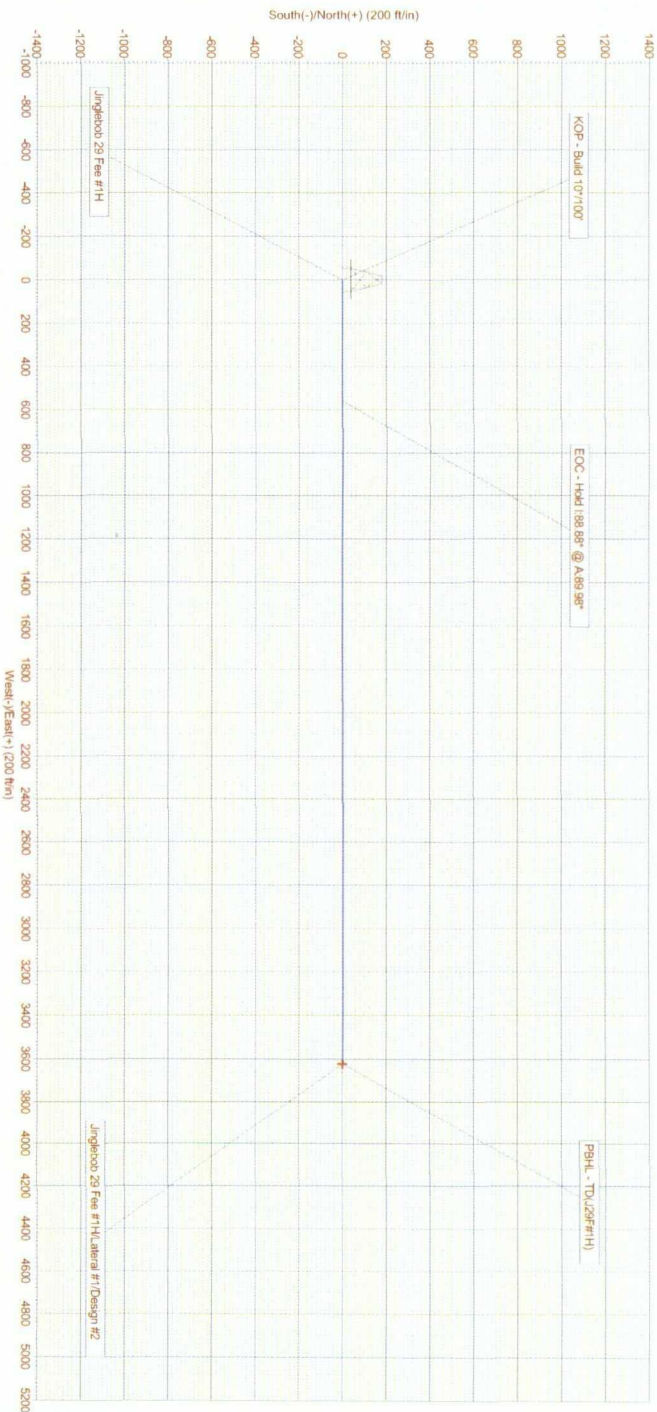
Checked By: _____ Approved By: _____ Date: _____



Project: Chavez Co, New Mexico (Nad-83)
Site: Jinglebob 29 Fee #1H
Well: Jinglebob 29 Fee #1H
Wellbore: Jinglebob 29 Fee #1H
Design: Design #2



Plan: Design #2 (Jinglebob 29 Fee #1H, lateral #1)	
Created By: Mike Saffery	Date: 10/26 July 21 2010
Checked: _____	Date: _____
Reviewed: _____	Date: _____
Approved: _____	Date: _____

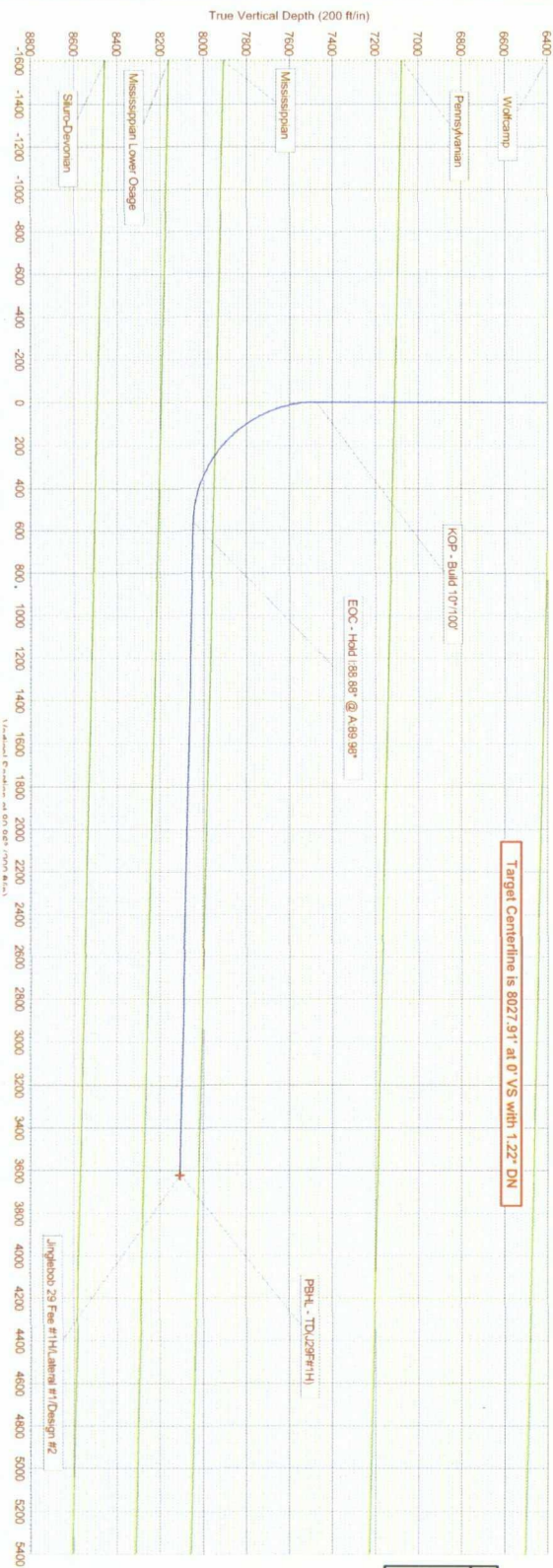


SECTION DETAILS									
Sec	MD	Inc	Az	TVD	+N-S	+E-W	D Lag	Trace	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	7472.36	0.00	0.00	7472.36	0.00	0.00	0.00	0.00	0.00
3	8345.20	88.88	89.98	8345.20	0.22	561.76	10.00	89.98	561.76
4	11420.48	88.88	89.98	8105.00	1.46	3620.51	0.00	0.00	3620.50

ANNOTATIONS			
TVD	MD	Annotation	
7472.36	7472.36	KOP-Build 107'100"	
8345.20	8345.16	EOC-Hdd 188.88' @ A.88.98"	

WELL DETAILS: Jinglebob 29 Fee #1H			
Ground Level			
3755.00			
WELL @ 3754.00m (Original Well Elev)			
+N-S	+E-W	Northing	Longitude
0.00	0.00	85196.12	104° 3' 29.526 W

WELLBORE TARGET DETAILS: MAP CO-ORDINATES AND LAT/LONG									
Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape	Point
PBL-TD, J29F#1H	8105.00	1.46	3620.51	85196.258	625560.68	33° 20' 28.960 N	104° 2' 46.846 W		



PROJECT DETAILS: Chavez Co, New Mexico (Nad-83)	
Geoid System	US State Plane 1983
Ellipsoid	North American Datum 1983
Zone	New Mexico Eastern Zone
System Datum	Mean Sea Level



Jinglebob 29 Fee #1H_Plan #2_Report_07-21-10.txt

Devon Energy

Jinglebob 29 Fee #1H - Design #2

Chaves Co, New Mexico (Nad-83)

Jinglebob 29 Fee #1H

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00 N	0.00 E	0.00	0.00
7472.35	0.00	0.00	7472.35	0.00 N	0.00 E	0.00	0.00
7500.00	2.76	89.98	7499.99	0.00 N	0.67 E	0.67	10.00
7600.00	12.76	89.98	7598.95	0.01 N	14.16 E	14.16	10.00
7700.00	22.76	89.98	7694.06	0.02 N	44.63 E	44.63	10.00
7800.00	32.76	89.98	7782.43	0.04 N	91.16 E	91.16	10.00
7900.00	42.76	89.98	7861.38	0.06 N	152.32 E	152.32	10.00
8000.00	52.76	89.98	7928.52	0.09 N	226.27 E	226.27	10.00
8100.00	62.76	89.98	7981.79	0.13 N	310.75 E	310.75	10.00
8200.00	72.76	89.98	8019.58	0.16 N	403.19 E	403.19	10.00
8300.00	82.76	89.98	8040.75	0.20 N	500.80 E	500.80	10.00
8361.15	88.88	89.98	8045.20	0.23 N	561.76 E	561.76	10.00
8400.00	88.88	89.98	8045.96	0.24 N	600.60 E	600.60	0.00
8500.00	88.88	89.98	8047.91	0.28 N	700.58 E	700.58	0.00
8600.00	88.88	89.98	8049.87	0.32 N	800.56 E	800.56	0.00
8700.00	88.88	89.98	8051.82	0.36 N	900.54 E	900.54	0.00
8800.00	88.88	89.98	8053.78	0.40 N	1000.52 E	1000.52	0.00
8900.00	88.88	89.98	8055.73	0.44 N	1100.50 E	1100.50	0.00
9000.00	88.88	89.98	8057.69	0.48 N	1200.48 E	1200.48	0.00
9100.00	88.88	89.98	8059.64	0.52 N	1300.47 E	1300.46	0.00
9200.00	88.88	89.98	8061.60	0.56 N	1400.45 E	1400.44	0.00
9300.00	88.88	89.98	8063.55	0.61 N	1500.43 E	1500.42	0.00
9400.00	88.88	89.98	8065.51	0.65 N	1600.41 E	1600.40	0.00
9500.00	88.88	89.98	8067.46	0.69 N	1700.39 E	1700.39	0.00
9600.00	88.88	89.98	8069.42	0.73 N	1800.37 E	1800.37	0.00
9700.00	88.88	89.98	8071.37	0.77 N	1900.35 E	1900.35	0.00
9800.00	88.88	89.98	8073.33	0.81 N	2000.33 E	2000.33	0.00
9900.00	88.88	89.98	8075.28	0.85 N	2100.31 E	2100.31	0.00
10000.00	88.88	89.98	8077.23	0.89 N	2200.29 E	2200.29	0.00
10100.00	88.88	89.98	8079.19	0.93 N	2300.27 E	2300.27	0.00
10200.00	88.88	89.98	8081.14	0.97 N	2400.25 E	2400.25	0.00
10300.00	88.88	89.98	8083.10	1.01 N	2500.24 E	2500.23	0.00
10400.00	88.88	89.98	8085.05	1.05 N	2600.22 E	2600.21	0.00
10500.00	88.88	89.98	8087.01	1.09 N	2700.20 E	2700.19	0.00
10600.00	88.88	89.98	8088.96	1.13 N	2800.18 E	2800.17	0.00
10700.00	88.88	89.98	8090.92	1.17 N	2900.16 E	2900.15	0.00
10800.00	88.88	89.98	8092.87	1.21 N	3000.14 E	3000.13	0.00
10900.00	88.88	89.98	8094.83	1.25 N	3100.12 E	3100.11	0.00
11000.00	88.88	89.98	8096.78	1.29 N	3200.10 E	3200.10	0.00
11100.00	88.88	89.98	8098.74	1.33 N	3300.08 E	3300.08	0.00
11200.00	88.88	89.98	8100.69	1.37 N	3400.06 E	3400.06	0.00
11300.00	88.88	89.98	8102.64	1.41 N	3500.04 E	3500.04	0.00
11400.00	88.88	89.98	8104.60	1.45 N	3600.03 E	3600.02	0.00
11420.49	88.88	89.98	8105.00	1.46 N	3620.51 E	3620.50	0.00

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.

Vertical depths are relative to WELL. Northings and Eastings are relative to Site.

The Dogleg Severity is in Degrees per 100 feet.

Vertical Section is from Slot and calculated along an Azimuth of 89.858° (Grid).

Jinglebob 29 Fee #1H_Plan #2_Report_07-21-10.txt

Coordinate System is North American Datum 1983 US State Plane 1983, New Mexico Eastern Zone.
Central meridian is -104.333°.
Grid Convergence at Surface is 0.151°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 11420.49ft.,
the Bottom Hole Displacement is 3620.51ft., in the Direction of 89.858° (Grid).