

Devon Energy

Project: Lea County, NM (NAD-83)
Site: Cotton Draw Unit
Well: 506H
Wellbore: OH
Design: Plan #1

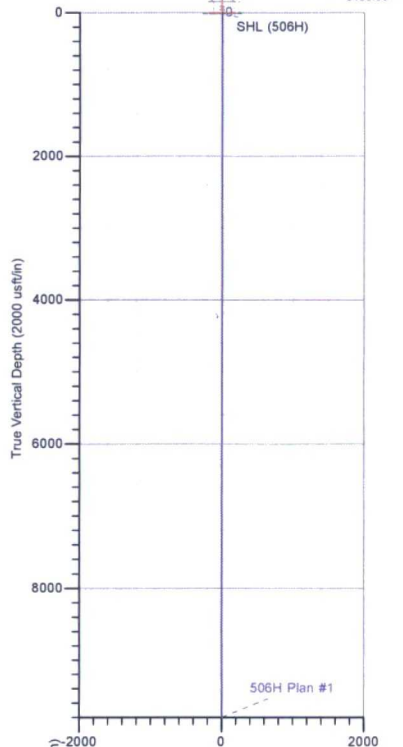


Azimuths to Grid North
True North: -0.33°
Magnetic North: 6.56°

Magnetic Field
Strength: 48054.3snT
Dip Angle: 59.87°
Date: 3/30/2017
Model: HDGM

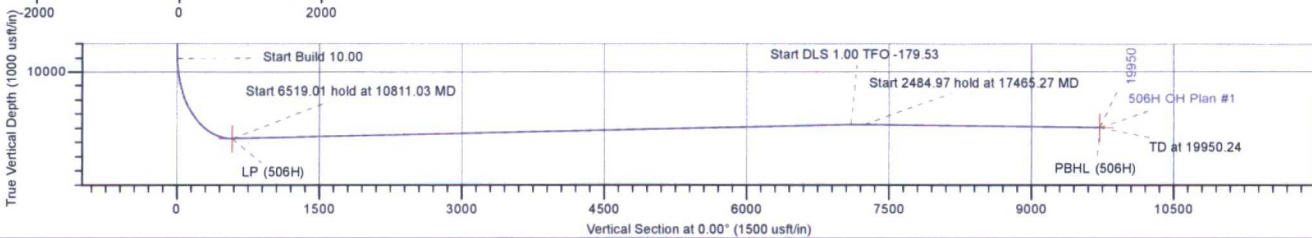
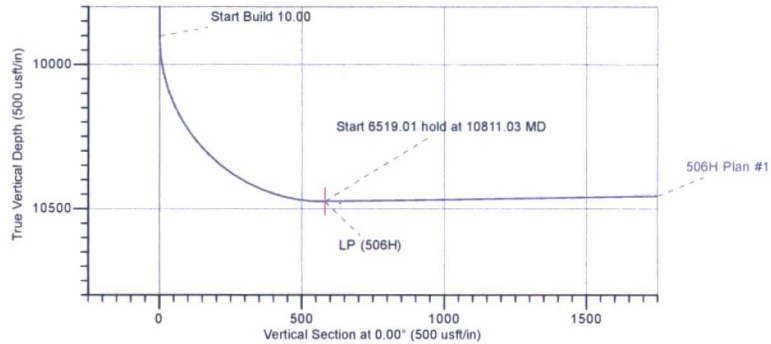
PROJECT DETAILS: Lea County, NM (NAD-83)

Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone



SECTION DETAILS									
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9902.23	0.00	0.00	9902.23	0.00	0.00	0.00	0.00	0.00	Start Build 10.00
10811.03	90.88	359.95	10475.12	581.76	-0.51	10.00	359.95	581.76	Start 6519.01 hold at 10811.03 MD
17330.04	90.88	359.95	10375.00	7100.00	-6.20	0.00	0.00	7100.00	Start DLS 1.00 TFO -179.53
17465.27	89.53	359.94	10374.52	7235.22	-6.33	1.00	-179.53	7235.22	Start 2484.97 hold at 17465.27 MD
19950.24	89.53	359.94	10395.00	9720.11	-8.98	0.00	0.00	9720.11	TD at 19950.24

DESIGN TARGET DETAILS						
Name	TVD	+N/-S	+E/-W	Latitude	Longitude	
LP (506H)	10475.12	581.76	-0.51	32° 7' 34.190 N	103° 43' 11.717 W	
PBHL (506H)	10395.00	9720.11	-8.98	32° 9' 4.620 N	103° 43' 11.210 W	
SHL (506H)	0.00	0.00	0.00	32° 7' 28.433 N	103° 43' 11.749 W	



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

Plan: Plan #1 (506H/OH)
Cotton Draw Unit
Created By: Dustin Aut
Date: 14-20, March 30 2017
Approved: _____ Date: _____



Devon Energy

Project: Lea County, NM (NAD-83)
Site: Cotton Draw Unit
Well: 506H
Wellbore: OH
Design: Plan #1



Azimuths to Grid North
True North: -0.33°
Magnetic North: 6.56°

Magnetic Field
Strength: 48054.3nT
Dip Angle: 59.87°
Date: 3/30/2017
Model: HDGM



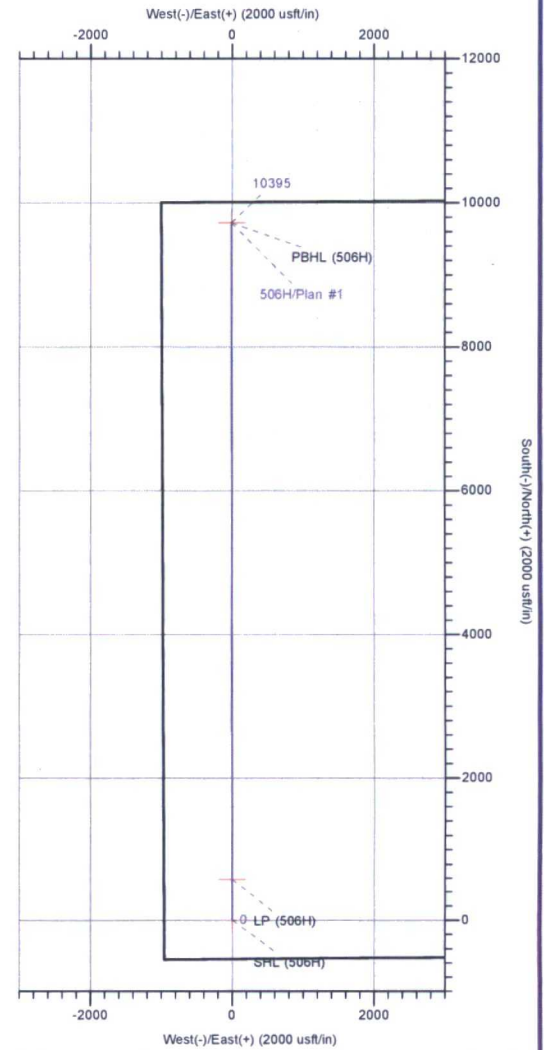
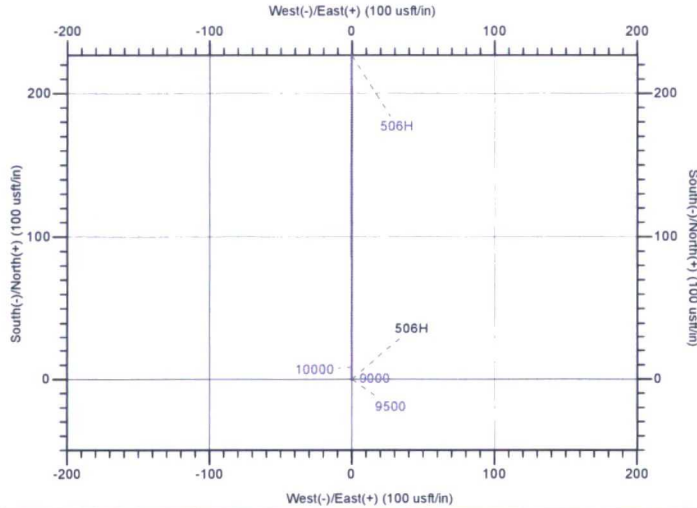
PROJECT DETAILS: Lea County, NM (NAD-83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSecl	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
9902.23	0.00	0.00	9902.23	0.00	0.00	0.00	0.00	0.00	
10811.03	90.88	359.95	10475.12	581.76	-0.51	10.00	359.95	581.76	
17330.04	90.88	359.95	10375.00	7100.00	-6.20	0.00	0.00	7100.00	
17465.27	89.53	359.94	10374.52	7235.22	-6.33	1.00	-179.53	7235.22	
19950.24	89.53	359.94	10395.00	9720.11	-8.98	0.00	0.00	9720.11	PBHL (506H)

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
LP (506H)	10475.12	581.76	-0.51	410174.91	731228.67	32° 7' 34.190 N	103° 43' 11.717 W
PBHL (506H)	10395.00	9720.11	-8.98	419313.26	731220.20	32° 9' 4.620 N	103° 43' 11.210 W
SHL (506H)	0.00	0.00	0.00	409593.15	731229.18	32° 7' 28.433 N	103° 43' 11.749 W



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

Plan: Plan #1 (506H/OH)
Cotton Draw Unit
Created By: Dustin Ault
Date: 14-19, March 30 2017
Approved: _____ Date: _____

Devon Energy

Lea County, NM (NAD-83)

Cotton Draw Unit

506H

OH

Plan: Plan #1

Standard Planning Report

30 March, 2017

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Multi User Db	Local Co-ordinate Reference:	Well 506H
Company:	Devon Energy	TVD Reference:	3400' GE + 25' KB @ 3425.00usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3400' GE + 25' KB @ 3425.00usft
Site:	Cotton Draw Unit	North Reference:	Grid
Well:	506H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Lea 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	Cotton Draw Unit			
Site Position:		Northing:	409,601.90 usft	Latitude: 32° 7' 28.458 N
From:	Map	Easting:	732,306.79 usft	Longitude: 103° 42' 59.218 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"	Grid Convergence: 0.33 °

Well	506H			
Well Position	+N/-S	-8.75 usft	Northing:	409,593.15 usft
	+E/-W	-1,077.61 usft	Easting:	731,229.18 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level: 3,400.00 usft

Wellbore	OH			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)
	HDGM	3/30/2017	6.88	59.87
				Field Strength (nT)
				48,054

Design	Plan #1			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	0.00

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	
9,902.23	0.00	0.00	9,902.23	0.00	0.00	0.00	0.00	0.00	0.00	
10,811.03	90.88	359.95	10,475.12	581.76	-0.51	10.00	10.00	0.00	359.95	
17,330.04	90.88	359.95	10,375.00	7,100.00	-6.20	0.00	0.00	0.00	0.00	
17,465.27	89.53	359.94	10,374.52	7,235.22	-6.33	1.00	-1.00	-0.01	-179.53	
19,950.24	89.53	359.94	10,395.00	9,720.11	-8.98	0.00	0.00	0.00	0.00	PBHL (506H)

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Multi User Db	Local Co-ordinate Reference:	Well 506H
Company:	Devon Energy	TVD Reference:	3400' GE + 25' KB @ 3425.00usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3400' GE + 25' KB @ 3425.00usft
Site:	Cotton Draw Unit	North Reference:	Grid
Well:	506H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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
SHL (506H)									
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
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Multi User Db	Local Co-ordinate Reference:	Well 506H
Company:	Devon Energy	TVD Reference:	3400' GE + 25' KB @ 3425.00usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3400' GE + 25' KB @ 3425.00usft
Site:	Cotton Draw Unit	North Reference:	Grid
Well:	506H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)	
5,300.00	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	
6,200.00	0.00	0.00	6,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,300.00	0.00	0.00	6,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,400.00	0.00	0.00	6,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,500.00	0.00	0.00	6,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,600.00	0.00	0.00	6,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,700.00	0.00	0.00	6,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,800.00	0.00	0.00	6,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
6,900.00	0.00	0.00	6,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,000.00	0.00	0.00	7,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,100.00	0.00	0.00	7,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,200.00	0.00	0.00	7,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,300.00	0.00	0.00	7,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,400.00	0.00	0.00	7,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,500.00	0.00	0.00	7,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,600.00	0.00	0.00	7,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,700.00	0.00	0.00	7,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,800.00	0.00	0.00	7,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
7,900.00	0.00	0.00	7,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,000.00	0.00	0.00	8,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,100.00	0.00	0.00	8,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,200.00	0.00	0.00	8,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,300.00	0.00	0.00	8,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,400.00	0.00	0.00	8,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,500.00	0.00	0.00	8,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,600.00	0.00	0.00	8,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,700.00	0.00	0.00	8,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,800.00	0.00	0.00	8,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
8,900.00	0.00	0.00	8,900.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,000.00	0.00	0.00	9,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,100.00	0.00	0.00	9,100.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,200.00	0.00	0.00	9,200.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,300.00	0.00	0.00	9,300.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,400.00	0.00	0.00	9,400.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,500.00	0.00	0.00	9,500.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,600.00	0.00	0.00	9,600.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,700.00	0.00	0.00	9,700.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,800.00	0.00	0.00	9,800.00	0.00	0.00	0.00	0.00	0.00	0.00	
9,902.23	0.00	0.00	9,902.23	0.00	0.00	0.00	0.00	0.00	0.00	
Start Build 10.00										
9,950.00	4.78	359.95	9,949.94	1.99	0.00	1.99	10.00	10.00	0.00	
10,000.00	9.78	359.95	9,999.53	8.32	-0.01	8.32	10.00	10.00	0.00	
10,050.00	14.78	359.95	10,048.37	18.95	-0.02	18.95	10.00	10.00	0.00	
10,100.00	19.78	359.95	10,096.10	33.79	-0.03	33.79	10.00	10.00	0.00	
10,150.00	24.78	359.95	10,142.35	52.74	-0.05	52.74	10.00	10.00	0.00	

LEAM Drilling Systems LLC

Planning Report

Database: EDM 5000.1 Multi User Db
Company: Devon Energy
Project: Lea County, NM (NAD-83)
Site: Cotton Draw Unit
Well: 506H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well 506H
3400' GE + 25' KB @ 3425.00usft
3400' GE + 25' KB @ 3425.00usft
Grid
Minimum Curvature

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)
10,200.00	29.78	359.95	10,186.78	75.65	-0.07	75.65	10.00	10.00	0.00
10,250.00	34.78	359.95	10,229.04	102.34	-0.09	102.34	10.00	10.00	0.00
10,300.00	39.78	359.95	10,268.81	132.62	-0.12	132.62	10.00	10.00	0.00
10,350.00	44.78	359.95	10,305.79	166.24	-0.15	166.24	10.00	10.00	0.00
10,400.00	49.78	359.95	10,339.70	202.96	-0.18	202.96	10.00	10.00	0.00
10,450.00	54.78	359.95	10,370.29	242.50	-0.21	242.50	10.00	10.00	0.00
10,500.00	59.78	359.95	10,397.31	284.55	-0.25	284.55	10.00	10.00	0.00
10,550.00	64.78	359.95	10,420.56	328.80	-0.29	328.80	10.00	10.00	0.00
10,600.00	69.78	359.95	10,439.87	374.90	-0.33	374.90	10.00	10.00	0.00
10,650.00	74.78	359.95	10,455.08	422.51	-0.37	422.51	10.00	10.00	0.00
10,700.00	79.78	359.95	10,466.09	471.27	-0.41	471.27	10.00	10.00	0.00
10,750.00	84.78	359.95	10,472.81	520.80	-0.45	520.80	10.00	10.00	0.00
10,800.00	89.78	359.95	10,475.18	570.73	-0.50	570.73	10.00	10.00	0.00
10,811.03	90.88	359.95	10,475.12	581.76	-0.51	581.76	10.00	10.00	0.00
Start 6519.01 hold at 10811.03 MD - LP (506H)									
10,900.00	90.88	359.95	10,473.75	670.72	-0.59	670.72	0.00	0.00	0.00
11,000.00	90.88	359.95	10,472.22	770.70	-0.67	770.70	0.00	0.00	0.00
11,100.00	90.88	359.95	10,470.68	870.69	-0.76	870.69	0.00	0.00	0.00
11,200.00	90.88	359.95	10,469.15	970.68	-0.85	970.68	0.00	0.00	0.00
11,300.00	90.88	359.95	10,467.61	1,070.67	-0.93	1,070.67	0.00	0.00	0.00
11,400.00	90.88	359.95	10,466.07	1,170.66	-1.02	1,170.66	0.00	0.00	0.00
11,500.00	90.88	359.95	10,464.54	1,270.65	-1.11	1,270.65	0.00	0.00	0.00
11,600.00	90.88	359.95	10,463.00	1,370.63	-1.20	1,370.63	0.00	0.00	0.00
11,700.00	90.88	359.95	10,461.47	1,470.62	-1.28	1,470.62	0.00	0.00	0.00
11,800.00	90.88	359.95	10,459.93	1,570.61	-1.37	1,570.61	0.00	0.00	0.00
11,900.00	90.88	359.95	10,458.40	1,670.60	-1.46	1,670.60	0.00	0.00	0.00
12,000.00	90.88	359.95	10,456.86	1,770.59	-1.55	1,770.59	0.00	0.00	0.00
12,100.00	90.88	359.95	10,455.32	1,870.57	-1.63	1,870.57	0.00	0.00	0.00
12,200.00	90.88	359.95	10,453.79	1,970.56	-1.72	1,970.56	0.00	0.00	0.00
12,300.00	90.88	359.95	10,452.25	2,070.55	-1.81	2,070.55	0.00	0.00	0.00
12,400.00	90.88	359.95	10,450.72	2,170.54	-1.89	2,170.54	0.00	0.00	0.00
12,500.00	90.88	359.95	10,449.18	2,270.53	-1.98	2,270.53	0.00	0.00	0.00
12,600.00	90.88	359.95	10,447.64	2,370.52	-2.07	2,370.52	0.00	0.00	0.00
12,700.00	90.88	359.95	10,446.11	2,470.50	-2.16	2,470.50	0.00	0.00	0.00
12,800.00	90.88	359.95	10,444.57	2,570.49	-2.24	2,570.49	0.00	0.00	0.00
12,900.00	90.88	359.95	10,443.04	2,670.48	-2.33	2,670.48	0.00	0.00	0.00
13,000.00	90.88	359.95	10,441.50	2,770.47	-2.42	2,770.47	0.00	0.00	0.00
13,100.00	90.88	359.95	10,439.97	2,870.46	-2.50	2,870.46	0.00	0.00	0.00
13,200.00	90.88	359.95	10,438.43	2,970.44	-2.59	2,970.44	0.00	0.00	0.00
13,300.00	90.88	359.95	10,436.89	3,070.43	-2.68	3,070.43	0.00	0.00	0.00
13,400.00	90.88	359.95	10,435.36	3,170.42	-2.77	3,170.42	0.00	0.00	0.00
13,500.00	90.88	359.95	10,433.82	3,270.41	-2.85	3,270.41	0.00	0.00	0.00
13,600.00	90.88	359.95	10,432.29	3,370.40	-2.94	3,370.40	0.00	0.00	0.00
13,700.00	90.88	359.95	10,430.75	3,470.39	-3.03	3,470.39	0.00	0.00	0.00
13,800.00	90.88	359.95	10,429.21	3,570.37	-3.12	3,570.37	0.00	0.00	0.00
13,900.00	90.88	359.95	10,427.68	3,670.36	-3.20	3,670.36	0.00	0.00	0.00
14,000.00	90.88	359.95	10,426.14	3,770.35	-3.29	3,770.35	0.00	0.00	0.00
14,100.00	90.88	359.95	10,424.61	3,870.34	-3.38	3,870.34	0.00	0.00	0.00
14,200.00	90.88	359.95	10,423.07	3,970.33	-3.46	3,970.33	0.00	0.00	0.00
14,300.00	90.88	359.95	10,421.54	4,070.31	-3.55	4,070.31	0.00	0.00	0.00
14,400.00	90.88	359.95	10,420.00	4,170.30	-3.64	4,170.30	0.00	0.00	0.00
14,500.00	90.88	359.95	10,418.46	4,270.29	-3.73	4,270.29	0.00	0.00	0.00
14,600.00	90.88	359.95	10,416.93	4,370.28	-3.81	4,370.28	0.00	0.00	0.00
14,700.00	90.88	359.95	10,415.39	4,470.27	-3.90	4,470.27	0.00	0.00	0.00

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Multi User Db	Local Co-ordinate Reference:	Well 506H
Company:	Devon Energy	TVD Reference:	3400' GE + 25' KB @ 3425.00usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3400' GE + 25' KB @ 3425.00usft
Site:	Cotton Draw Unit	North Reference:	Grid
Well:	506H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
14,800.00	90.88	359.95	10,413.86	4,570.26	-3.99	4,570.26	0.00	0.00	0.00
14,900.00	90.88	359.95	10,412.32	4,670.24	-4.08	4,670.24	0.00	0.00	0.00
15,000.00	90.88	359.95	10,410.79	4,770.23	-4.16	4,770.23	0.00	0.00	0.00
15,100.00	90.88	359.95	10,409.25	4,870.22	-4.25	4,870.22	0.00	0.00	0.00
15,200.00	90.88	359.95	10,407.71	4,970.21	-4.34	4,970.21	0.00	0.00	0.00
15,300.00	90.88	359.95	10,406.18	5,070.20	-4.42	5,070.20	0.00	0.00	0.00
15,400.00	90.88	359.95	10,404.64	5,170.18	-4.51	5,170.18	0.00	0.00	0.00
15,500.00	90.88	359.95	10,403.11	5,270.17	-4.60	5,270.17	0.00	0.00	0.00
15,600.00	90.88	359.95	10,401.57	5,370.16	-4.69	5,370.16	0.00	0.00	0.00
15,700.00	90.88	359.95	10,400.03	5,470.15	-4.77	5,470.15	0.00	0.00	0.00
15,800.00	90.88	359.95	10,398.50	5,570.14	-4.86	5,570.14	0.00	0.00	0.00
15,900.00	90.88	359.95	10,396.96	5,670.13	-4.95	5,670.13	0.00	0.00	0.00
16,000.00	90.88	359.95	10,395.43	5,770.11	-5.04	5,770.11	0.00	0.00	0.00
16,100.00	90.88	359.95	10,393.89	5,870.10	-5.12	5,870.10	0.00	0.00	0.00
16,200.00	90.88	359.95	10,392.36	5,970.09	-5.21	5,970.09	0.00	0.00	0.00
16,300.00	90.88	359.95	10,390.82	6,070.08	-5.30	6,070.08	0.00	0.00	0.00
16,400.00	90.88	359.95	10,389.28	6,170.07	-5.38	6,170.07	0.00	0.00	0.00
16,500.00	90.88	359.95	10,387.75	6,270.05	-5.47	6,270.05	0.00	0.00	0.00
16,600.00	90.88	359.95	10,386.21	6,370.04	-5.56	6,370.04	0.00	0.00	0.00
16,700.00	90.88	359.95	10,384.68	6,470.03	-5.65	6,470.03	0.00	0.00	0.00
16,800.00	90.88	359.95	10,383.14	6,570.02	-5.73	6,570.02	0.00	0.00	0.00
16,900.00	90.88	359.95	10,381.60	6,670.01	-5.82	6,670.01	0.00	0.00	0.00
17,000.00	90.88	359.95	10,380.07	6,770.00	-5.91	6,770.00	0.00	0.00	0.00
17,100.00	90.88	359.95	10,378.53	6,869.98	-6.00	6,869.98	0.00	0.00	0.00
17,200.00	90.88	359.95	10,377.00	6,969.97	-6.08	6,969.97	0.00	0.00	0.00
17,300.00	90.88	359.95	10,375.46	7,069.96	-6.17	7,069.96	0.00	0.00	0.00
17,330.04	90.88	359.95	10,375.00	7,100.00	-6.20	7,100.00	0.00	0.00	0.00
Start DLS 1.00 TFO -179.53									
17,400.00	90.18	359.94	10,374.35	7,169.95	-6.26	7,169.95	1.00	-1.00	-0.01
17,465.27	89.53	359.94	10,374.52	7,235.22	-6.33	7,235.22	1.00	-1.00	-0.01
Start 2484.97 hold at 17465.27 MD									
17,500.00	89.53	359.94	10,374.80	7,269.95	-6.36	7,269.95	0.00	0.00	0.00
17,600.00	89.53	359.94	10,375.63	7,369.95	-6.47	7,369.95	0.00	0.00	0.00
17,700.00	89.53	359.94	10,376.45	7,469.94	-6.58	7,469.94	0.00	0.00	0.00
17,800.00	89.53	359.94	10,377.28	7,569.94	-6.68	7,569.94	0.00	0.00	0.00
17,900.00	89.53	359.94	10,378.10	7,669.94	-6.79	7,669.94	0.00	0.00	0.00
18,000.00	89.53	359.94	10,378.93	7,769.93	-6.90	7,769.93	0.00	0.00	0.00
18,100.00	89.53	359.94	10,379.75	7,869.93	-7.00	7,869.93	0.00	0.00	0.00
18,200.00	89.53	359.94	10,380.57	7,969.93	-7.11	7,969.93	0.00	0.00	0.00
18,300.00	89.53	359.94	10,381.40	8,069.92	-7.22	8,069.92	0.00	0.00	0.00
18,400.00	89.53	359.94	10,382.22	8,169.92	-7.32	8,169.92	0.00	0.00	0.00
18,500.00	89.53	359.94	10,383.05	8,269.92	-7.43	8,269.92	0.00	0.00	0.00
18,600.00	89.53	359.94	10,383.87	8,369.91	-7.54	8,369.91	0.00	0.00	0.00
18,700.00	89.53	359.94	10,384.70	8,469.91	-7.65	8,469.91	0.00	0.00	0.00
18,800.00	89.53	359.94	10,385.52	8,569.91	-7.75	8,569.91	0.00	0.00	0.00
18,900.00	89.53	359.94	10,386.34	8,669.90	-7.86	8,669.90	0.00	0.00	0.00
19,000.00	89.53	359.94	10,387.17	8,769.90	-7.97	8,769.90	0.00	0.00	0.00
19,100.00	89.53	359.94	10,387.99	8,869.90	-8.07	8,869.90	0.00	0.00	0.00
19,200.00	89.53	359.94	10,388.82	8,969.89	-8.18	8,969.89	0.00	0.00	0.00
19,300.00	89.53	359.94	10,389.64	9,069.89	-8.29	9,069.89	0.00	0.00	0.00
19,400.00	89.53	359.94	10,390.46	9,169.89	-8.39	9,169.89	0.00	0.00	0.00
19,500.00	89.53	359.94	10,391.29	9,269.88	-8.50	9,269.88	0.00	0.00	0.00
19,600.00	89.53	359.94	10,392.11	9,369.88	-8.61	9,369.88	0.00	0.00	0.00
19,700.00	89.53	359.94	10,392.94	9,469.87	-8.71	9,469.87	0.00	0.00	0.00

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Multi User Db	Local Co-ordinate Reference:	Well 506H
Company:	Devon Energy	TVD Reference:	3400' GE + 25' KB @ 3425.00usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3400' GE + 25' KB @ 3425.00usft
Site:	Cotton Draw Unit	North Reference:	Grid
Well:	506H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

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)
19,800.00	89.53	359.94	10,393.76	9,569.87	-8.82	9,569.87	0.00	0.00	0.00
19,900.00	89.53	359.94	10,394.59	9,669.87	-8.93	9,669.87	0.00	0.00	0.00
19,950.24	89.53	359.94	10,395.00	9,720.11	-8.98	9,720.11	0.00	0.00	0.00
TD at 19950.24 - PBHL (506H)									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
SHL (506H) - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	409,593.15	731,229.18	32° 7' 28.433 N	103° 43' 11.749 W
PBHL (506H) - plan hits target center - Point	0.00	0.00	10,395.00	9,720.11	-8.98	419,313.26	731,220.20	32° 9' 4.620 N	103° 43' 11.210 W
LP (506H) - plan hits target center - Point	0.00	0.00	10,475.12	581.76	-0.51	410,174.91	731,228.67	32° 7' 34.190 N	103° 43' 11.717 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,902.23	9,902.23	0.00	0.00	Start Build 10.00
10,811.03	10,475.12	581.76	-0.51	Start 6519.01 hold at 10811.03 MD
17,330.04	10,375.00	7,100.00	-6.20	Start DLS 1.00 TFO -179.53
17,465.27	10,374.52	7,235.22	-6.33	Start 2484.97 hold at 17465.27 MD
19,950.24	10,395.00	9,720.11	-8.98	TD at 19950.24

COMPANY Devon Energy
FIELD Lea County, NM (NAD-83)
SITE Cotton Draw Unit
WELL 506H
WELLPATH OH
DESIGN Plan #1
DEPTHUNT (usft)

WELL INFO
MAP DATUM North American Datum 1983
MAP SYSTEM US State Plane 1983
MAP ZONE New Mexico Eastern Zone
WELL LAT 32.124565
WELL LON -103.71993
WELL EW MAI 731229.18
WELL NS MAP 409593.15
CONVERGENC 0.33
MAGMODEL HDGM
DECLINATION 6.88
NORTH REF Grid
GROUND ELEV 3400
KB ELEV 3425
VS AZI 0

SURVEY PROGRAM
1 0.00 - 19950.14 PLAN #1 - LEAM MWD+HDGM

SURVEY LIST																	
Measured Dip	Inclination	Azimuth	Course Length	True Vertical	Sub Sea	TVD	Local N/-S	Local E/-W	Easting	Northing	Latitude	Longitude	Dogleg	Sever	Build Rate	Turn Rate	Vertical Section
MD	INC	AZI	CL	TVD	SSTVD	NS	EW	X	Y	LAT	LO	DLS	BLD	TRN	VS		
0.00	0.00	0.00	0.00	0.00	0.00	3425.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
100.00	0.00	0.00	100.00	100.00	3325.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	100.00	200.00	3225.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
300.00	0.00	0.00	100.00	300.00	3125.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	100.00	400.00	3025.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
500.00	0.00	0.00	100.00	500.00	2925.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
600.00	0.00	0.00	100.00	600.00	2825.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
700.00	0.00	0.00	100.00	700.00	2725.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
800.00	0.00	0.00	100.00	800.00	2625.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
900.00	0.00	0.00	100.00	900.00	2525.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
1000.00	0.00	0.00	100.00	1000.00	2425.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
1100.00	0.00	0.00	100.00	1100.00	2325.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
1200.00	0.00	0.00	100.00	1200.00	2225.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
1300.00	0.00	0.00	100.00	1300.00	2125.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
1400.00	0.00	0.00	100.00	1400.00	2025.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
1500.00	0.00	0.00	100.00	1500.00	1925.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
1600.00	0.00	0.00	100.00	1600.00	1825.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
1700.00	0.00	0.00	100.00	1700.00	1725.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
1800.00	0.00	0.00	100.00	1800.00	1625.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
1900.00	0.00	0.00	100.00	1900.00	1525.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
2000.00	0.00	0.00	100.00	2000.00	1425.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
2100.00	0.00	0.00	100.00	2100.00	1325.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
2200.00	0.00	0.00	100.00	2200.00	1225.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
2300.00	0.00	0.00	100.00	2300.00	1125.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
2400.00	0.00	0.00	100.00	2400.00	1025.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
2500.00	0.00	0.00	100.00	2500.00	925.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
2600.00	0.00	0.00	100.00	2600.00	825.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
2700.00	0.00	0.00	100.00	2700.00	725.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
2800.00	0.00	0.00	100.00	2800.00	625.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
2900.00	0.00	0.00	100.00	2900.00	525.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
3000.00	0.00	0.00	100.00	3000.00	425.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
3100.00	0.00	0.00	100.00	3100.00	325.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
3200.00	0.00	0.00	100.00	3200.00	225.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
3300.00	0.00	0.00	100.00	3300.00	125.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
3400.00	0.00	0.00	100.00	3400.00	25.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
3500.00	0.00	0.00	100.00	3500.00	-75.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
3600.00	0.00	0.00	100.00	3600.00	-175.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
3700.00	0.00	0.00	100.00	3700.00	-275.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
3800.00	0.00	0.00	100.00	3800.00	-375.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
3900.00	0.00	0.00	100.00	3900.00	-475.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
4000.00	0.00	0.00	100.00	4000.00	-575.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
4100.00	0.00	0.00	100.00	4100.00	-675.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
4200.00	0.00	0.00	100.00	4200.00	-775.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
4300.00	0.00	0.00	100.00	4300.00	-875.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
4400.00	0.00	0.00	100.00	4400.00	-975.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
4500.00	0.00	0.00	100.00	4500.00	-1075.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
4600.00	0.00	0.00	100.00	4600.00	-1175.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
4700.00	0.00	0.00	100.00	4700.00	-1275.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
4800.00	0.00	0.00	100.00	4800.00	-1375.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
4900.00	0.00	0.00	100.00	4900.00	-1475.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
5000.00	0.00	0.00	100.00	5000.00	-1575.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
5100.00	0.00	0.00	100.00	5100.00	-1675.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
5200.00	0.00	0.00	100.00	5200.00	-1775.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
5300.00	0.00	0.00	100.00	5300.00	-1875.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
5400.00	0.00	0.00	100.00	5400.00	-1975.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
5500.00	0.00	0.00	100.00	5500.00	-2075.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
5600.00	0.00	0.00	100.00	5600.00	-2175.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00	
5700.00	0.00	0.00	100.00	5700.00	-2275.00	0.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00		

6900.00	0.00	0.00	100.00	6900.00	-3475.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
7000.00	0.00	0.00	100.00	7000.00	-3575.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
7100.00	0.00	0.00	100.00	7100.00	-3675.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
7200.00	0.00	0.00	100.00	7200.00	-3775.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
7300.00	0.00	0.00	100.00	7300.00	-3875.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
7400.00	0.00	0.00	100.00	7400.00	-3975.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
7500.00	0.00	0.00	100.00	7500.00	-4075.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
7600.00	0.00	0.00	100.00	7600.00	-4175.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
7700.00	0.00	0.00	100.00	7700.00	-4275.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
7800.00	0.00	0.00	100.00	7800.00	-4375.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
7900.00	0.00	0.00	100.00	7900.00	-4475.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
8000.00	0.00	0.00	100.00	8000.00	-4575.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
8100.00	0.00	0.00	100.00	8100.00	-4675.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
8200.00	0.00	0.00	100.00	8200.00	-4775.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
8300.00	0.00	0.00	100.00	8300.00	-4875.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
8400.00	0.00	0.00	100.00	8400.00	-4975.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
8500.00	0.00	0.00	100.00	8500.00	-5075.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
8600.00	0.00	0.00	100.00	8600.00	-5175.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
8700.00	0.00	0.00	100.00	8700.00	-5275.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
8800.00	0.00	0.00	100.00	8800.00	-5375.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
8900.00	0.00	0.00	100.00	8900.00	-5475.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
9000.00	0.00	0.00	100.00	9000.00	-5575.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
9100.00	0.00	0.00	100.00	9100.00	-5675.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
9200.00	0.00	0.00	100.00	9200.00	-5775.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
9300.00	0.00	0.00	100.00	9300.00	-5875.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
9400.00	0.00	0.00	100.00	9400.00	-5975.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
9500.00	0.00	0.00	100.00	9500.00	-6075.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
9600.00	0.00	0.00	100.00	9600.00	-6175.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
9700.00	0.00	0.00	100.00	9700.00	-6275.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
9800.00	0.00	0.00	100.00	9800.00	-6375.00	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
9902.23	0.00	0.00	102.23	9902.23	-6477.23	0.00	0.00	731229.18	409593.15	32.124565	-103.719930	0.00	0.00	0.00	0.00
9950.00	4.78	359.95	47.77	9949.95	-6524.95	1.99	0.00	731229.18	409593.15	32.124570	-103.719930	10.00	10.00	0.00	1.99
10000.00	9.78	359.95	50.00	9999.53	-6574.53	8.32	-0.01	731229.17	409601.47	32.124588	-103.719930	10.00	10.00	0.00	8.32
10050.00	14.78	359.95	50.00	10048.37	-6623.37	18.95	-0.02	731229.16	409612.10	32.124617	-103.719930	10.00	10.00	0.00	18.95
10100.00	19.78	359.95	50.00	10096.10	-6671.10	33.80	-0.03	731229.15	409626.95	32.124658	-103.719930	10.00	10.00	0.00	33.80
10150.00	24.78	359.95	50.00	10142.35	-6717.35	52.74	-0.05	731229.13	409645.89	32.124710	-103.719930	10.00	10.00	0.00	52.74
10200.00	29.78	359.95	50.00	10186.78	-6761.78	75.65	-0.07	731229.11	409668.80	32.124773	-103.719929	10.00	10.00	0.00	75.65
10250.00	34.78	359.95	50.00	10229.04	-6804.04	102.34	-0.09	731229.09	409695.49	32.124846	-103.719929	10.00	10.00	0.00	102.34
10300.00	39.78	359.95	50.00	10268.81	-6843.81	132.62	-0.12	731229.06	409725.77	32.124929	-103.719928	10.00	10.00	0.00	132.62
10350.00	44.78	359.95	50.00	10305.79	-6880.79	166.24	-0.15	731229.04	409759.39	32.125022	-103.719928	10.00	10.00	0.00	166.24
10400.00	49.78	359.95	50.00	10339.70	-6914.70	202.96	-0.18	731229.00	409796.11	32.125123	-103.719927	10.00	10.00	0.00	202.96
10450.00	54.78	359.95	50.00	10370.29	-6945.29	242.50	-0.21	731228.97	409835.65	32.125231	-103.719927	10.00	10.00	0.00	242.50
10500.00	59.78	359.95	50.00	10397.31	-6972.31	284.55	-0.25	731228.93	409877.70	32.125347	-103.719926	10.00	10.00	0.00	284.55
10550.00	64.78	359.95	50.00	10420.56	-6995.56	328.80	-0.29	731228.89	409921.95	32.125468	-103.719925	10.00	10.00	0.00	328.80
10600.00	69.78	359.95	50.00	10439.87	-7014.87	374.90	-0.33	731228.85	409968.05	32.125595	-103.719924	10.00	10.00	0.00	374.90
10650.00	74.78	359.95	50.00	10455.08	-7030.08	422.51	-0.37	731228.81	410015.66	32.125726	-103.719924	10.00	10.00	0.00	422.51
10700.00	79.78	359.95	50.00	10466.09	-7041.09	471.27	-0.41	731228.77	410064.42	32.125860	-103.719923	10.00	10.00	0.00	471.27
10750.00	84.78	359.95	50.00	10472.81	-7047.81	520.80	-0.45	731228.73	410113.95	32.125996	-103.719922	10.00	10.00	0.00	520.80
10800.00	89.78	359.95	50.00	10475.18	-7050.18	570.73	-0.50	731228.68	410163.88	32.126133	-103.719921	10.00	10.00	0.00	570.73
10811.03	90.88	359.95	11.03	10475.12	-7050.12	581.76	-0.51	731228.67	410174.91	32.126164	-103.719921	10.00	10.00	0.00	581.76
10900.00	90.88	359.95	88.97	10473.75	-7048.75	670.72	-0.59	731228.60	410263.87	32.126408	-103.719920	0.00	0.00	0.00	670.72
11000.00	90.88	359.95	100.00	10472.22	-7047.22	770.71	-0.67	731228.51	410363.86	32.126683	-103.719918	0.00	0.00	0.00	770.71
11100.00	90.88	359.95	100.00	10470.68	-7045.68	870.69	-0.76	731228.42	410463.84	32.126958	-103.719917	0.00	0.00	0.00	870.69
11200.00	90.88	359.95	100.00	10469.15	-7044.15	970.68	-0.85	731228.33	410563.83	32.127233	-103.719915	0.00	0.00	0.00	970.68
11300.00	90.88	359.95	100.00	10467.61	-7042.61	1070.67	-0.93	731228.25	410663.82	32.127508	-103.719914	0.00	0.00	0.00	1070.67
11400.00	90.88	359.95	100.00	10466.08	-7041.08	1170.66	-1.02	731228.16	410763.81	32.127783	-103.719912	0.00	0.00	0.00	1170.66
11500.00	90.88	359.95	100.00	10464.54	-7039.54	1270.65	-1.11	731228.07	410863.80	32.128057	-103.719911	0.00	0.00	0.00	1270.65
11600.00	90.88	359.95	100.00	10463.00	-7038.00	1370.63	-1.20	731227.98	410963.78	32.128332	-103.719909	0.00	0.00	0.00	1370.63
11700.00	90.88	359.95	100.00	10461.47	-7036.47	1470.62	-1.28	731227.90	411063.77	32.128607	-103.719907	0.00	0.00	0.00	1470.62
11800.00	90.88	359.95	100.00	10459.93	-7034.93	1570.61	-1.37	731227.81	411163.76	32.128882	-103.719906	0.00	0.00	0.00	1570.61
11900.00	90.88	359.95	100.00	10458.40	-7033.40	1670.60	-1.46	731227.72	411263.75	32.129157	-103.719904	0.00	0.00	0.00	1670.60
12000.00	90.88	359.95	100.00	10456.86	-7031.86	1770.59	-1.55	731227.64	411363.74	32.129432	-103.719903	0.00	0.00	0.00	1770.59
12100.00	90.88	359.95	100.00	10455.32	-7030.32	1870.58	-1.63	731227.55	411463.73	32.129706	-103.719901	0.00	0.00	0.00	1870.58
12200.00	90.88	359.95	100.00	10453.79	-7028.79	1970.56	-1.72	731227.46	411563.71	32.129981	-103.719900	0.00	0.00	0.00	1970.56
12300.00	90.88	359.95	100.00	10452.25	-7027.25	2070.55	-1.81	731227.37	411663.70	32.130256	-103.719898	0.00	0.00	0.00	2070.55
12400.00	90.88	359.95	100.00	10450.72	-7025.72	2170.54	-1.89	731227.29	411763.69	32.130531	-103.719897	0.00	0.00	0.00	2170.54
12500.00	90.88	359.95	100.00	10449.18	-7024.18										

15800.00	90.88	359.95	100.00	10398.50	-6973.50	5570.14	-4.86	731224.32	415163.29	32.139876	-103.719844	0.00	0.00	0.00	5570.14
15900.00	90.88	359.95	100.00	10396.96	-6971.96	5670.13	-4.95	731224.23	415263.28	32.140151	-103.719842	0.00	0.00	0.00	5670.13
16000.00	90.88	359.95	100.00	10395.43	-6970.43	5770.11	-5.04	731224.15	415363.26	32.140426	-103.719840	0.00	0.00	0.00	5770.11
16100.00	90.88	359.95	100.00	10393.89	-6968.89	5870.10	-5.12	731224.06	415463.25	32.140700	-103.719839	0.00	0.00	0.00	5870.10
16200.00	90.88	359.95	100.00	10392.36	-6967.36	5970.09	-5.21	731223.97	415563.24	32.140975	-103.719837	0.00	0.00	0.00	5970.09
16300.00	90.88	359.95	100.00	10390.82	-6965.82	6070.08	-5.30	731223.88	415663.23	32.141250	-103.719836	0.00	0.00	0.00	6070.08
16400.00	90.88	359.95	100.00	10389.28	-6964.28	6170.07	-5.38	731223.80	415763.22	32.141525	-103.719834	0.00	0.00	0.00	6170.07
16500.00	90.88	359.95	100.00	10387.75	-6962.75	6270.05	-5.47	731223.71	415863.20	32.141800	-103.719833	0.00	0.00	0.00	6270.05
16600.00	90.88	359.95	100.00	10386.21	-6961.21	6370.04	-5.56	731223.62	415963.19	32.142075	-103.719831	0.00	0.00	0.00	6370.04
16700.00	90.88	359.95	100.00	10384.68	-6959.68	6470.03	-5.65	731223.53	416063.18	32.142349	-103.719830	0.00	0.00	0.00	6470.03
16800.00	90.88	359.95	100.00	10383.14	-6958.14	6570.02	-5.73	731223.45	416163.17	32.142624	-103.719828	0.00	0.00	0.00	6570.02
16900.00	90.88	359.95	100.00	10381.60	-6956.60	6670.01	-5.82	731223.36	416263.16	32.142899	-103.719826	0.00	0.00	0.00	6670.01
17000.00	90.88	359.95	100.00	10380.07	-6955.07	6770.00	-5.91	731223.27	416363.15	32.143174	-103.719825	0.00	0.00	0.00	6770.00
17100.00	90.88	359.95	100.00	10378.53	-6953.53	6869.98	-6.00	731223.19	416463.13	32.143449	-103.719823	0.00	0.00	0.00	6869.98
17200.00	90.88	359.95	100.00	10377.00	-6952.00	6969.97	-6.08	731223.10	416563.12	32.143724	-103.719822	0.00	0.00	0.00	6969.97
17300.00	90.88	359.95	100.00	10375.46	-6950.46	7069.96	-6.17	731223.01	416663.11	32.143999	-103.719820	0.00	0.00	0.00	7069.96
17330.04	90.88	359.95	30.04	10375.00	-6950.00	7100.00	-6.20	731222.98	416693.15	32.144081	-103.719820	0.00	0.00	0.00	7100.00
17400.00	90.18	359.94	69.96	10374.35	-6949.35	7169.95	-6.26	731222.92	416763.10	32.144273	-103.719819	1.00	-1.00	-0.01	7169.95
17465.27	89.53	359.94	65.27	10374.52	-6949.52	7235.22	-6.33	731222.85	416828.37	32.144453	-103.719818	1.00	-1.00	-0.01	7235.22
17500.00	89.53	359.94	34.73	10374.80	-6949.80	7269.95	-6.36	731222.82	416863.10	32.144548	-103.719817	0.00	0.00	0.00	7269.95
17600.00	89.53	359.94	100.00	10375.63	-6950.63	7369.95	-6.47	731222.71	416963.10	32.144823	-103.719816	0.00	0.00	0.00	7369.95
17700.00	89.53	359.94	100.00	10376.45	-6951.45	7469.94	-6.58	731222.60	417063.09	32.145098	-103.719814	0.00	0.00	0.00	7469.94
17800.00	89.53	359.94	100.00	10377.28	-6952.28	7569.94	-6.68	731222.50	417163.09	32.145373	-103.719813	0.00	0.00	0.00	7569.94
17900.00	89.53	359.94	100.00	10378.10	-6953.10	7669.94	-6.79	731222.39	417263.09	32.145648	-103.719811	0.00	0.00	0.00	7669.94
18000.00	89.53	359.94	100.00	10378.93	-6953.93	7769.93	-6.90	731222.28	417363.08	32.145923	-103.719810	0.00	0.00	0.00	7769.93
18100.00	89.53	359.94	100.00	10379.75	-6954.75	7869.93	-7.01	731222.18	417463.08	32.146198	-103.719808	0.00	0.00	0.00	7869.93
18200.00	89.53	359.94	100.00	10380.57	-6955.57	7969.93	-7.11	731222.07	417563.08	32.146472	-103.719807	0.00	0.00	0.00	7969.93
18300.00	89.53	359.94	100.00	10381.40	-6956.40	8069.92	-7.22	731221.96	417663.07	32.146747	-103.719805	0.00	0.00	0.00	8069.92
18400.00	89.53	359.94	100.00	10382.22	-6957.22	8169.92	-7.33	731221.86	417763.07	32.147022	-103.719804	0.00	0.00	0.00	8169.92
18500.00	89.53	359.94	100.00	10383.05	-6958.05	8269.92	-7.43	731221.75	417863.07	32.147297	-103.719802	0.00	0.00	0.00	8269.92
18600.00	89.53	359.94	100.00	10383.87	-6958.87	8369.91	-7.54	731221.64	417963.06	32.147572	-103.719801	0.00	0.00	0.00	8369.91
18700.00	89.53	359.94	100.00	10384.70	-6959.70	8469.91	-7.65	731221.54	418063.06	32.147847	-103.719799	0.00	0.00	0.00	8469.91
18800.00	89.53	359.94	100.00	10385.52	-6960.52	8569.91	-7.75	731221.43	418163.06	32.148122	-103.719798	0.00	0.00	0.00	8569.91
18900.00	89.53	359.94	100.00	10386.34	-6961.34	8669.90	-7.86	731221.32	418263.05	32.148396	-103.719796	0.00	0.00	0.00	8669.90
19000.00	89.53	359.94	100.00	10387.17	-6962.17	8769.90	-7.97	731221.21	418363.05	32.148671	-103.719795	0.00	0.00	0.00	8769.90
19100.00	89.53	359.94	100.00	10387.99	-6962.99	8869.90	-8.07	731221.11	418463.05	32.148946	-103.719793	0.00	0.00	0.00	8869.90
19200.00	89.53	359.94	100.00	10388.82	-6963.82	8969.89	-8.18	731221.00	418563.04	32.149221	-103.719792	0.00	0.00	0.00	8969.89
19300.00	89.53	359.94	100.00	10389.64	-6964.64	9069.89	-8.29	731220.89	418663.04	32.149496	-103.719790	0.00	0.00	0.00	9069.89
19400.00	89.53	359.94	100.00	10390.47	-6965.47	9169.88	-8.39	731220.79	418763.04	32.149771	-103.719789	0.00	0.00	0.00	9169.88
19500.00	89.53	359.94	100.00	10391.29	-6966.29	9269.88	-8.50	731220.68	418863.03	32.150046	-103.719787	0.00	0.00	0.00	9269.88
19600.00	89.53	359.94	100.00	10392.11	-6967.11	9369.88	-8.61	731220.57	418963.03	32.150321	-103.719786	0.00	0.00	0.00	9369.88
19700.00	89.53	359.94	100.00	10392.94	-6967.94	9469.88	-8.71	731220.47	419063.03	32.150595	-103.719784	0.00	0.00	0.00	9469.88
19800.00	89.53	359.94	100.00	10393.76	-6968.76	9569.87	-8.82	731220.36	419163.02	32.150870	-103.719783	0.00	0.00	0.00	9569.87
19900.00	89.53	359.94	100.00	10394.59	-6969.59	9669.87	-8.93	731220.25	419263.02	32.151145	-103.719781	0.00	0.00	0.00	9669.87
19950.24	89.53	359.94	50.24	10395.00	-6970.00	9720.11	-8.98	731220.20	419313.26	32.151283	-103.719780	0.00	0.00	0.00	9720.11

Output generated by LEAM DRILLING SYSTEMS, LLC. - 03/30/17