

DEVON ENERGY

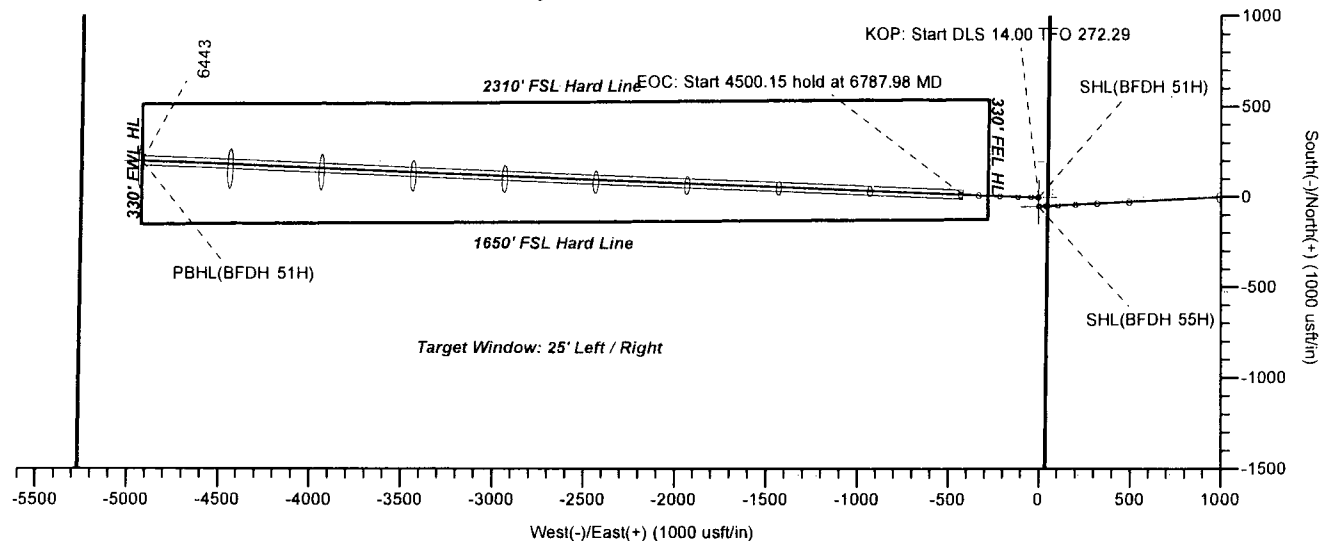
Project: Eddy County, NM (NAD-83)
 Site: Burton Flat Deep Unit
 Well: 51H
 Wellbore: OH
 Design: Plan #2

devon



Azimuths to Grid North
 True North: -0.09°
 Magnetic North: 7.57°

Magnetic Field
 Strength: 48545.1snT
 Dip Angle: 60.31°
 Date: 04/08/2013
 Model: IGRF2010

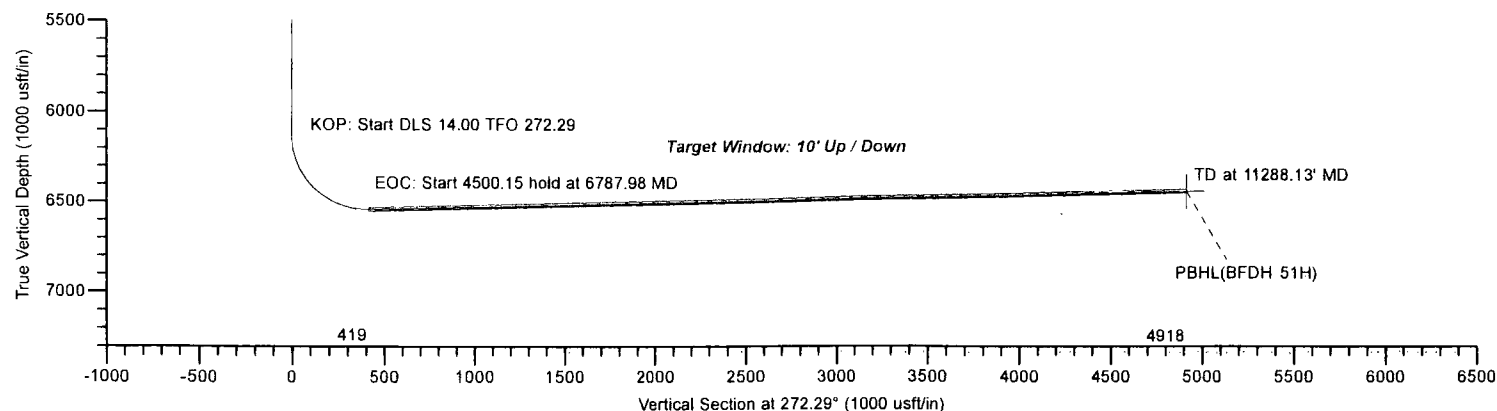


DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
SHL(BFDH 51H)	0.00	0.00	0.00	550798.81	591992.85 32° 30' 50.755 N	104° 10' 8.397 W	
PBHL(BFDH 51H)	6443.00	196.31	-4913.60	550995.12	587079.25 32° 30' 52.769 N	104° 11' 5.780 W	

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	6135.85	0.00	0.00	6135.85	0.00	0.00	0.00	0.00	0.00	
3	6787.98	91.30	272.29	6545.00	16.71	-418.20	14.00	272.29	418.53	
4	11288.13	91.30	272.29	6443.00	196.31	-4913.60	0.00	0.00	4917.52	PBHL(BFDH 51H)



LEAM DRILLING SYSTEMS LLC
 2010 East Davis, Conroe, Texas 77301
 Phone: 936/756-7577, Fax 936/756-7595

Plan: Plan #2 (51H/OH)
 Burton Flat Deep Unit
 Created By: David Vogler
 Date: 12:20, April 12 2013
 Approved: _____
 Date: _____

LEAM Drilling Systems LLC

Planning Report

Database Company:	EDM 5000.1 Single User Db DEVON ENERGY	Local Co-ordinate Reference:	Well 51H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3202' + KB 25' @ 3227.00usft (Cactus 126)
Site:	Burton Flat Deep Unit	MD Reference:	GE 3202' + KB 25' @ 3227.00usft (Cactus 126)
Well:	51H	North Reference:	Gnd
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	Plan #2		

Project:	Eddy County, NM (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:	Burton Flat Deep Unit		
Site Position:		Northing:	548,073.21 usft
From:	Map	Easting:	592,066.43 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 30' 23.782 N
		Longitude:	104° 10' 7.587 W
		Grid Convergence:	0.09 °

Well:	51H		
Well Position	+N/-S	2,725.60 usft	Northing:
	+E/-W	-73.58 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	550,798.81 usft
		Ground Level:	3,202.00 usft
		Latitude:	32° 30' 50.755 N
		Longitude:	104° 10' 8.397 W

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	04/08/13	7.66	60.31	48,545

Design:	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	272.29

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
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,135.85	0.00	0.00	6,135.85	0.00	0.00	0.00	0.00	0.00	0.00	
6,787.98	91.30	272.29	6,545.00	16.71	-418.20	14.00	14.00	-13.45	272.29	
11,288.13	91.30	272.29	6,443.00	196.31	-4,913.60	0.00	0.00	0.00	0.00	PBHL(BFDH 51H)

LEAM Drilling Systems LLC

Planning Report

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Company:	DEVON ENERGY	TVD Reference:	GE 3202' + KB 25' @ 3227.00usft (Cactus 126)
Project:	Eddy County NM (NAD:83)	MD Reference:	GE 3202' + KB 25' @ 3227.00usft (Cactus 126)
Site:	Burton Flat Deep Unit	North Reference:	Grid
Well:	51H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OHF		
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 (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00

LEAM Drilling Systems LLC

Planning Report

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Company:	DEVON ENERGY	TVD Reference:	GE 3202' + KB 25' @ 3227.00usft (Cactus 126)
Project:	Eddy County NM (NAD-83)	MD Reference:	GE 3202' + KB 25' @ 3227.00usft (Cactus 126)
Site:	Burton Flat Deep Unit	North Reference:	Grid
Well:	51H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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 (°/100usft)	Turn Rate (°/100usft)	
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,100.00	0.00	0.00	6,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,135.85	0.00	0.00	6,135.85	0.00	0.00	0.00	0.00	0.00	0.00	
KOP: Start DLS 14.00 TFO 272.29										
6,150.00	1.98	272.29	6,150.00	0.01	-0.24	0.24	14.00	14.00	0.00	
6,175.00	5.48	272.29	6,174.94	0.07	-1.87	1.87	14.00	14.00	0.00	
6,200.00	8.98	272.29	6,199.74	0.20	-5.01	5.02	14.00	14.00	0.00	
6,225.00	12.48	272.29	6,224.30	0.39	-9.66	9.67	14.00	14.00	0.00	
6,250.00	15.98	272.29	6,248.53	0.63	-15.80	15.82	14.00	14.00	0.00	
6,275.00	19.48	272.29	6,272.33	0.94	-23.41	23.43	14.00	14.00	0.00	
6,300.00	22.98	272.29	6,295.63	1.30	-32.45	32.48	14.00	14.00	0.00	
6,325.00	26.48	272.29	6,318.34	1.71	-42.90	42.94	14.00	14.00	0.00	
6,350.00	29.98	272.29	6,340.36	2.19	-54.72	54.76	14.00	14.00	0.00	
6,375.00	33.48	272.29	6,361.62	2.71	-67.85	67.91	14.00	14.00	0.00	
6,400.00	36.98	272.29	6,382.04	3.29	-82.26	82.33	14.00	14.00	0.00	
6,425.00	40.48	272.29	6,401.54	3.91	-97.89	97.97	14.00	14.00	0.00	
6,450.00	43.98	272.29	6,420.05	4.58	-114.68	114.77	14.00	14.00	0.00	
6,475.00	47.48	272.29	6,437.49	5.30	-132.56	132.67	14.00	14.00	0.00	
6,500.00	50.98	272.29	6,453.82	6.05	-151.48	151.60	14.00	14.00	0.00	
6,525.00	54.48	272.29	6,468.95	6.85	-171.35	171.49	14.00	14.00	0.00	
6,550.00	57.98	272.29	6,482.85	7.68	-192.11	192.27	14.00	14.00	0.00	
6,575.00	61.48	272.29	6,495.45	8.54	-213.69	213.86	14.00	14.00	0.00	
6,600.00	64.98	272.29	6,506.70	9.43	-235.99	236.17	14.00	14.00	0.00	
6,625.00	68.48	272.29	6,516.58	10.34	-258.93	259.14	14.00	14.00	0.00	
6,650.00	71.98	272.29	6,525.03	11.28	-282.43	282.66	14.00	14.00	0.00	
6,675.00	75.48	272.29	6,532.04	12.24	-306.41	306.65	14.00	14.00	0.00	
6,700.00	78.98	272.29	6,537.56	13.21	-330.77	331.03	14.00	14.00	0.00	
6,725.00	82.48	272.29	6,541.59	14.20	-355.42	355.70	14.00	14.00	0.00	
6,750.00	85.98	272.29	6,544.10	15.19	-380.27	380.57	14.00	14.00	0.00	
6,775.00	89.48	272.29	6,545.09	16.19	-405.23	405.55	14.00	14.00	0.00	
6,787.98	91.30	272.29	6,545.00	16.71	-418.20	418.53	14.00	14.00	0.00	
EOC: Start 4500.15 hold at 6787.98 MD										
6,800.00	91.30	272.29	6,544.73	17.19	-430.20	430.54	0.00	0.00	0.00	
6,900.00	91.30	272.29	6,542.46	21.18	-530.10	530.52	0.00	0.00	0.00	
7,000.00	91.30	272.29	6,540.20	25.17	-629.99	630.49	0.00	0.00	0.00	
7,100.00	91.30	272.29	6,537.93	29.16	-729.89	730.47	0.00	0.00	0.00	
7,200.00	91.30	272.29	6,535.66	33.15	-829.78	830.44	0.00	0.00	0.00	
7,300.00	91.30	272.29	6,533.40	37.14	-929.67	930.42	0.00	0.00	0.00	
7,400.00	91.30	272.29	6,531.13	41.13	-1,029.57	1,030.39	0.00	0.00	0.00	
7,500.00	91.30	272.29	6,528.86	45.12	-1,129.46	1,130.36	0.00	0.00	0.00	
7,600.00	91.30	272.29	6,526.60	49.11	-1,229.36	1,230.34	0.00	0.00	0.00	
7,700.00	91.30	272.29	6,524.33	53.11	-1,329.25	1,330.31	0.00	0.00	0.00	
7,800.00	91.30	272.29	6,522.06	57.10	-1,429.15	1,430.29	0.00	0.00	0.00	
7,900.00	91.30	272.29	6,519.80	61.09	-1,529.04	1,530.26	0.00	0.00	0.00	

LEAM Drilling Systems LLC

Planning Report

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Company:	DEVONENERGY	TVD Reference:	GE 3202' + KB 25' @ 3227.00usft (Cactus 126)
Project:	Eddy County, NM (NAD-83)	MD Reference:	GE 3202' + KB 25' @ 3227.00usft (Cactus 126)
Site:	Burton Flat Deep Unit	North Reference:	Grd
Well:	51H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
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 (°/100usft)	Turn Rate (°/100usft)
8,000.00	91.30	272.29	6,517.53	65.08	-1,628.94	1,630.24	0.00	0.00	0.00
8,100.00	91.30	272.29	6,515.26	69.07	-1,728.83	1,730.21	0.00	0.00	0.00
8,200.00	91.30	272.29	6,513.00	73.06	-1,828.73	1,830.18	0.00	0.00	0.00
8,300.00	91.30	272.29	6,510.73	77.05	-1,928.62	1,930.16	0.00	0.00	0.00
8,400.00	91.30	272.29	6,508.46	81.04	-2,028.52	2,030.13	0.00	0.00	0.00
8,500.00	91.30	272.29	6,506.20	85.03	-2,128.41	2,130.11	0.00	0.00	0.00
8,600.00	91.30	272.29	6,503.93	89.02	-2,228.30	2,230.08	0.00	0.00	0.00
8,700.00	91.30	272.29	6,501.66	93.02	-2,328.20	2,330.06	0.00	0.00	0.00
8,800.00	91.30	272.29	6,499.40	97.01	-2,428.09	2,430.03	0.00	0.00	0.00
8,900.00	91.30	272.29	6,497.13	101.00	-2,527.99	2,530.01	0.00	0.00	0.00
9,000.00	91.30	272.29	6,494.86	104.99	-2,627.88	2,629.98	0.00	0.00	0.00
9,100.00	91.30	272.29	6,492.60	108.98	-2,727.78	2,729.95	0.00	0.00	0.00
9,200.00	91.30	272.29	6,490.33	112.97	-2,827.67	2,829.93	0.00	0.00	0.00
9,300.00	91.30	272.29	6,488.06	116.96	-2,927.57	2,929.90	0.00	0.00	0.00
9,400.00	91.30	272.29	6,485.80	120.95	-3,027.46	3,029.88	0.00	0.00	0.00
9,500.00	91.30	272.29	6,483.53	124.94	-3,127.36	3,129.85	0.00	0.00	0.00
9,600.00	91.30	272.29	6,481.26	128.93	-3,227.25	3,229.83	0.00	0.00	0.00
9,700.00	91.30	272.29	6,479.00	132.93	-3,327.15	3,329.80	0.00	0.00	0.00
9,800.00	91.30	272.29	6,476.73	136.92	-3,427.04	3,429.77	0.00	0.00	0.00
9,900.00	91.30	272.29	6,474.46	140.91	-3,526.93	3,529.75	0.00	0.00	0.00
10,000.00	91.30	272.29	6,472.20	144.90	-3,626.83	3,629.72	0.00	0.00	0.00
10,100.00	91.30	272.29	6,469.93	148.89	-3,726.72	3,729.70	0.00	0.00	0.00
10,200.00	91.30	272.29	6,467.66	152.88	-3,826.62	3,829.67	0.00	0.00	0.00
10,300.00	91.30	272.29	6,465.40	156.87	-3,926.51	3,929.65	0.00	0.00	0.00
10,400.00	91.30	272.29	6,463.13	160.86	-4,026.41	4,029.62	0.00	0.00	0.00
10,500.00	91.30	272.29	6,460.86	164.85	-4,126.30	4,129.59	0.00	0.00	0.00
10,600.00	91.30	272.29	6,458.60	168.84	-4,226.20	4,229.57	0.00	0.00	0.00
10,700.00	91.30	272.29	6,456.33	172.83	-4,326.09	4,329.54	0.00	0.00	0.00
10,800.00	91.30	272.29	6,454.06	176.83	-4,425.99	4,429.52	0.00	0.00	0.00
10,900.00	91.30	272.29	6,451.80	180.82	-4,525.88	4,529.49	0.00	0.00	0.00
11,000.00	91.30	272.29	6,449.53	184.81	-4,625.78	4,629.47	0.00	0.00	0.00
11,100.00	91.30	272.29	6,447.26	188.80	-4,725.67	4,729.44	0.00	0.00	0.00
11,200.00	91.30	272.29	6,445.00	192.79	-4,825.56	4,829.41	0.00	0.00	0.00
11,288.13	91.30	272.29	6,443.00	196.31	-4,913.60	4,917.52	0.00	0.00	0.00
TD at 11288.13 MD									

Design 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									
SHL(BFDH 51H)	0.00	0.00	0.00	0.00	0.00	550,798.81	591,992.85	32° 30' 50.755 N	104° 10' 8.397 W
- plan hits target center									
- Point									
PBHL(BFDH 51H)	-1.30	272.29	6,443.00	196.31	-4,913.60	550,995.12	587,079.25	32° 30' 52.769 N	104° 11' 5.780 W
- plan hits target center									
- Rectangle (sides W50.00 H4,500.15 D20.00)									

LEAM Drilling Systems LLC

Planning Report

Database:	EDM:5000.1:Single-User-Db	Local Co-ordinate Reference:	Well: 51H
Company:	DEVON ENERGY	TVD Reference:	GE:3202' + KB:25' @ 3227.00usft (Cactus 126)
Project:	Eddy County, NM (NAD-83)	MD Reference:	GE:3202' + KB:25' @ 3227.00usft (Cactus 126)
Site:	Burton Flat Deep Unit	North Reference:	Grid
Well:	51H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
6,135.85	6,135.85	0.00	0.00	KOP: Start DLS 14.00 TFO 272.29
6,787.98	6,545.00	16.71	-418.20	EOC: Start 4500.15 hold at 6787.98 MD
11,288.13	6,443.00	196.31	-4,913.60	TD at 11288.13' MD

DEVON ENERGY

Project: Eddy County, NM (NAD-83)

Site: Burton Flat Deep Unit

Well: 51H

Wellbore: OH

Design: Plan #2



Azimuths to Grid North

True North: -0.09°

Magnetic North: 7.57°

Magnetic Field

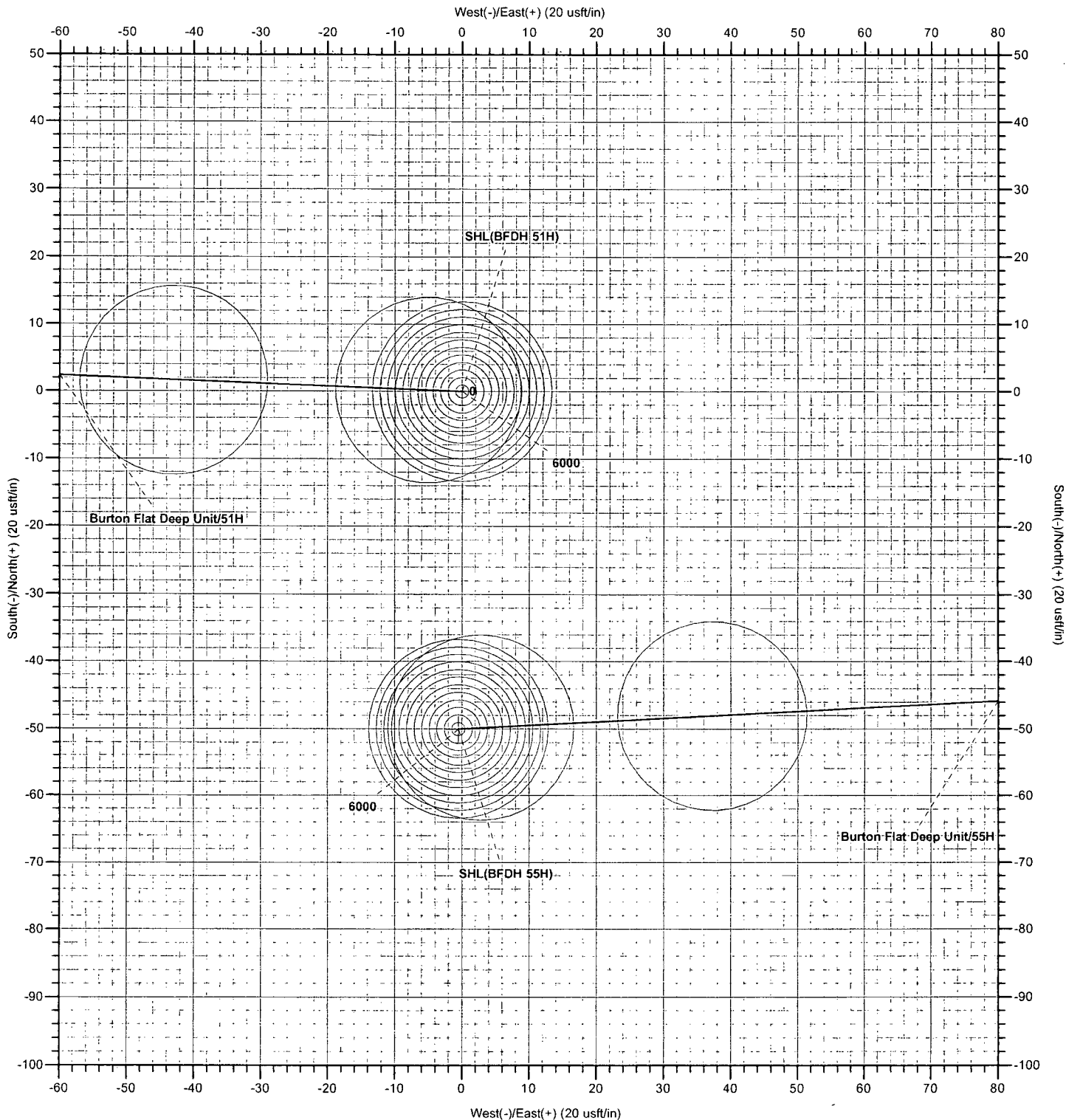
Strength: 48545.1snT

Dip Angle: 60.31°

Date: 04/08/2013

Model: IGRF2010

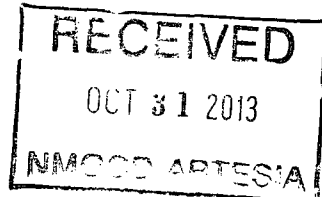
devon



LEAM DRILLING SYSTEMS LLC
2010 East Davis, Conroe, Texas 77301
Phone: 936/756-7577, Fax 936/756-7595

Plan: Plan #2 (51H/OH)
Burton Flat Deep Unit
Created By: Tyler Carlson Date: 12/23, April 12 2013
Date: _____
Approved: _____ Date: _____

LEAM Drilling Systems LLC
Anticollision Report



Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 51H
Project:	Eddy County, NM (NAD:83)	TVD Reference:	GE 3202' + KB 25' @ 3227.00usft (Cactus 126)
Reference Site:	Burton Flat Deep Unit	MD Reference:	GE 3202' + KB 25' @ 3227.00usft (Cactus 126)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	51H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OH	Database:	EDM:5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Reference:	Plan #2		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD + Stations Interval 100.00usft	Error Model:	ISCWSA
Depth Range:	0.00 to 11,288.13usft	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 2,000,000.00 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	04/12/13		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
0.00	11,288.13	Plan #2 (OH)	LEAM MWD	MWD - Standard	

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						
Burton Flat Deep Unit						
55H - OH - Plan #1	6,135.85	6,137.85	50.00	22.70	1.831	CC
55H - OH - Plan #1	6,175.00	6,176.95	50.09	22.62	1.823	ES, SF

Offset Design												Offset Site Error:		0.00 usft
Survey Program: 0-LEAMMWD												Offset Well Error:		0.00 usft
Reference		Offset		Semi Major Axis			Distance							
Measured	Vertical	Measured	Vertical	Reference	Offset	Highside	Offset Wellbore Centre		Between	Between	Minimum	Separation	Warning	
Depth	Depth	Depth	Depth			Toolface	+N/-S	+E/-W	Centres	Ellipses	Separation	Factor		
(usft)	(usft)	(usft)	(usft)	(usft)	(usft)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)			
0.00	0.00	2.00	0.00	0.00	0.00	-179.44	-50.00	-0.49	50.00					
100.00	100.00	102.00	100.00	0.08	0.09	-179.44	-50.00	-0.49	50.00	49.83	0.17	288.914		
200.00	200.00	202.00	200.00	0.31	0.31	-179.44	-50.00	-0.49	50.00	49.38	0.62	80.312		
300.00	300.00	302.00	300.00	0.53	0.54	-179.44	-50.00	-0.49	50.00	48.93	1.07	46.638		
400.00	400.00	402.00	400.00	0.76	0.76	-179.44	-50.00	-0.49	50.00	48.48	1.52	32.860		
500.00	500.00	502.00	500.00	0.98	0.99	-179.44	-50.00	-0.49	50.00	48.03	1.97	25.366		
600.00	600.00	602.00	600.00	1.21	1.21	-179.44	-50.00	-0.49	50.00	47.58	2.42	20.656		
700.00	700.00	702.00	700.00	1.43	1.44	-179.44	-50.00	-0.49	50.00	47.13	2.87	17.421		
800.00	800.00	802.00	800.00	1.66	1.66	-179.44	-50.00	-0.49	50.00	46.68	3.32	15.062		
900.00	900.00	902.00	900.00	1.88	1.89	-179.44	-50.00	-0.49	50.00	46.23	3.77	13.266		
1,000.00	1,000.00	1,002.00	1,000.00	2.11	2.11	-179.44	-50.00	-0.49	50.00	45.78	4.22	11.852		
1,100.00	1,100.00	1,102.00	1,100.00	2.33	2.34	-179.44	-50.00	-0.49	50.00	45.33	4.67	10.711		
1,200.00	1,200.00	1,202.00	1,200.00	2.56	2.56	-179.44	-50.00	-0.49	50.00	44.88	5.12	9.770		
1,300.00	1,300.00	1,302.00	1,300.00	2.78	2.79	-179.44	-50.00	-0.49	50.00	44.43	5.57	8.981		
1,400.00	1,400.00	1,402.00	1,400.00	3.01	3.01	-179.44	-50.00	-0.49	50.00	43.99	6.02	8.310		
1,500.00	1,500.00	1,502.00	1,500.00	3.23	3.24	-179.44	-50.00	-0.49	50.00	43.54	6.47	7.733		
1,600.00	1,600.00	1,602.00	1,600.00	3.46	3.46	-179.44	-50.00	-0.49	50.00	43.09	6.92	7.230		
1,700.00	1,700.00	1,702.00	1,700.00	3.68	3.69	-179.44	-50.00	-0.49	50.00	42.64	7.37	6.789		
1,800.00	1,800.00	1,802.00	1,800.00	3.91	3.91	-179.44	-50.00	-0.49	50.00	42.19	7.82	6.398		
1,900.00	1,900.00	1,902.00	1,900.00	4.13	4.13	-179.44	-50.00	-0.49	50.00	41.74	8.26	6.050		
2,000.00	2,000.00	2,002.00	2,000.00	4.35	4.36	-179.44	-50.00	-0.49	50.00	41.29	8.71	5.738		
2,100.00	2,100.00	2,102.00	2,100.00	4.58	4.58	-179.44	-50.00	-0.49	50.00	40.84	9.16	5.457		
2,200.00	2,200.00	2,202.00	2,200.00	4.80	4.81	-179.44	-50.00	-0.49	50.00	40.39	9.61	5.201		

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

LEAM Drilling Systems LLC

Anticollision Report

Company	DEVON ENERGY	Local Co-ordinate Reference	Well 51H
Project	Eddy County, NM (NAD-83)	TVD Reference	GE 3202' + KB 25' @ 3227.00usft (Cactus 126)
Reference Site	Burton Flat Deep Unit	MD Reference	GE 3202' + KB 25' @ 3227.00usft (Cactus 126)
Site Error	0.00 usft	North Reference	Grd
Reference Well	51H	Survey Calculation Method	Minimum Curvature
Well Error	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore	OH	Database	EDM 5000.1 Single User Db
Reference Design	Plan #2	Offset TVD Reference	Reference Datum

Offset Design - Burton Flat Deep Unit - 55H - OH - Plan #1													Offset Site Error
Survey Program: O-LEAM MWD													Offset Well Error
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference	Offset	Semi Major Axis	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning
				(usft)	(usft)	(usft)	(°)	+N/S (usft)	+E/W (usft)	(usft)	(usft)	(usft)	
2,300.00	2,300.00	2,302.00	2,300.00	5.03	5.03	-179.44		-50.00	-0.49	50.00	39.94	10.06	4.969
2,400.00	2,400.00	2,402.00	2,400.00	5.25	5.26	-179.44		-50.00	-0.49	50.00	39.49	10.51	4.757
2,500.00	2,500.00	2,502.00	2,500.00	5.48	5.48	-179.44		-50.00	-0.49	50.00	39.04	10.96	4.561
2,600.00	2,600.00	2,602.00	2,600.00	5.70	5.71	-179.44		-50.00	-0.49	50.00	38.59	11.41	4.382
2,700.00	2,700.00	2,702.00	2,700.00	5.93	5.93	-179.44		-50.00	-0.49	50.00	38.14	11.86	4.216
2,800.00	2,800.00	2,802.00	2,800.00	6.15	6.16	-179.44		-50.00	-0.49	50.00	37.69	12.31	4.062
2,900.00	2,900.00	2,902.00	2,900.00	6.38	6.38	-179.44		-50.00	-0.49	50.00	37.24	12.76	3.919
3,000.00	3,000.00	3,002.00	3,000.00	6.60	6.61	-179.44		-50.00	-0.49	50.00	36.79	13.21	3.785
3,100.00	3,100.00	3,102.00	3,100.00	6.83	6.83	-179.44		-50.00	-0.49	50.00	36.34	13.66	3.661
3,200.00	3,200.00	3,202.00	3,200.00	7.05	7.06	-179.44		-50.00	-0.49	50.00	35.89	14.11	3.544
3,300.00	3,300.00	3,302.00	3,300.00	7.28	7.28	-179.44		-50.00	-0.49	50.00	35.44	14.56	3.435
3,400.00	3,400.00	3,402.00	3,400.00	7.50	7.51	-179.44		-50.00	-0.49	50.00	34.99	15.01	3.332
3,500.00	3,500.00	3,502.00	3,500.00	7.73	7.73	-179.44		-50.00	-0.49	50.00	34.55	15.46	3.235
3,600.00	3,600.00	3,602.00	3,600.00	7.95	7.96	-179.44		-50.00	-0.49	50.00	34.10	15.91	3.143
3,700.00	3,700.00	3,702.00	3,700.00	8.18	8.18	-179.44		-50.00	-0.49	50.00	33.65	16.36	3.057
3,800.00	3,800.00	3,802.00	3,800.00	8.40	8.41	-179.44		-50.00	-0.49	50.00	33.20	16.81	2.975
3,900.00	3,900.00	3,902.00	3,900.00	8.63	8.63	-179.44		-50.00	-0.49	50.00	32.75	17.26	2.898
4,000.00	4,000.00	4,002.00	4,000.00	8.85	8.85	-179.44		-50.00	-0.49	50.00	32.30	17.70	2.824
4,100.00	4,100.00	4,102.00	4,100.00	9.07	9.08	-179.44		-50.00	-0.49	50.00	31.85	18.15	2.754
4,200.00	4,200.00	4,202.00	4,200.00	9.30	9.30	-179.44		-50.00	-0.49	50.00	31.40	18.60	2.688
4,300.00	4,300.00	4,302.00	4,300.00	9.52	9.53	-179.44		-50.00	-0.49	50.00	30.95	19.05	2.624
4,400.00	4,400.00	4,402.00	4,400.00	9.75	9.75	-179.44		-50.00	-0.49	50.00	30.50	19.50	2.564
4,500.00	4,500.00	4,502.00	4,500.00	9.97	9.98	-179.44		-50.00	-0.49	50.00	30.05	19.95	2.506
4,600.00	4,600.00	4,602.00	4,600.00	10.20	10.20	-179.44		-50.00	-0.49	50.00	29.60	20.40	2.451
4,700.00	4,700.00	4,702.00	4,700.00	10.42	10.43	-179.44		-50.00	-0.49	50.00	29.15	20.85	2.398
4,800.00	4,800.00	4,802.00	4,800.00	10.65	10.65	-179.44		-50.00	-0.49	50.00	28.70	21.30	2.347
4,900.00	4,900.00	4,902.00	4,900.00	10.87	10.88	-179.44		-50.00	-0.49	50.00	28.25	21.75	2.299
5,000.00	5,000.00	5,002.00	5,000.00	11.10	11.10	-179.44		-50.00	-0.49	50.00	27.80	22.20	2.252
5,100.00	5,100.00	5,102.00	5,100.00	11.32	11.33	-179.44		-50.00	-0.49	50.00	27.35	22.65	2.208
5,200.00	5,200.00	5,202.00	5,200.00	11.55	11.55	-179.44		-50.00	-0.49	50.00	26.90	23.10	2.165
5,300.00	5,300.00	5,302.00	5,300.00	11.77	11.78	-179.44		-50.00	-0.49	50.00	26.45	23.55	2.123
5,400.00	5,400.00	5,402.00	5,400.00	12.00	12.00	-179.44		-50.00	-0.49	50.00	26.00	24.00	2.084
5,500.00	5,500.00	5,502.00	5,500.00	12.22	12.23	-179.44		-50.00	-0.49	50.00	25.55	24.45	2.045
5,600.00	5,600.00	5,602.00	5,600.00	12.45	12.45	-179.44		-50.00	-0.49	50.00	25.11	24.90	2.008
5,700.00	5,700.00	5,702.00	5,700.00	12.67	12.68	-179.44		-50.00	-0.49	50.00	24.66	25.35	1.973
5,800.00	5,800.00	5,802.00	5,800.00	12.90	12.90	-179.44		-50.00	-0.49	50.00	24.21	25.80	1.938
5,900.00	5,900.00	5,902.00	5,900.00	13.12	13.13	-179.44		-50.00	-0.49	50.00	23.76	26.25	1.905
6,000.00	6,000.00	6,002.00	6,000.00	13.35	13.35	-179.44		-50.00	-0.49	50.00	23.31	26.70	1.873
6,100.00	6,100.00	6,102.00	6,100.00	13.57	13.57	-179.44		-50.00	-0.49	50.00	22.86	27.14	1.842
6,135.85	6,135.85	6,137.85	6,135.85	13.65	13.66	-179.44		-50.00	-0.49	50.00	22.70	27.31	1.831 CC
6,150.00	6,150.00	6,152.00	6,150.00	13.68	13.69	-92.01		-50.00	-0.49	50.01	22.64	27.37	1.827
6,175.00	6,174.94	6,176.95	6,174.95	13.73	13.74	-93.87		-50.00	-0.47	50.09	22.62	27.47	1.823 ES, SF
6,200.00	6,199.74	6,201.56	6,199.53	13.78	13.79	-98.44		-49.95	0.52	50.45	22.89	27.57	1.830
6,225.00	6,224.30	6,225.00	6,222.86	13.83	13.84	-105.57		-49.83	2.83	51.76	24.14	27.63	1.874
6,250.00	6,248.53	6,247.36	6,244.95	13.89	13.89	-114.17		-49.65	6.28	55.03	27.42	27.60	1.993
6,275.00	6,272.33	6,267.80	6,264.95	13.94	13.93	-122.63		-49.43	10.48	61.15	33.71	27.44	2.228
6,300.00	6,295.63	6,286.30	6,282.85	14.00	13.97	-129.94		-49.18	15.13	70.54	43.41	27.13	2.600
6,325.00	6,318.34	6,302.75	6,298.57	14.06	14.00	-135.65		-48.93	19.95	83.10	56.41	26.69	3.113
6,350.00	6,340.36	6,317.13	6,312.15	14.12	14.03	-139.79		-48.69	24.67	98.42	72.25	26.17	3.761
6,375.00	6,361.62	6,329.49	6,323.69	14.19	14.06	-142.50		-48.45	29.11	116.01	90.42	25.59	4.534
6,400.00	6,382.04	6,339.94	6,333.33	14.27	14.09	-143.97		-48.24	33.13	135.44	110.43	25.00	5.416

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 51H:
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3202' + KB 25' @ 3227'00usft (Cactus 126)
Reference Site:	Burton Flat Deep Unit	MD Reference:	GE 3202' + KB 25' @ 3227'00usft (Cactus 126)
Site Error:	0.00 usft	North Reference:	Grid:
Reference Well:	51H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User-Db
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design - Burton Flat Deep Unit - 55H - OH - Plan #1													Offset Site Error:	0.00 usft
Survey Program: 70-LEAM MWD													Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Separation Factor		Warning				
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	+E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor		
6,425.00	6,401.54	6,350.00	6,342.51	14.35	14.11	-144.81	-48.03	37.23	156.33	131.91	24.42	6.401		
6,450.00	6,420.05	6,355.58	6,347.56	14.45	14.12	-143.30	-47.91	39.61	178.36	154.25	24.11	7.398		
6,475.00	6,437.49	6,361.06	6,352.49	14.56	14.14	-140.89	-47.78	42.00	201.28	177.29	23.99	8.389		
6,500.00	6,453.82	6,365.15	6,356.15	14.68	14.15	-136.48	-47.69	43.84	224.89	200.54	24.35	9.236		
6,525.00	6,468.95	6,368.00	6,358.68	14.82	14.15	-129.09	-47.62	45.13	248.98	223.52	25.46	9.779		
6,550.00	6,482.85	6,369.73	6,360.22	14.97	14.16	-117.02	-47.58	45.93	273.42	245.89	27.53	9.933		
6,575.00	6,495.45	6,375.00	6,364.87	15.15	14.17	-104.03	-47.45	48.40	298.11	268.76	29.35	10.157		
6,600.00	6,506.70	6,375.00	6,364.87	15.34	14.17	-80.77	-47.45	48.40	322.84	292.84	30.00	10.762		
6,625.00	6,516.58	6,369.23	6,359.77	15.55	14.16	-53.87	-47.59	45.70	347.48	321.63	25.85	13.442		
6,650.00	6,525.03	6,367.47	6,358.21	15.79	14.15	-38.91	-47.63	44.89	372.08	350.66	21.42	17.372		
6,675.00	6,532.04	6,365.05	6,356.06	16.04	14.15	-29.23	-47.69	43.79	396.49	378.72	17.77	22.314		
6,700.00	6,537.56	6,362.03	6,353.36	16.31	14.14	-22.88	-47.76	42.44	420.63	405.62	15.01	28.020		
6,725.00	6,541.59	6,358.48	6,350.17	16.60	14.13	-18.54	-47.84	40.86	444.44	431.49	12.96	34.304		
6,750.00	6,544.10	6,350.00	6,342.51	16.91	14.11	-15.16	-48.03	37.23	467.91	456.57	11.34	41.255		
6,775.00	6,545.09	6,350.00	6,342.51	17.23	14.11	-13.18	-48.03	37.23	490.85	480.38	10.46	46.908		
6,787.98	6,545.00	6,350.00	6,342.51	17.40	14.11	-12.33	-48.03	37.23	502.60	492.43	10.17	49.421		
6,800.00	6,544.73	6,350.00	6,342.51	17.56	14.11	-12.33	-48.03	37.23	513.46	503.21	10.25	50.110		
6,900.00	6,542.46	6,325.00	6,319.51	19.05	14.05	-11.38	-48.54	27.46	604.51	593.96	10.55	57.319		
7,000.00	6,540.20	6,313.21	6,308.47	20.74	14.02	-10.97	-48.76	23.34	697.13	686.02	11.11	62.747		
7,100.00	6,537.93	6,300.00	6,295.96	22.58	14.00	-10.54	-48.98	19.10	790.97	779.27	11.70	67.609		
7,200.00	6,535.66	6,290.52	6,286.91	24.54	13.98	-10.25	-49.12	16.31	885.73	873.36	12.37	71.608		
7,300.00	6,533.40	6,275.00	6,271.94	26.59	13.94	-9.79	-49.34	12.19	981.30	968.32	12.98	75.625		
7,400.00	6,531.13	6,275.00	6,271.94	28.71	13.94	-9.79	-49.34	12.19	1,077.33	1,063.51	13.81	77.995		
7,500.00	6,528.86	6,275.00	6,271.94	30.89	13.94	-9.79	-49.34	12.19	1,174.01	1,159.35	14.67	80.052		
7,600.00	6,526.60	6,260.67	6,258.00	33.12	13.91	-9.40	-49.51	8.90	1,270.89	1,255.58	15.31	83.012		
7,700.00	6,524.33	6,250.00	6,247.54	35.38	13.89	-9.12	-49.62	6.76	1,368.25	1,352.24	16.01	85.447		
7,800.00	6,522.06	6,250.00	6,247.54	37.68	13.89	-9.12	-49.62	6.76	1,465.81	1,448.93	16.88	86.848		
7,900.00	6,519.80	6,250.00	6,247.54	40.00	13.89	-9.12	-49.62	6.76	1,563.67	1,545.93	17.75	88.098		
8,000.00	6,517.53	6,250.00	6,247.54	42.34	13.89	-9.12	-49.62	6.76	1,661.80	1,643.17	18.63	89.220		
8,100.00	6,515.26	6,238.43	6,236.15	44.70	13.87	-8.84	-49.73	4.76	1,759.93	1,740.62	19.31	91.148		
8,200.00	6,513.00	6,225.00	6,222.86	47.08	13.84	-8.52	-49.83	2.83	1,858.46	1,838.50	19.96	93.108		
8,300.00	6,510.73	6,225.00	6,222.86	49.47	13.84	-8.52	-49.83	2.83	1,956.91	1,936.07	20.83	93.939		
8,400.00	6,508.46	6,225.00	6,222.86	51.87	13.84	-8.52	-49.83	2.83	2,055.50	2,033.79	21.71	94.699		
8,500.00	6,506.20	6,225.00	6,222.86	54.27	13.84	-8.52	-49.83	2.83	2,154.22	2,131.64	22.58	95.397		
8,600.00	6,503.93	6,225.00	6,222.86	56.69	13.84	-8.52	-49.83	2.83	2,253.05	2,229.59	23.46	96.039		
8,700.00	6,501.66	6,225.00	6,222.86	59.12	13.84	-8.52	-49.83	2.83	2,351.99	2,327.65	24.34	96.632		
8,800.00	6,499.40	6,225.00	6,222.86	61.55	13.84	-8.52	-49.83	2.83	2,451.01	2,425.79	25.22	97.182		
8,900.00	6,497.13	6,225.00	6,222.86	63.99	13.84	-8.52	-49.83	2.83	2,550.10	2,524.00	26.10	97.693		
9,000.00	6,494.86	6,225.00	6,222.86	66.43	13.84	-8.52	-49.83	2.83	2,649.27	2,622.28	26.99	98.169		
9,100.00	6,492.60	6,225.00	6,222.86	68.88	13.84	-8.52	-49.83	2.83	2,748.49	2,720.62	27.87	98.613		
9,200.00	6,490.33	6,213.21	6,211.14	71.33	13.82	-8.25	-49.90	1.50	2,847.58	2,819.08	28.50	99.921		
9,300.00	6,488.06	6,211.73	6,209.67	73.79	13.81	-8.22	-49.90	1.36	2,946.86	2,917.51	29.35	100.421		
9,400.00	6,485.80	6,200.00	6,197.98	76.25	13.79	-7.97	-49.95	0.41	3,046.32	3,016.35	29.97	101.650		
9,500.00	6,483.53	6,200.00	6,197.98	78.71	13.79	-7.97	-49.95	0.41	3,145.64	3,114.80	30.84	101.993		
9,600.00	6,481.26	6,200.00	6,197.98	81.17	13.79	-7.97	-49.95	0.41	3,245.01	3,213.29	31.72	102.316		
9,700.00	6,479.00	6,200.00	6,197.98	83.64	13.79	-7.97	-49.95	0.41	3,344.41	3,311.82	32.59	102.622		
9,800.00	6,476.73	6,200.00	6,197.98	86.11	13.79	-7.97	-49.95	0.41	3,443.84	3,410.38	33.46	102.911		
9,900.00	6,474.46	6,200.00	6,197.98	88.58	13.79	-7.97	-49.95	0.41	3,543.31	3,508.97	34.34	103.185		
10,000.00	6,472.20	6,200.00	6,197.98	91.06	13.79	-7.97	-49.95	0.41	3,642.81	3,607.59	35.22	103.444		
10,100.00	6,469.93	6,200.00	6,197.98	93.53	13.79	-7.97	-49.95	0.41	3,742.33	3,706.24	36.09	103.691		

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

LEAM Drilling Systems LLC

Anticollision Report

Company:	DEVON ENERGY	Local Co-ordinate Reference:	Well 51H
Project:	Eddy County, NM (NAD-83)	TVD Reference:	GE 3202' + KB 25' @ 3227.00usft (Cactus 126)
Reference Site:	Burton Flat Deep Unit	MD Reference:	GE 3202' + KB 25' @ 3227.00usft (Cactus 126)
Site Error:	0.00 usft	North Reference:	Grid
Reference Well:	51H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.00 usft	Output errors are at:	2.00 sigma
Reference Wellbore:	OH	Database:	EDM 5000.1 Single User Db
Reference Design:	Plan #2	Offset TVD Reference:	Reference Datum

Offset Design: Burton Flat Deep Unit - 55H - OH - Plan #1												Offset Site Error:	0.00 usft
Survey Program: 0-LEAM MWD												Offset Well Error:	0.00 usft
Reference	Offset	Semi Major Axis		Distance		Minimum Separation		Warning					
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N-S (usft)	Offset Wellbore Centre +E-W (usft)	Between Centres (usft)	Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
10,200.00	6,467.66	6,200.00	6,197.98	96.01	13.79	-7.97	-49.95	0.41	3,841.88	3,804.91	36.97	103.926	
10,300.00	6,465.40	6,200.00	6,197.98	98.49	13.79	-7.97	-49.95	0.41	3,941.45	3,903.61	37.84	104.150	
10,400.00	6,463.13	6,200.00	6,197.98	100.97	13.79	-7.97	-49.95	0.41	4,041.04	4,002.32	38.72	104.363	
10,500.00	6,460.86	6,200.00	6,197.98	103.45	13.79	-7.97	-49.95	0.41	4,140.66	4,101.06	39.60	104.567	
10,600.00	6,458.60	6,200.00	6,197.98	105.94	13.79	-7.97	-49.95	0.41	4,240.29	4,199.81	40.48	104.762	
10,700.00	6,456.33	6,200.00	6,197.98	108.42	13.79	-7.97	-49.95	0.41	4,339.93	4,298.58	41.35	104.948	
10,800.00	6,454.06	6,200.00	6,197.98	110.90	13.79	-7.97	-49.95	0.41	4,439.60	4,397.37	42.23	105.126	
10,900.00	6,451.80	6,200.00	6,197.98	113.39	13.79	-7.97	-49.95	0.41	4,539.28	4,496.17	43.11	105.297	
11,000.00	6,449.53	6,200.00	6,197.98	115.88	13.79	-7.97	-49.95	0.41	4,638.97	4,594.98	43.99	105.461	
11,100.00	6,447.26	6,200.00	6,197.98	118.37	13.79	-7.97	-49.95	0.41	4,738.67	4,693.81	44.87	105.618	
11,200.00	6,445.00	6,200.00	6,197.98	120.85	13.79	-7.97	-49.95	0.41	4,838.39	4,792.64	45.74	105.769	
11,288.13	6,443.00	6,200.00	6,197.98	123.05	13.79	-7.97	-49.95	0.41	4,926.28	4,879.76	46.52	105.898	

MD	INC	AZI	TVD	NS	EW	DLS	BUILD	TURN	VSECT
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
	100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00
	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00
	300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00
	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00
	500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00
	600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00
	700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00
	800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00
	900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00
	1000.00	0.00	0.00	1000.00	0.00	0.00	0.00	0.00	0.00
	1100.00	0.00	0.00	1100.00	0.00	0.00	0.00	0.00	0.00
	1200.00	0.00	0.00	1200.00	0.00	0.00	0.00	0.00	0.00
	1300.00	0.00	0.00	1300.00	0.00	0.00	0.00	0.00	0.00
	1400.00	0.00	0.00	1400.00	0.00	0.00	0.00	0.00	0.00
	1500.00	0.00	0.00	1500.00	0.00	0.00	0.00	0.00	0.00
	1600.00	0.00	0.00	1600.00	0.00	0.00	0.00	0.00	0.00
	1700.00	0.00	0.00	1700.00	0.00	0.00	0.00	0.00	0.00
	1800.00	0.00	0.00	1800.00	0.00	0.00	0.00	0.00	0.00
	1900.00	0.00	0.00	1900.00	0.00	0.00	0.00	0.00	0.00
	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00
	2100.00	0.00	0.00	2100.00	0.00	0.00	0.00	0.00	0.00
	2200.00	0.00	0.00	2200.00	0.00	0.00	0.00	0.00	0.00
	2300.00	0.00	0.00	2300.00	0.00	0.00	0.00	0.00	0.00
	2400.00	0.00	0.00	2400.00	0.00	0.00	0.00	0.00	0.00
	2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00
	2600.00	0.00	0.00	2600.00	0.00	0.00	0.00	0.00	0.00
	2700.00	0.00	0.00	2700.00	0.00	0.00	0.00	0.00	0.00
	2800.00	0.00	0.00	2800.00	0.00	0.00	0.00	0.00	0.00
	2900.00	0.00	0.00	2900.00	0.00	0.00	0.00	0.00	0.00
	3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.00
	3100.00	0.00	0.00	3100.00	0.00	0.00	0.00	0.00	0.00
	3200.00	0.00	0.00	3200.00	0.00	0.00	0.00	0.00	0.00
	3300.00	0.00	0.00	3300.00	0.00	0.00	0.00	0.00	0.00
	3400.00	0.00	0.00	3400.00	0.00	0.00	0.00	0.00	0.00
	3500.00	0.00	0.00	3500.00	0.00	0.00	0.00	0.00	0.00
	3600.00	0.00	0.00	3600.00	0.00	0.00	0.00	0.00	0.00
	3700.00	0.00	0.00	3700.00	0.00	0.00	0.00	0.00	0.00
	3800.00	0.00	0.00	3800.00	0.00	0.00	0.00	0.00	0.00
	3900.00	0.00	0.00	3900.00	0.00	0.00	0.00	0.00	0.00
	4000.00	0.00	0.00	4000.00	0.00	0.00	0.00	0.00	0.00
	4100.00	0.00	0.00	4100.00	0.00	0.00	0.00	0.00	0.00
	4200.00	0.00	0.00	4200.00	0.00	0.00	0.00	0.00	0.00
	4300.00	0.00	0.00	4300.00	0.00	0.00	0.00	0.00	0.00
	4400.00	0.00	0.00	4400.00	0.00	0.00	0.00	0.00	0.00
	4500.00	0.00	0.00	4500.00	0.00	0.00	0.00	0.00	0.00

4600.00	0.00	0.00	4600.00	0.00	0.00	0.00	0.00	0.00	0.00
4700.00	0.00	0.00	4700.00	0.00	0.00	0.00	0.00	0.00	0.00
4800.00	0.00	0.00	4800.00	0.00	0.00	0.00	0.00	0.00	0.00
4900.00	0.00	0.00	4900.00	0.00	0.00	0.00	0.00	0.00	0.00
5000.00	0.00	0.00	5000.00	0.00	0.00	0.00	0.00	0.00	0.00
5100.00	0.00	0.00	5100.00	0.00	0.00	0.00	0.00	0.00	0.00
5200.00	0.00	0.00	5200.00	0.00	0.00	0.00	0.00	0.00	0.00
5300.00	0.00	0.00	5300.00	0.00	0.00	0.00	0.00	0.00	0.00
5400.00	0.00	0.00	5400.00	0.00	0.00	0.00	0.00	0.00	0.00
5500.00	0.00	0.00	5500.00	0.00	0.00	0.00	0.00	0.00	0.00
5600.00	0.00	0.00	5600.00	0.00	0.00	0.00	0.00	0.00	0.00
5700.00	0.00	0.00	5700.00	0.00	0.00	0.00	0.00	0.00	0.00
5800.00	0.00	0.00	5800.00	0.00	0.00	0.00	0.00	0.00	0.00
5900.00	0.00	0.00	5900.00	0.00	0.00	0.00	0.00	0.00	0.00
6000.00	0.00	0.00	6000.00	0.00	0.00	0.00	0.00	0.00	0.00
6100.00	0.00	0.00	6100.00	0.00	0.00	0.00	0.00	0.00	0.00
6135.85	0.00	0.00	6135.85	0.00	0.00	0.00	0.00	0.00	0.00
6150.00	1.98	272.29	6150.00	0.01	-0.24	14.00	14.00	0.00	0.24
6175.00	5.48	272.29	6174.94	0.07	-1.87	14.00	14.00	0.00	1.87
6200.00	8.98	272.29	6199.74	0.20	-5.01	14.00	14.00	0.00	5.02
6225.00	12.48	272.29	6224.30	0.39	-9.66	14.00	14.00	0.00	9.67
6250.00	15.98	272.29	6248.53	0.63	-15.80	14.00	14.00	0.00	15.82
6275.00	19.48	272.29	6272.33	0.94	-23.41	14.00	14.00	0.00	23.43
6300.00	22.98	272.29	6295.63	1.30	-32.45	14.00	14.00	0.00	32.48
6325.00	26.48	272.29	6318.34	1.71	-42.90	14.00	14.00	0.00	42.94
6350.00	29.98	272.29	6340.36	2.19	-54.72	14.00	14.00	0.00	54.76
6375.00	33.48	272.29	6361.62	2.71	-67.85	14.00	14.00	0.00	67.91
6400.00	36.98	272.29	6382.04	3.29	-82.26	14.00	14.00	0.00	82.33
6425.00	40.48	272.29	6401.54	3.91	-97.89	14.00	14.00	0.00	97.97
6450.00	43.98	272.29	6420.05	4.58	-114.68	14.00	14.00	0.00	114.77
6475.00	47.48	272.29	6437.49	5.30	-132.56	14.00	14.00	0.00	132.67
6500.00	50.98	272.29	6453.82	6.05	-151.48	14.00	14.00	0.00	151.60
6525.00	54.48	272.29	6468.95	6.85	-171.35	14.00	14.00	0.00	171.49
6550.00	57.98	272.29	6482.85	7.68	-192.11	14.00	14.00	0.00	192.27
6575.00	61.48	272.29	6495.45	8.54	-213.69	14.00	14.00	0.00	213.86
6600.00	64.98	272.29	6506.70	9.43	-235.99	14.00	14.00	0.00	236.17
6625.00	68.48	272.29	6516.58	10.34	-258.93	14.00	14.00	0.00	259.14
6650.00	71.98	272.29	6525.03	11.28	-282.43	14.00	14.00	0.00	282.66
6675.00	75.48	272.29	6532.04	12.24	-306.41	14.00	14.00	0.00	306.65
6700.00	78.98	272.29	6537.56	13.21	-330.77	14.00	14.00	0.00	331.03
6725.00	82.48	272.29	6541.59	14.20	-355.42	14.00	14.00	0.00	355.70
6750.00	85.98	272.29	6544.10	15.19	-380.27	14.00	14.00	0.00	380.57
6775.00	89.48	272.29	6545.09	16.19	-405.23	14.00	14.00	0.00	405.55
6787.98	91.30	272.29	6545.00	16.71	-418.20	14.00	14.00	0.00	418.53
6800.00	91.30	272.29	6544.73	17.19	-430.20	0.00	0.00	0.00	430.54
6900.00	91.30	272.29	6542.46	21.18	-530.10	0.00	0.00	0.00	530.52
7000.00	91.30	272.29	6540.19	25.17	-629.99	0.00	0.00	0.00	630.49

7100.00	91.30	272.29	6537.93	29.16	-729.89	0.00	0.00	0.00	730.47
7200.00	91.30	272.29	6535.66	33.15	-829.78	0.00	0.00	0.00	830.44
7300.00	91.30	272.29	6533.40	37.14	-929.67	0.00	0.00	0.00	930.42
7400.00	91.30	272.29	6531.13	41.13	-1029.57	0.00	0.00	0.00	1030.39
7500.00	91.30	272.29	6528.86	45.12	-1129.46	0.00	0.00	0.00	1130.36
7600.00	91.30	272.29	6526.60	49.11	-1229.36	0.00	0.00	0.00	1230.34
7700.00	91.30	272.29	6524.33	53.11	-1329.25	0.00	0.00	0.00	1330.31
7800.00	91.30	272.29	6522.06	57.10	-1429.15	0.00	0.00	0.00	1430.29
7900.00	91.30	272.29	6519.80	61.09	-1529.04	0.00	0.00	0.00	1530.26
8000.00	91.30	272.29	6517.53	65.08	-1628.94	0.00	0.00	0.00	1630.24
8100.00	91.30	272.29	6515.26	69.07	-1728.83	0.00	0.00	0.00	1730.21
8200.00	91.30	272.29	6513.00	73.06	-1828.73	0.00	0.00	0.00	1830.18
8300.00	91.30	272.29	6510.73	77.05	-1928.62	0.00	0.00	0.00	1930.16
8400.00	91.30	272.29	6508.46	81.04	-2028.52	0.00	0.00	0.00	2030.13
8500.00	91.30	272.29	6506.20	85.03	-2128.41	0.00	0.00	0.00	2130.11
8600.00	91.30	272.29	6503.93	89.02	-2228.30	0.00	0.00	0.00	2230.08
8700.00	91.30	272.29	6501.66	93.02	-2328.20	0.00	0.00	0.00	2330.06
8800.00	91.30	272.29	6499.40	97.01	-2428.09	0.00	0.00	0.00	2430.03
8900.00	91.30	272.29	6497.13	101.00	-2527.99	0.00	0.00	0.00	2530.01
9000.00	91.30	272.29	6494.86	104.99	-2627.88	0.00	0.00	0.00	2629.98
9100.00	91.30	272.29	6492.60	108.98	-2727.78	0.00	0.00	0.00	2729.95
9200.00	91.30	272.29	6490.33	112.97	-2827.67	0.00	0.00	0.00	2829.93
9300.00	91.30	272.29	6488.06	116.96	-2927.57	0.00	0.00	0.00	2929.90
9400.00	91.30	272.29	6485.80	120.95	-3027.46	0.00	0.00	0.00	3029.88
9500.00	91.30	272.29	6483.53	124.94	-3127.36	0.00	0.00	0.00	3129.85
9600.00	91.30	272.29	6481.26	128.93	-3227.25	0.00	0.00	0.00	3229.83
9700.00	91.30	272.29	6479.00	132.93	-3327.15	0.00	0.00	0.00	3329.80
9800.00	91.30	272.29	6476.73	136.92	-3427.04	0.00	0.00	0.00	3429.77
9900.00	91.30	272.29	6474.46	140.91	-3526.93	0.00	0.00	0.00	3529.75
10000.00	91.30	272.29	6472.20	144.90	-3626.83	0.00	0.00	0.00	3629.72
10100.00	91.30	272.29	6469.93	148.89	-3726.72	0.00	0.00	0.00	3729.70
10200.00	91.30	272.29	6467.66	152.88	-3826.62	0.00	0.00	0.00	3829.67
10300.00	91.30	272.29	6465.40	156.87	-3926.51	0.00	0.00	0.00	3929.65
10400.00	91.30	272.29	6463.13	160.86	-4026.41	0.00	0.00	0.00	4029.62
10500.00	91.30	272.29	6460.86	164.85	-4126.30	0.00	0.00	0.00	4129.59
10600.00	91.30	272.29	6458.60	168.84	-4226.20	0.00	0.00	0.00	4229.57
10700.00	91.30	272.29	6456.33	172.83	-4326.09	0.00	0.00	0.00	4329.54
10800.00	91.30	272.29	6454.06	176.83	-4425.99	0.00	0.00	0.00	4429.52
10900.00	91.30	272.29	6451.80	180.82	-4525.88	0.00	0.00	0.00	4529.49
11000.00	91.30	272.29	6449.53	184.81	-4625.78	0.00	0.00	0.00	4629.47
11100.00	91.30	272.29	6447.26	188.80	-4725.67	0.00	0.00	0.00	4729.44
11200.00	91.30	272.29	6445.00	192.79	-4825.56	0.00	0.00	0.00	4829.41
11288.13	91.30	272.29	6443.00	196.31	-4913.60	0.00	0.00	0.00	4917.52