

Devon Energy

Project: Lea County, NM (NAD-83)
Site: Fighting Okra 18-19 Fed
Well: 3H
Wellbore: OH
Design: Plan #1



Azimuths to Grid North
True North: -0.44°
Magnetic North: 6.36°

Magnetic Field
Strength: 47893.0snT
Dip Angle: 59.78°
Date: 9/6/2017
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



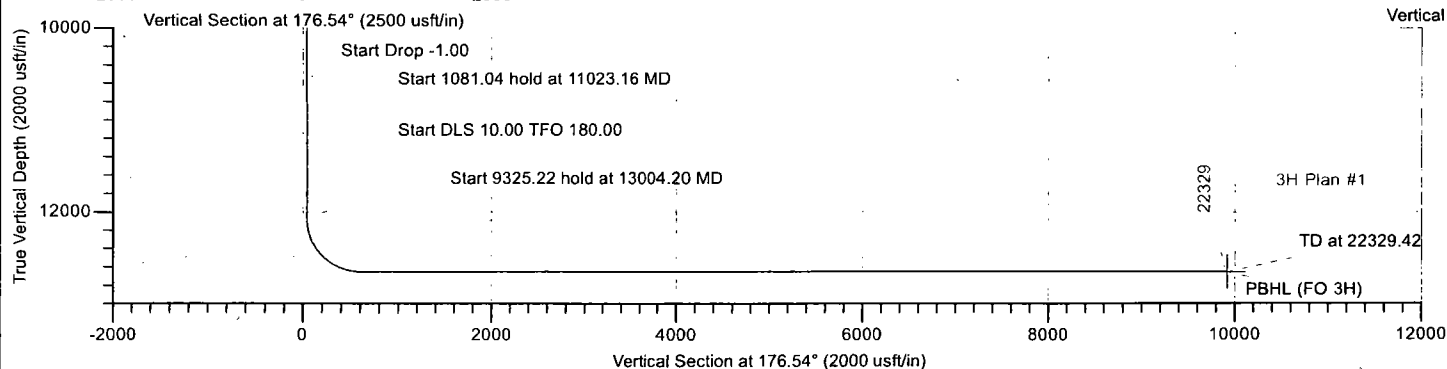
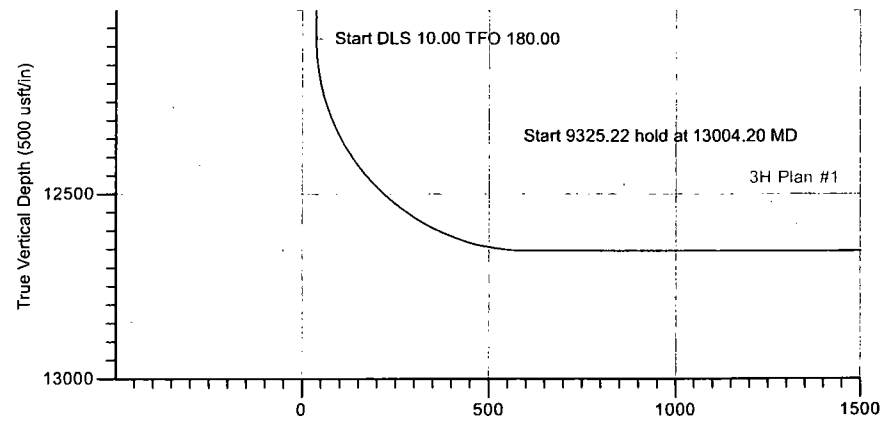
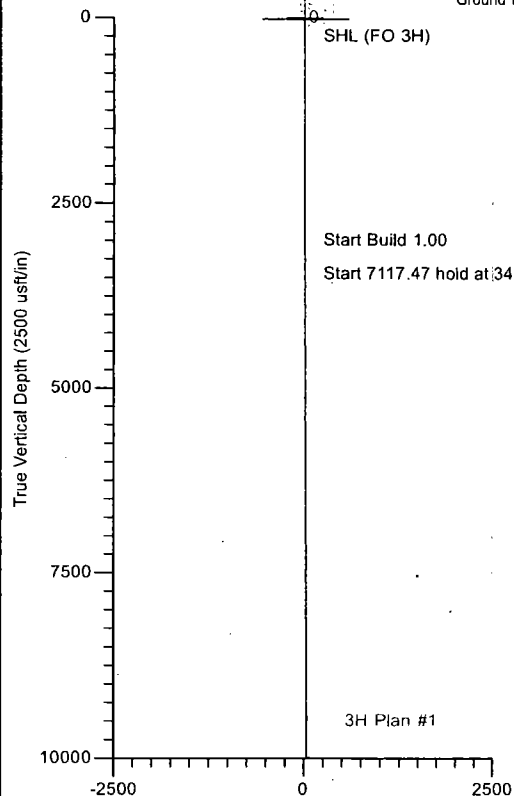
SECTION DETAILS

3372.2 GE + 25' KB @ 3397.20usft
Ground Level: 3372.20

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Start Build 1.00
3000.00	0.00	0.00	3000.00	0.00	0.00	0.00	0.00	0.00	Start 7117.47 hold at 3452.85 MD
3452.85	4.53	90.00	3452.38	0.00	17.89	1.00	90.00	1.08	Start Drop -1.00
10570.31	4.53	90.00	10547.62	0.00	579.84	0.00	0.00	34.95	Start 1081.04 hold at 11023.16 MD
11023.16	0.00	0.00	11000.00	0.00	597.73	1.00	180.00	36.03	Start DLS 10.00 TFO 180.00
12104.20	0.00	0.00	12081.04	0.00	597.73	0.00	0.00	36.03	Start 9325.22 hold at 13004.20 MD
13004.20	90.00	180.00	12654.00	-572.96	597.73	10.00	180.00	607.95	TD at 22329.42
22329.42	90.00	180.00	12654.00	-9898.18	597.73	0.00	0.00	9916.21	

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
PBHL (FO 3H)	12654.00	-9898.18	597.73	32° 1' 21.250 N	103° 30' 36.670 W
SHL (FO 3H)	0.00	0.00	0.00	32° 2' 59.241 N	103° 30' 42.738 W



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

Plan: Plan #1 (3H/OH)
Fighting Okra 18-19 Fed
Created By: Dustin Ault
Date: 15/28, September 06 2017
Approved: _____
Date: _____

Devon Energy

Project: Lea County, NM (NAD-83)
Site: Fighting Okra 18-19 Fed
Well: 3H
Wellbore: OH
Design: Plan #1



Azimuths to Grid North
True North: -0.44°
Magnetic North: 6.36°

Magnetic Field
Strength: 47893.0snT
Dip Angle: 59.78°
Date: 9/6/2017
Model: HDGM



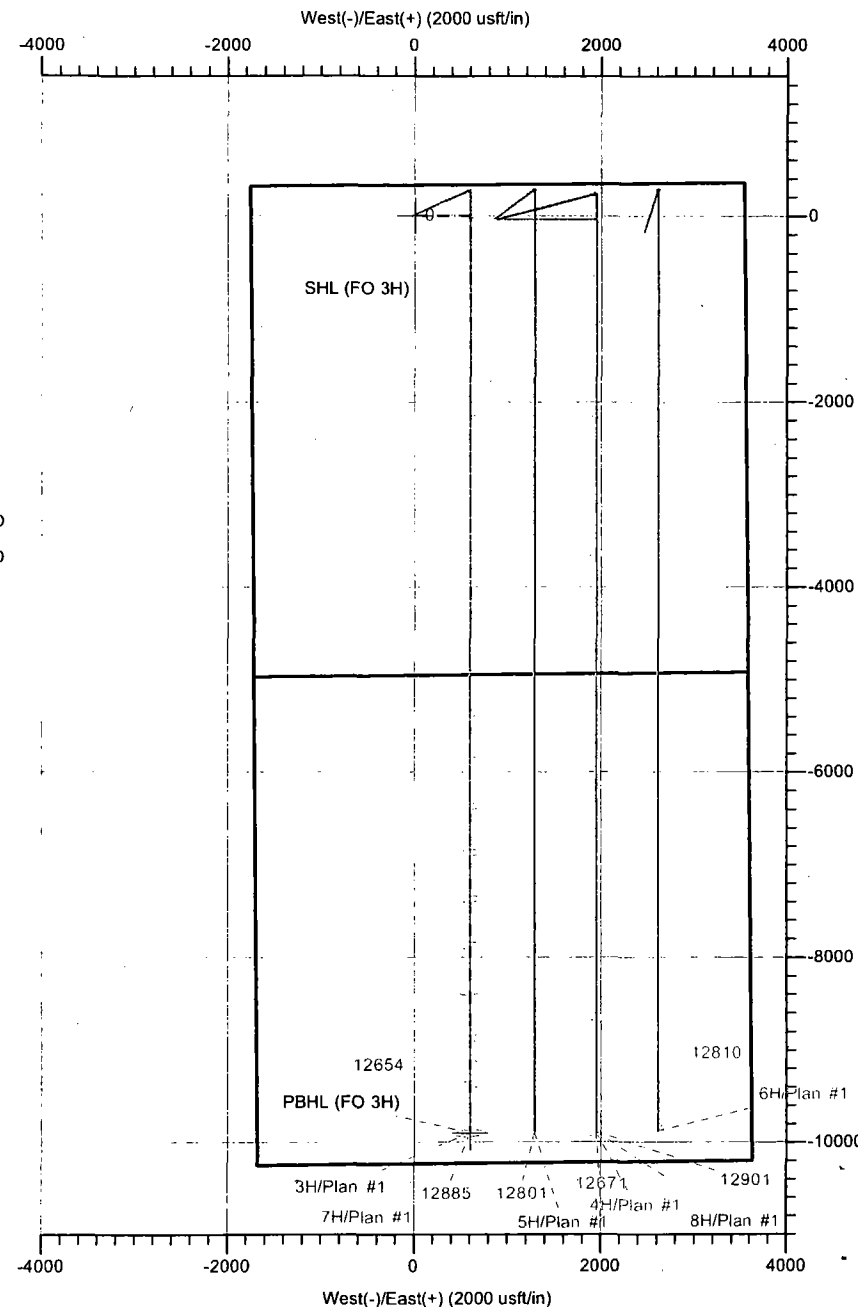
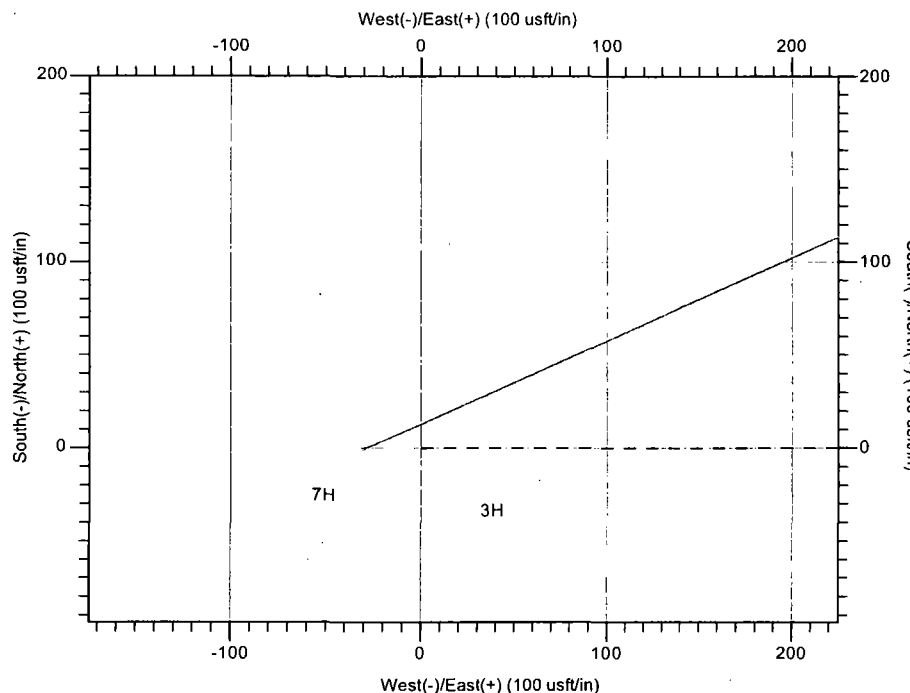
PROJECT DETAILS: Lea County, NM (NAD-83)
Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL (FO 3H)	12654.00	-9898.18	597.73	372921.30	796444.66	32° 1' 21.250 N	103° 30' 36.670 W
SHL (FO 3H)	0.00	0.00	0.00	382819.48	795846.93	32° 2' 59.241 N	103° 30' 42.738 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	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	Start Build 1.00
3452.85	4.53	90.00	3452.38	0.00	17.89	1.00	90.00	1.08	Start 7117.47 hold at 3452.85 MD
10570.31	4.53	90.00	10547.62	0.00	579.84	0.00	0.00	34.95	Start Drop -1.00
11023.16	0.00	0.00	11000.00	0.00	597.73	1.00	180.00	36.03	Start 1081.04 hold at 11023.16 MD
12104.20	0.00	0.00	12081.04	0.00	597.73	0.00	0.00	36.03	Start DLS 10.00 TFO 180.00
13004.20	90.00	180.00	12654.00	-572.96	597.73	10.00	180.00	607.95	Start 9325.22 hold at 13004.20 MD
22329.42	90.00	180.00	12654.00	-9898.18	597.73	0.00	0.00	9916.21	TD at 22329.42



LEAM DRILLING SYSTEMS LLC
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Phone: 936/756-7577, Fax: 936/756-7595

Plan: Plan #1 (3H/OH)
Fighting Okra 18-19 Fed
Created By: Dustin Ault
Date: _____
Approved: _____
Date: 15:30, September 06 2017

Devon Energy

Lea County, NM (NAD-83)
Fighting Okra 18-19 Fed
3H

OH

Plan: Plan #1

Standard Planning Report

06 September, 2017

HOBBS OCD
NOV 06 2017
RECEIVED

LEAM Drilling Systems LLC

Planning Report

Database: EDM 5000.1 Multi User Db
 Company: Devon Energy
 Project: Lea County, NM (NAD-83)
 Site: Fighting Okra 18-19 Fed
 Well: 3H
 Wellbore: OH
 Design: Plan #1

Local Co-ordinate Reference: Well 3H
 TVD Reference: 3372.2 GE + 25' KB @ 3397.20usft
 MD Reference: 3372.2 GE + 25' KB @ 3397.20usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

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	Fighting Okra 18-19 Fed		
Site Position:		Northing:	382,937.52 usft
From:	Map	Easting:	794,421.25 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 3' 0.516 N
		Longitude:	103° 30' 59.292 W
		Grid Convergence:	0.43 °

Well	3H		
Well Position	+N/-S	-118.04 usft	Northing:
	+E/-W	1,425.68 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	3,383.00 usft
		Latitude:	32° 2' 59.241 N
		Longitude:	103° 30' 42.738 W
		Ground Level:	3,372.20 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	HDGM	9/6/2017	6.80
			Dip Angle
			59.78
			Field Strength
			47,893

Design	Plan #1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			176.54

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	
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,452.85	4.53	90.00	3,452.38	0.00	17.89	1.00	1.00	0.00	90.00	
10,570.31	4.53	90.00	10,547.62	0.00	579.84	0.00	0.00	0.00	0.00	
11,023.16	0.00	0.00	11,000.00	0.00	597.73	1.00	-1.00	0.00	180.00	
12,104.20	0.00	0.00	12,081.04	0.00	597.73	0.00	0.00	0.00	0.00	
13,004.20	90.00	180.00	12,654.00	-572.96	597.73	10.00	10.00	-20.00	180.00	
22,329.42	90.00	180.00	12,654.00	-9,898.18	597.73	0.00	0.00	0.00	0.00	PBHL (FO 3H)

LEAM Drilling Systems LLC

Planning Report

Database: EDM 5000.1 Multi User Db
 Company: Devon Energy
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 Design: Plan #1

Local Co-ordinate Reference: Well 3H
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 MD Reference: 3372.2 GE + 25' KB @ 3397.20usft
 North Reference: Grid
 Survey Calculation Method: 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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHL (FO 3H)									
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
Start Build 1.00									
3,100.00	1.00	90.00	3,099.99	0.00	0.87	0.05	1.00	1.00	0.00
3,200.00	2.00	90.00	3,199.96	0.00	3.49	0.21	1.00	1.00	0.00
3,300.00	3.00	90.00	3,299.86	0.00	7.85	0.47	1.00	1.00	0.00
3,400.00	4.00	90.00	3,399.68	0.00	13.96	0.84	1.00	1.00	0.00
3,452.85	4.53	90.00	3,452.38	0.00	17.89	1.08	1.00	1.00	0.00
Start 7117.47 hold at 3452.85 MD									
3,500.00	4.53	90.00	3,499.38	0.00	21.61	1.30	0.00	0.00	0.00
3,600.00	4.53	90.00	3,599.07	0.00	29.50	1.78	0.00	0.00	0.00
3,700.00	4.53	90.00	3,698.76	0.00	37.40	2.25	0.00	0.00	0.00
3,800.00	4.53	90.00	3,798.45	0.00	45.30	2.73	0.00	0.00	0.00
3,900.00	4.53	90.00	3,898.13	0.00	53.19	3.21	0.00	0.00	0.00
4,000.00	4.53	90.00	3,997.82	0.00	61.09	3.68	0.00	0.00	0.00
4,100.00	4.53	90.00	4,097.51	0.00	68.98	4.16	0.00	0.00	0.00
4,200.00	4.53	90.00	4,197.20	0.00	76.88	4.63	0.00	0.00	0.00
4,300.00	4.53	90.00	4,296.88	0.00	84.77	5.11	0.00	0.00	0.00
4,400.00	4.53	90.00	4,396.57	0.00	92.67	5.59	0.00	0.00	0.00
4,500.00	4.53	90.00	4,496.26	0.00	100.56	6.06	0.00	0.00	0.00
4,600.00	4.53	90.00	4,595.95	0.00	108.46	6.54	0.00	0.00	0.00
4,700.00	4.53	90.00	4,695.64	0.00	116.35	7.01	0.00	0.00	0.00
4,800.00	4.53	90.00	4,795.32	0.00	124.25	7.49	0.00	0.00	0.00

LEAM Drilling Systems LLC

Planning Report

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Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)
4,900.00	4.53	90.00	4,895.01	0.00	132.15	7.97	0.00	0.00	0.00
5,000.00	4.53	90.00	4,994.70	0.00	140.04	8.44	0.00	0.00	0.00
5,100.00	4.53	90.00	5,094.39	0.00	147.94	8.92	0.00	0.00	0.00
5,200.00	4.53	90.00	5,194.07	0.00	155.83	9.39	0.00	0.00	0.00
5,300.00	4.53	90.00	5,293.76	0.00	163.73	9.87	0.00	0.00	0.00
5,400.00	4.53	90.00	5,393.45	0.00	171.62	10.35	0.00	0.00	0.00
5,500.00	4.53	90.00	5,493.14	0.00	179.52	10.82	0.00	0.00	0.00
5,600.00	4.53	90.00	5,592.83	0.00	187.41	11.30	0.00	0.00	0.00
5,700.00	4.53	90.00	5,692.51	0.00	195.31	11.77	0.00	0.00	0.00
5,800.00	4.53	90.00	5,792.20	0.00	203.21	12.25	0.00	0.00	0.00
5,900.00	4.53	90.00	5,891.89	0.00	211.10	12.72	0.00	0.00	0.00
6,000.00	4.53	90.00	5,991.58	0.00	219.00	13.20	0.00	0.00	0.00
6,100.00	4.53	90.00	6,091.26	0.00	226.89	13.68	0.00	0.00	0.00
6,200.00	4.53	90.00	6,190.95	0.00	234.79	14.15	0.00	0.00	0.00
6,300.00	4.53	90.00	6,290.64	0.00	242.68	14.63	0.00	0.00	0.00
6,400.00	4.53	90.00	6,390.33	0.00	250.58	15.10	0.00	0.00	0.00
6,500.00	4.53	90.00	6,490.02	0.00	258.47	15.58	0.00	0.00	0.00
6,600.00	4.53	90.00	6,589.70	0.00	266.37	16.06	0.00	0.00	0.00
6,700.00	4.53	90.00	6,689.39	0.00	274.26	16.53	0.00	0.00	0.00
6,800.00	4.53	90.00	6,789.08	0.00	282.16	17.01	0.00	0.00	0.00
6,900.00	4.53	90.00	6,888.77	0.00	290.06	17.48	0.00	0.00	0.00
7,000.00	4.53	90.00	6,988.46	0.00	297.95	17.96	0.00	0.00	0.00
7,100.00	4.53	90.00	7,088.14	0.00	305.85	18.44	0.00	0.00	0.00
7,200.00	4.53	90.00	7,187.83	0.00	313.74	18.91	0.00	0.00	0.00
7,300.00	4.53	90.00	7,287.52	0.00	321.64	19.39	0.00	0.00	0.00
7,400.00	4.53	90.00	7,387.21	0.00	329.53	19.86	0.00	0.00	0.00
7,500.00	4.53	90.00	7,486.89	0.00	337.43	20.34	0.00	0.00	0.00
7,600.00	4.53	90.00	7,586.58	0.00	345.32	20.82	0.00	0.00	0.00
7,700.00	4.53	90.00	7,686.27	0.00	353.22	21.29	0.00	0.00	0.00
7,800.00	4.53	90.00	7,785.96	0.00	361.11	21.77	0.00	0.00	0.00
7,900.00	4.53	90.00	7,885.65	0.00	369.01	22.24	0.00	0.00	0.00
8,000.00	4.53	90.00	7,985.33	0.00	376.91	22.72	0.00	0.00	0.00
8,100.00	4.53	90.00	8,085.02	0.00	384.80	23.20	0.00	0.00	0.00
8,200.00	4.53	90.00	8,184.71	0.00	392.70	23.67	0.00	0.00	0.00
8,300.00	4.53	90.00	8,284.40	0.00	400.59	24.15	0.00	0.00	0.00
8,400.00	4.53	90.00	8,384.08	0.00	408.49	24.62	0.00	0.00	0.00
8,500.00	4.53	90.00	8,483.77	0.00	416.38	25.10	0.00	0.00	0.00
8,600.00	4.53	90.00	8,583.46	0.00	424.28	25.57	0.00	0.00	0.00
8,700.00	4.53	90.00	8,683.15	0.00	432.17	26.05	0.00	0.00	0.00
8,800.00	4.53	90.00	8,782.84	0.00	440.07	26.53	0.00	0.00	0.00
8,900.00	4.53	90.00	8,882.52	0.00	447.96	27.00	0.00	0.00	0.00
9,000.00	4.53	90.00	8,982.21	0.00	455.86	27.48	0.00	0.00	0.00
9,100.00	4.53	90.00	9,081.90	0.00	463.76	27.95	0.00	0.00	0.00
9,200.00	4.53	90.00	9,181.59	0.00	471.65	28.43	0.00	0.00	0.00
9,300.00	4.53	90.00	9,281.28	0.00	479.55	28.91	0.00	0.00	0.00
9,400.00	4.53	90.00	9,380.96	0.00	487.44	29.38	0.00	0.00	0.00
9,500.00	4.53	90.00	9,480.65	0.00	495.34	29.86	0.00	0.00	0.00
9,600.00	4.53	90.00	9,580.34	0.00	503.23	30.33	0.00	0.00	0.00
9,700.00	4.53	90.00	9,680.03	0.00	511.13	30.81	0.00	0.00	0.00
9,800.00	4.53	90.00	9,779.71	0.00	519.02	31.29	0.00	0.00	0.00
9,900.00	4.53	90.00	9,879.40	0.00	526.92	31.76	0.00	0.00	0.00
10,000.00	4.53	90.00	9,979.09	0.00	534.81	32.24	0.00	0.00	0.00
10,100.00	4.53	90.00	10,078.78	0.00	542.71	32.71	0.00	0.00	0.00
10,200.00	4.53	90.00	10,178.47	0.00	550.61	33.19	0.00	0.00	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: Fighting Okra 18-19 Fed
 Well: 3H
 Wellbore: OH
 Design: Plan #1

Local Co-ordinate Reference: Well 3H
 TVD Reference: 3372.2 GE + 25' KB @ 3397.20usft
 MD Reference: 3372.2 GE + 25' KB @ 3397.20usft
 North Reference: Grid
 Survey Calculation Method: 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)
10,300.00	4.53	90.00	10,278.15	0.00	558.50	33.67	0.00	0.00	0.00
10,400.00	4.53	90.00	10,377.84	0.00	566.40	34.14	0.00	0.00	0.00
10,500.00	4.53	90.00	10,477.53	0.00	574.29	34.62	0.00	0.00	0.00
10,570.31	4.53	90.00	10,547.62	0.00	579.84	34.95	0.00	0.00	0.00
Start Drop -1.00									
10,600.00	4.23	90.00	10,577.22	0.00	582.11	35.09	1.00	-1.00	0.00
10,700.00	3.23	90.00	10,677.01	0.00	588.62	35.48	1.00	-1.00	0.00
10,800.00	2.23	90.00	10,776.89	0.00	593.38	35.77	1.00	-1.00	0.00
10,900.00	1.23	90.00	10,876.85	0.00	596.41	35.95	1.00	-1.00	0.00
11,000.00	0.23	90.00	10,976.84	0.00	597.68	36.03	1.00	-1.00	0.00
11,023.16	0.00	0.00	11,000.00	0.00	597.73	36.03	1.00	-1.00	0.00
Start 1081.04 hold at 11023.16 MD									
11,100.00	0.00	0.00	11,076.84	0.00	597.73	36.03	0.00	0.00	0.00
11,200.00	0.00	0.00	11,176.84	0.00	597.73	36.03	0.00	0.00	0.00
11,300.00	0.00	0.00	11,276.84	0.00	597.73	36.03	0.00	0.00	0.00
11,400.00	0.00	0.00	11,376.84	0.00	597.73	36.03	0.00	0.00	0.00
11,500.00	0.00	0.00	11,476.84	0.00	597.73	36.03	0.00	0.00	0.00
11,600.00	0.00	0.00	11,576.84	0.00	597.73	36.03	0.00	0.00	0.00
11,700.00	0.00	0.00	11,676.84	0.00	597.73	36.03	0.00	0.00	0.00
11,800.00	0.00	0.00	11,776.84	0.00	597.73	36.03	0.00	0.00	0.00
11,900.00	0.00	0.00	11,876.84	0.00	597.73	36.03	0.00	0.00	0.00
12,000.00	0.00	0.00	11,976.84	0.00	597.73	36.03	0.00	0.00	0.00
12,104.20	0.00	0.00	12,081.04	0.00	597.73	36.03	0.00	0.00	0.00
Start DLS 10.00 TFO 180.00									
12,150.00	4.58	180.00	12,126.79	-1.83	597.73	37.86	10.00	10.00	0.00
12,200.00	9.58	180.00	12,176.39	-7.99	597.73	44.01	10.00	10.00	0.00
12,250.00	14.58	180.00	12,225.27	-18.45	597.73	54.45	10.00	10.00	0.00
12,300.00	19.58	180.00	12,273.05	-33.13	597.73	69.10	10.00	10.00	0.00
12,350.00	24.58	180.00	12,319.37	-51.92	597.73	87.86	10.00	10.00	0.00
12,400.00	29.58	180.00	12,363.87	-74.67	597.73	110.57	10.00	10.00	0.00
12,450.00	34.58	180.00	12,406.22	-101.22	597.73	137.07	10.00	10.00	0.00
12,500.00	39.58	180.00	12,446.10	-131.36	597.73	167.15	10.00	10.00	0.00
12,550.00	44.58	180.00	12,483.20	-164.86	597.73	200.59	10.00	10.00	0.00
12,600.00	49.58	180.00	12,517.24	-201.46	597.73	237.12	10.00	10.00	0.00
12,650.00	54.58	180.00	12,547.96	-240.89	597.73	276.48	10.00	10.00	0.00
12,700.00	59.58	180.00	12,575.12	-282.85	597.73	318.36	10.00	10.00	0.00
12,750.00	64.58	180.00	12,598.53	-327.01	597.73	362.45	10.00	10.00	0.00
12,800.00	69.58	180.00	12,617.99	-373.05	597.73	408.40	10.00	10.00	0.00
12,850.00	74.58	180.00	12,633.37	-420.61	597.73	455.88	10.00	10.00	0.00
12,900.00	79.58	180.00	12,644.55	-469.33	597.73	504.51	10.00	10.00	0.00
12,950.00	84.58	180.00	12,651.44	-518.84	597.73	553.92	10.00	10.00	0.00
13,004.20	90.00	180.00	12,654.00	-572.96	597.73	607.95	10.00	10.00	0.00
Start 9325.22 hold at 13004.20 MD									
13,100.00	90.00	180.00	12,654.00	-668.76	597.73	703.57	0.00	0.00	0.00
13,200.00	90.00	180.00	12,654.00	-768.76	597.73	803.39	0.00	0.00	0.00
13,300.00	90.00	180.00	12,654.00	-868.76	597.73	903.21	0.00	0.00	0.00
13,400.00	90.00	180.00	12,654.00	-968.76	597.73	1,003.02	0.00	0.00	0.00
13,500.00	90.00	180.00	12,654.00	-1,068.76	597.73	1,102.84	0.00	0.00	0.00
13,600.00	90.00	180.00	12,654.00	-1,168.76	597.73	1,202.66	0.00	0.00	0.00
13,700.00	90.00	180.00	12,654.00	-1,268.76	597.73	1,302.48	0.00	0.00	0.00
13,800.00	90.00	180.00	12,654.00	-1,368.76	597.73	1,402.30	0.00	0.00	0.00
13,900.00	90.00	180.00	12,654.00	-1,468.76	597.73	1,502.12	0.00	0.00	0.00
14,000.00	90.00	180.00	12,654.00	-1,568.76	597.73	1,601.93	0.00	0.00	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: Fighting Okra 18-19 Fed
 Well: 3H
 Wellbore: OH
 Design: Plan #1

Local Co-ordinate Reference: Well 3H
 TVD Reference: 3372.2 GE + 25' KB @ 3397.20usft
 MD Reference: 3372.2 GE + 25' KB @ 3397.20usft
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)
14,100.00	90.00	180.00	12,654.00	-1,668.76	597.73	1,701.75	0.00	0.00	0.00
14,200.00	90.00	180.00	12,654.00	-1,768.76	597.73	1,801.57	0.00	0.00	0.00
14,300.00	90.00	180.00	12,654.00	-1,868.76	597.73	1,901.39	0.00	0.00	0.00
14,400.00	90.00	180.00	12,654.00	-1,968.76	597.73	2,001.21	0.00	0.00	0.00
14,500.00	90.00	180.00	12,654.00	-2,068.76	597.73	2,101.02	0.00	0.00	0.00
14,600.00	90.00	180.00	12,654.00	-2,168.76	597.73	2,200.84	0.00	0.00	0.00
14,700.00	90.00	180.00	12,654.00	-2,268.76	597.73	2,300.66	0.00	0.00	0.00
14,800.00	90.00	180.00	12,654.00	-2,368.76	597.73	2,400.48	0.00	0.00	0.00
14,900.00	90.00	180.00	12,654.00	-2,468.76	597.73	2,500.30	0.00	0.00	0.00
15,000.00	90.00	180.00	12,654.00	-2,568.76	597.73	2,600.11	0.00	0.00	0.00
15,100.00	90.00	180.00	12,654.00	-2,668.76	597.73	2,699.93	0.00	0.00	0.00
15,200.00	90.00	180.00	12,654.00	-2,768.76	597.73	2,799.75	0.00	0.00	0.00
15,300.00	90.00	180.00	12,654.00	-2,868.76	597.73	2,899.57	0.00	0.00	0.00
15,400.00	90.00	180.00	12,654.00	-2,968.76	597.73	2,999.39	0.00	0.00	0.00
15,500.00	90.00	180.00	12,654.00	-3,068.76	597.73	3,099.21	0.00	0.00	0.00
15,600.00	90.00	180.00	12,654.00	-3,168.76	597.73	3,199.02	0.00	0.00	0.00
15,700.00	90.00	180.00	12,654.00	-3,268.76	597.73	3,298.84	0.00	0.00	0.00
15,800.00	90.00	180.00	12,654.00	-3,368.76	597.73	3,398.66	0.00	0.00	0.00
15,900.00	90.00	180.00	12,654.00	-3,468.76	597.73	3,498.48	0.00	0.00	0.00
16,000.00	90.00	180.00	12,654.00	-3,568.76	597.73	3,598.30	0.00	0.00	0.00
16,100.00	90.00	180.00	12,654.00	-3,668.76	597.73	3,698.11	0.00	0.00	0.00
16,200.00	90.00	180.00	12,654.00	-3,768.76	597.73	3,797.93	0.00	0.00	0.00
16,300.00	90.00	180.00	12,654.00	-3,868.76	597.73	3,897.75	0.00	0.00	0.00
16,400.00	90.00	180.00	12,654.00	-3,968.76	597.73	3,997.57	0.00	0.00	0.00
16,500.00	90.00	180.00	12,654.00	-4,068.76	597.73	4,097.39	0.00	0.00	0.00
16,600.00	90.00	180.00	12,654.00	-4,168.76	597.73	4,197.21	0.00	0.00	0.00
16,700.00	90.00	180.00	12,654.00	-4,268.76	597.73	4,297.02	0.00	0.00	0.00
16,800.00	90.00	180.00	12,654.00	-4,368.76	597.73	4,396.84	0.00	0.00	0.00
16,900.00	90.00	180.00	12,654.00	-4,468.76	597.73	4,496.66	0.00	0.00	0.00
17,000.00	90.00	180.00	12,654.00	-4,568.76	597.73	4,596.48	0.00	0.00	0.00
17,100.00	90.00	180.00	12,654.00	-4,668.76	597.73	4,696.30	0.00	0.00	0.00
17,200.00	90.00	180.00	12,654.00	-4,768.76	597.73	4,796.11	0.00	0.00	0.00
17,300.00	90.00	180.00	12,654.00	-4,868.76	597.73	4,895.93	0.00	0.00	0.00
17,400.00	90.00	180.00	12,654.00	-4,968.76	597.73	4,995.75	0.00	0.00	0.00
17,500.00	90.00	180.00	12,654.00	-5,068.76	597.73	5,095.57	0.00	0.00	0.00
17,600.00	90.00	180.00	12,654.00	-5,168.76	597.73	5,195.39	0.00	0.00	0.00
17,700.00	90.00	180.00	12,654.00	-5,268.76	597.73	5,295.21	0.00	0.00	0.00
17,800.00	90.00	180.00	12,654.00	-5,368.76	597.73	5,395.02	0.00	0.00	0.00
17,900.00	90.00	180.00	12,654.00	-5,468.76	597.73	5,494.84	0.00	0.00	0.00
18,000.00	90.00	180.00	12,654.00	-5,568.76	597.73	5,594.66	0.00	0.00	0.00
18,100.00	90.00	180.00	12,654.00	-5,668.76	597.73	5,694.48	0.00	0.00	0.00
18,200.00	90.00	180.00	12,654.00	-5,768.76	597.73	5,794.30	0.00	0.00	0.00
18,300.00	90.00	180.00	12,654.00	-5,868.76	597.73	5,894.11	0.00	0.00	0.00
18,400.00	90.00	180.00	12,654.00	-5,968.76	597.73	5,993.93	0.00	0.00	0.00
18,500.00	90.00	180.00	12,654.00	-6,068.76	597.73	6,093.75	0.00	0.00	0.00
18,600.00	90.00	180.00	12,654.00	-6,168.76	597.73	6,193.57	0.00	0.00	0.00
18,700.00	90.00	180.00	12,654.00	-6,268.76	597.73	6,293.39	0.00	0.00	0.00
18,800.00	90.00	180.00	12,654.00	-6,368.76	597.73	6,393.21	0.00	0.00	0.00
18,900.00	90.00	180.00	12,654.00	-6,468.76	597.73	6,493.02	0.00	0.00	0.00
19,000.00	90.00	180.00	12,654.00	-6,568.76	597.73	6,592.84	0.00	0.00	0.00
19,100.00	90.00	180.00	12,654.00	-6,668.76	597.73	6,692.66	0.00	0.00	0.00
19,200.00	90.00	180.00	12,654.00	-6,768.76	597.73	6,792.48	0.00	0.00	0.00
19,300.00	90.00	180.00	12,654.00	-6,868.76	597.73	6,892.30	0.00	0.00	0.00
19,400.00	90.00	180.00	12,654.00	-6,968.76	597.73	6,992.11	0.00	0.00	0.00

LEAM Drilling Systems LLC

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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)
19,500.00	90.00	180.00	12,654.00	-7,068.76	597.73	7,091.93	0.00	0.00	0.00
19,600.00	90.00	180.00	12,654.00	-7,168.76	597.73	7,191.75	0.00	0.00	0.00
19,700.00	90.00	180.00	12,654.00	-7,268.76	597.73	7,291.57	0.00	0.00	0.00
19,800.00	90.00	180.00	12,654.00	-7,368.76	597.73	7,391.39	0.00	0.00	0.00
19,900.00	90.00	180.00	12,654.00	-7,468.76	597.73	7,491.21	0.00	0.00	0.00
20,000.00	90.00	180.00	12,654.00	-7,568.76	597.73	7,591.02	0.00	0.00	0.00
20,100.00	90.00	180.00	12,654.00	-7,668.76	597.73	7,690.84	0.00	0.00	0.00
20,200.00	90.00	180.00	12,654.00	-7,768.76	597.73	7,790.66	0.00	0.00	0.00
20,300.00	90.00	180.00	12,654.00	-7,868.76	597.73	7,890.48	0.00	0.00	0.00
20,400.00	90.00	180.00	12,654.00	-7,968.76	597.73	7,990.30	0.00	0.00	0.00
20,500.00	90.00	180.00	12,654.00	-8,068.76	597.73	8,090.11	0.00	0.00	0.00
20,600.00	90.00	180.00	12,654.00	-8,168.76	597.73	8,189.93	0.00	0.00	0.00
20,700.00	90.00	180.00	12,654.00	-8,268.76	597.73	8,289.75	0.00	0.00	0.00
20,800.00	90.00	180.00	12,654.00	-8,368.76	597.73	8,389.57	0.00	0.00	0.00
20,900.00	90.00	180.00	12,654.00	-8,468.76	597.73	8,489.39	0.00	0.00	0.00
21,000.00	90.00	180.00	12,654.00	-8,568.76	597.73	8,589.20	0.00	0.00	0.00
21,100.00	90.00	180.00	12,654.00	-8,668.76	597.73	8,689.02	0.00	0.00	0.00
21,200.00	90.00	180.00	12,654.00	-8,768.76	597.73	8,788.84	0.00	0.00	0.00
21,300.00	90.00	180.00	12,654.00	-8,868.76	597.73	8,888.66	0.00	0.00	0.00
21,400.00	90.00	180.00	12,654.00	-8,968.76	597.73	8,988.48	0.00	0.00	0.00
21,500.00	90.00	180.00	12,654.00	-9,068.76	597.73	9,088.30	0.00	0.00	0.00
21,600.00	90.00	180.00	12,654.00	-9,168.76	597.73	9,188.11	0.00	0.00	0.00
21,700.00	90.00	180.00	12,654.00	-9,268.76	597.73	9,287.93	0.00	0.00	0.00
21,800.00	90.00	180.00	12,654.00	-9,368.76	597.73	9,387.75	0.00	0.00	0.00
21,900.00	90.00	180.00	12,654.00	-9,468.76	597.73	9,487.57	0.00	0.00	0.00
22,000.00	90.00	180.00	12,654.00	-9,568.76	597.73	9,587.39	0.00	0.00	0.00
22,100.00	90.00	180.00	12,654.00	-9,668.76	597.73	9,687.20	0.00	0.00	0.00
22,200.00	90.00	180.00	12,654.00	-9,768.76	597.73	9,787.02	0.00	0.00	0.00
22,300.00	90.00	180.00	12,654.00	-9,868.76	597.73	9,886.84	0.00	0.00	0.00
22,329.42	90.00	180.00	12,654.00	-9,898.18	597.73	9,916.21	0.00	0.00	0.00

TD at 22329.42 - PBHL (FO 3H)

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 (FO 3H)	0.00	0.00	0.00	0.00	0.00	382,819.48	795,846.93	32° 2' 59.241 N	103° 30' 42.738 W
- plan hits target center									
- Point									
PBHL (FO 3H)	0.00	0.00	12,654.00	-9,898.18	597.73	372,921.30	796,444.66	32° 1' 21.250 N	103° 30' 36.670 W
- plan hits target center									
- Point									

LEAM Drilling Systems LLC

Planning Report

Database:	EDM 5000.1 Multi User Db	Local Co-ordinate Reference:	Well 3H
Company:	Devon Energy	TVD Reference:	3372.2 GE + 25' KB @ 3397.20usft
Project:	Lea County, NM (NAD-83)	MD Reference:	3372.2 GE + 25' KB @ 3397.20usft
Site:	Fighting Okra 18-19 Fed	North Reference:	Grid
Well:	3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
3,000.00	3,000.00	0.00	0.00	Start Build 1.00
3,452.85	3,452.38	0.00	17.89	Start 7117.47 hold at 3452.85 MD
10,570.31	10,547.62	0.00	579.84	Start Drop -1.00
11,023.16	11,000.00	0.00	597.73	Start 1081.04 hold at 11023.16 MD
12,104.20	12,081.04	0.00	597.73	Start DLS 10.00 TFO 180.00
13,004.20	12,654.00	-572.96	597.73	Start 9325.22 hold at 13004.20 MD
22,329.42	12,654.00	-9,898.18	597.73	TD at 22329.42