

Devon Energy

Project: Lea County, NM (NAD-83)
 Site: Green Wave 20-32 Fed State Com
 Well: 3H
 Wellbore: OH
 Design: Plan #1

3320.00 GE + 32.00 KB @ 3352.00usft
 Ground Level: 3320.00



Azimuths to Grid North
 True North: -0.44°
 Magnetic North: 6.37°
 Magnetic Field
 Strength: 47877.5snT
 Dip Angle: 59.77°
 Date: 7/28/2017
 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

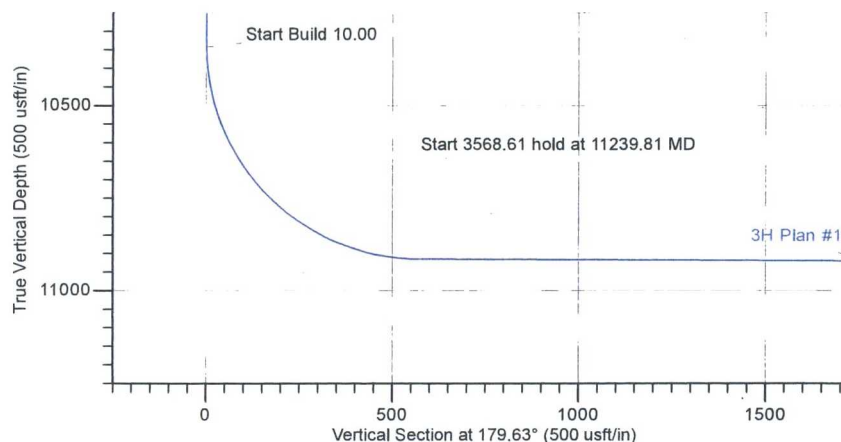
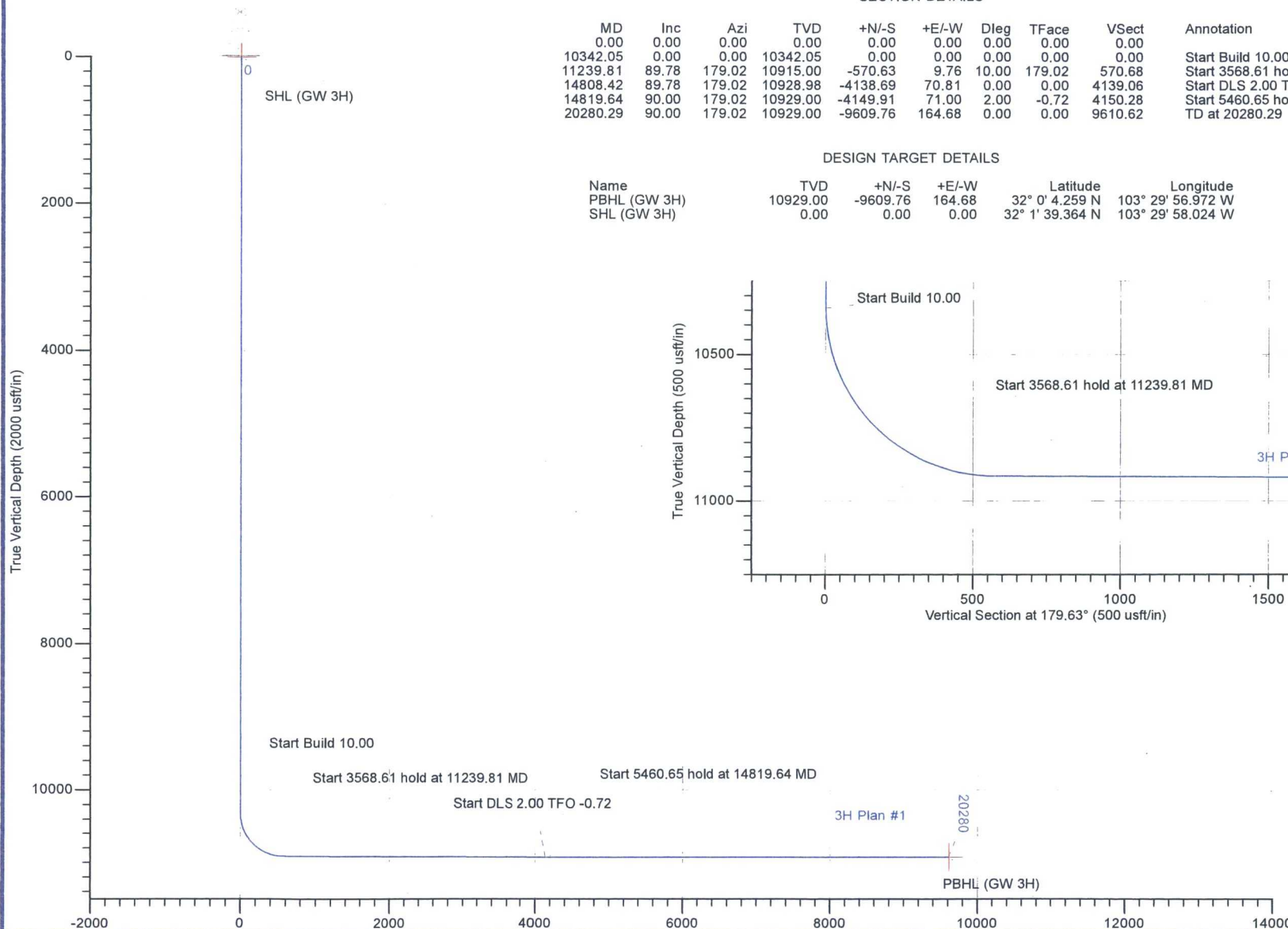


SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10342.05	0.00	0.00	10342.05	0.00	0.00	0.00	0.00	0.00	Start Build 10.00
11239.81	89.78	179.02	10915.00	-570.63	9.76	10.00	179.02	570.68	Start 3568.61 hold at 11239.81 MD
14808.42	89.78	179.02	10928.98	-4138.69	70.81	0.00	0.00	4139.06	Start DLS 2.00 TFO -0.72
14819.64	90.00	179.02	10929.00	-4149.91	71.00	2.00	-0.72	4150.28	Start 5460.65 hold at 14819.64 MD
20280.29	90.00	179.02	10929.00	-9609.76	164.68	0.00	0.00	9610.62	TD at 20280.29

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Latitude	Longitude
PBHL (GW 3H)	10929.00	-9609.76	164.68	32° 0' 4.259 N	103° 29' 56.972 W
SHL (GW 3H)	0.00	0.00	0.00	32° 1' 39.364 N	103° 29' 58.024 W



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

Plan: Plan #1 (3H/OH)
 Green Wave 20-32 Fed State Com
 Created By: Dustin Ault
 Date: 14:51, August 02 2017
 Approved: _____
 Date: _____

Devon Energy

Project: Lea County, NM (NAD-83)
 Site: Green Wave 20-32 Fed State Com
 Well: 3H
 Wellbore: OH
 Design: Plan #1



Azimuths to Grid North
 True North: -0.44°
 Magnetic North: 6.37°

Magnetic Field
 Strength: 47877.5snT
 Dip Angle: 59.77°
 Date: 7/28/2017
 Model: HDGM



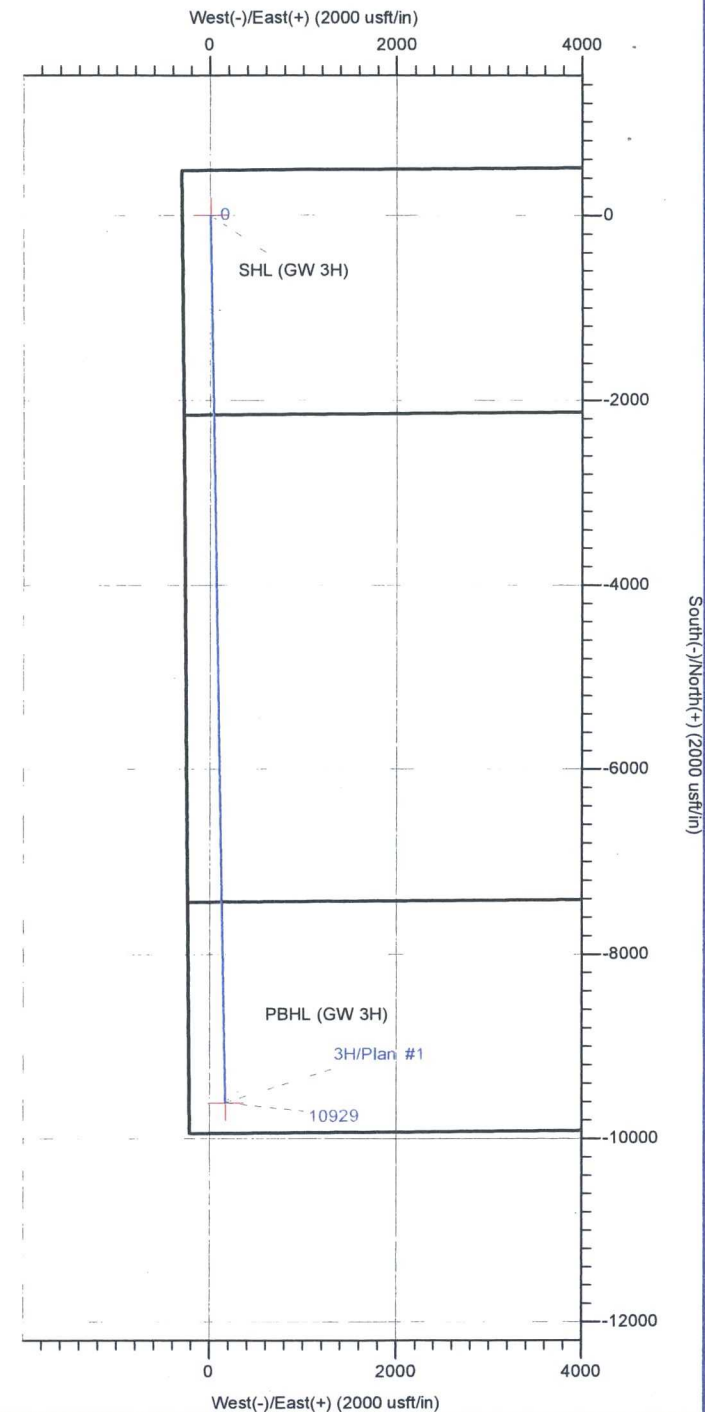
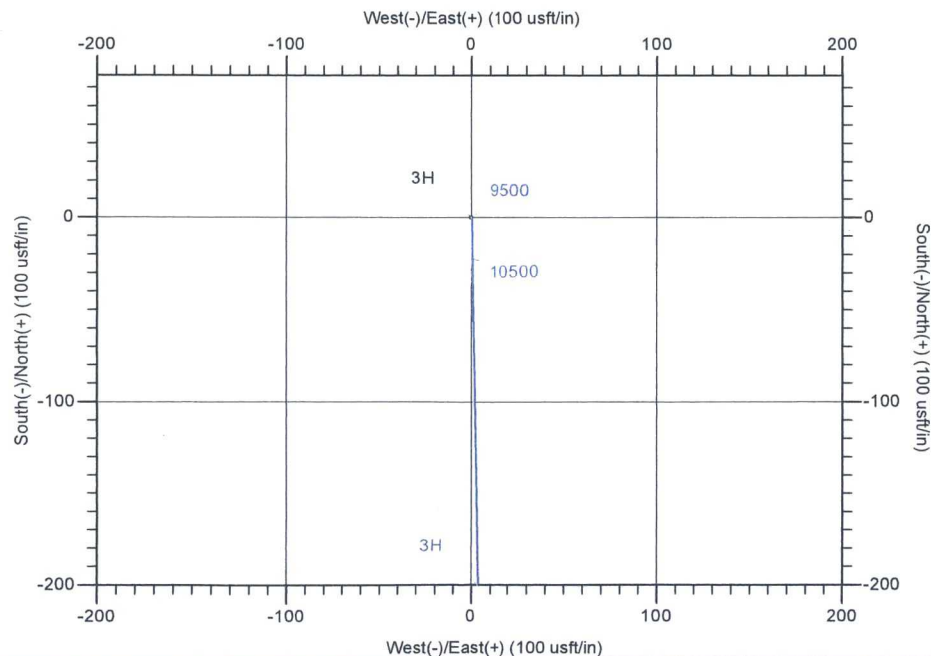
PROJECT DETAILS: Lea County, NM (NAD-83)
 Geodetic System: US State Plane 1983
 Datum: North American Datum 1983
 Ellipsoid: GRS 1980
 Zone: New Mexico Eastern Zone

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
10342.05	0.00	0.00	10342.05	0.00	0.00	0.00	0.00	0.00	
11239.81	89.78	179.02	10915.00	-570.63	9.76	10.00	179.02	570.68	
14808.42	89.78	179.02	10928.98	-4138.69	70.81	0.00	0.00	4139.06	
14819.64	90.00	179.02	10929.00	-4149.91	71.00	2.00	-0.72	4150.28	
20280.29	90.00	179.02	10929.00	-9609.76	164.68	0.00	0.00	9610.62	PBHL (GW 3H)

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL (GW 3H)	10929.00	-9609.76	164.68	365167.50	799922.31	32° 0' 4.259 N	103° 29' 56.972 W
SHL (GW 3H)	0.00	0.00	0.00	374777.26	799757.63	32° 1' 39.364 N	103° 29' 58.024 W



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

Plan: Plan #1 (3H/OH)
 Green Wave 20-32 Fed State Com
 Created By: Dustin Ault Date: 14:52, August 02 2017
 Date: _____
 Approved: _____ Date: _____

Devon Energy

Lea County, NM (NAD-83)

Green Wave 20-32 Fed State Com

3H

OH

Plan: Plan #1

Standard Planning Report

02 August, 2017

LEAM Drilling Systems LLC

Planning Report

Database: EDM 5000.1 Multi User Db
Company: Devon Energy
Project: Lea County, NM (NAD-83)
Site: Green Wave 20-32 Fed State Com
Well: 3H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well 3H
TVD Reference: 3320.00 GE + 32.00 KB @ 3352.00usft
MD Reference: 3320.00 GE + 32.00 KB @ 3352.00usft
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	Green Wave 20-32 Fed State Com				
Site Position:		Northing:	375,305.15 usft	Latitude:	32° 1' 44.229 N
From:	Map	Easting:	804,412.02 usft	Longitude:	103° 29' 3.912 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	0.45 °

Well	3H				
Well Position	+N/-S	-527.89 usft	Northing:	374,777.26 usft	Latitude: 32° 1' 39.364 N
	+E/-W	-4,654.39 usft	Easting:	799,757.63 usft	Longitude: 103° 29' 58.024 W
Position Uncertainty	0.00 usft	Wellhead Elevation:	3,363.60 usft	Ground Level:	3,320.00 usft

Wellbore	OH				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	7/28/2017	6.82	59.77	47,878

Design	Plan #1				
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	179.63	

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	
10,342.05	0.00	0.00	10,342.05	0.00	0.00	0.00	0.00	0.00	0.00	
11,239.81	89.78	179.02	10,915.00	-570.63	9.76	10.00	10.00	0.00	179.02	
14,808.42	89.78	179.02	10,928.98	-4,138.69	70.81	0.00	0.00	0.00	0.00	
14,819.64	90.00	179.02	10,929.00	-4,149.91	71.00	2.00	2.00	-0.03	-0.72	
20,280.29	90.00	179.02	10,929.00	-9,609.76	164.68	0.00	0.00	0.00	0.00	PBHL (GW 3H)

LEAM Drilling Systems LLC

Planning Report

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 MD Reference: 3320.00 GE + 32.00 KB @ 3352.00usft
 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 (GW 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
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
 Company: Devon Energy
 Project: Lea County, NM (NAD-83)
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 Wellbore: OH
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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)
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
9,900.00	0.00	0.00	9,900.00	0.00	0.00	0.00	0.00	0.00	0.00
10,000.00	0.00	0.00	10,000.00	0.00	0.00	0.00	0.00	0.00	0.00
10,100.00	0.00	0.00	10,100.00	0.00	0.00	0.00	0.00	0.00	0.00
10,200.00	0.00	0.00	10,200.00	0.00	0.00	0.00	0.00	0.00	0.00
10,300.00	0.00	0.00	10,300.00	0.00	0.00	0.00	0.00	0.00	0.00
10,342.05	0.00	0.00	10,342.05	0.00	0.00	0.00	0.00	0.00	0.00

Start Build 10.00

LEAM Drilling Systems LLC

Planning Report

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 Site: Green Wave 20-32 Fed State Com
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 TVD Reference: 3320.00 GE + 32.00 KB @ 3352.00usft
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 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)
10,350.00	0.80	179.02	10,350.00	-0.06	0.00	0.06	10.00	10.00	0.00
10,400.00	5.80	179.02	10,399.90	-2.93	0.05	2.93	10.00	10.00	0.00
10,450.00	10.80	179.02	10,449.36	-10.14	0.17	10.14	10.00	10.00	0.00
10,500.00	15.80	179.02	10,498.01	-21.63	0.37	21.63	10.00	10.00	0.00
10,550.00	20.80	179.02	10,545.46	-37.32	0.64	37.32	10.00	10.00	0.00
10,600.00	25.80	179.02	10,591.37	-57.08	0.98	57.09	10.00	10.00	0.00
10,650.00	30.80	179.02	10,635.39	-80.77	1.38	80.78	10.00	10.00	0.00
10,700.00	35.80	179.02	10,677.17	-108.21	1.85	108.22	10.00	10.00	0.00
10,750.00	40.80	179.02	10,716.39	-139.18	2.38	139.19	10.00	10.00	0.00
10,800.00	45.80	179.02	10,752.77	-173.45	2.97	173.47	10.00	10.00	0.00
10,850.00	50.80	179.02	10,786.03	-210.76	3.61	210.78	10.00	10.00	0.00
10,900.00	55.80	179.02	10,815.90	-250.83	4.29	250.85	10.00	10.00	0.00
10,950.00	60.80	179.02	10,842.17	-293.35	5.02	293.37	10.00	10.00	0.00
11,000.00	65.80	179.02	10,864.64	-337.99	5.78	338.02	10.00	10.00	0.00
11,050.00	70.80	179.02	10,883.12	-384.43	6.58	384.46	10.00	10.00	0.00
11,100.00	75.80	179.02	10,897.49	-432.30	7.40	432.33	10.00	10.00	0.00
11,150.00	80.80	179.02	10,907.63	-481.23	8.23	481.28	10.00	10.00	0.00
11,200.00	85.80	179.02	10,913.47	-530.87	9.08	530.92	10.00	10.00	0.00
11,239.81	89.78	179.02	10,915.00	-570.63	9.76	570.68	10.00	10.00	0.00
Start 3568.61 hold at 11239.81 MD									
11,300.00	89.78	179.02	10,915.24	-630.82	10.79	630.87	0.00	0.00	0.00
11,400.00	89.78	179.02	10,915.63	-730.80	12.50	730.87	0.00	0.00	0.00
11,500.00	89.78	179.02	10,916.02	-830.78	14.21	830.86	0.00	0.00	0.00
11,600.00	89.78	179.02	10,916.41	-930.77	15.92	930.85	0.00	0.00	0.00
11,700.00	89.78	179.02	10,916.81	-1,030.75	17.63	1,030.85	0.00	0.00	0.00
11,800.00	89.78	179.02	10,917.20	-1,130.74	19.35	1,130.84	0.00	0.00	0.00
11,900.00	89.78	179.02	10,917.59	-1,230.72	21.06	1,230.83	0.00	0.00	0.00
12,000.00	89.78	179.02	10,917.98	-1,330.71	22.77	1,330.83	0.00	0.00	0.00
12,100.00	89.78	179.02	10,918.37	-1,430.69	24.48	1,430.82	0.00	0.00	0.00
12,200.00	89.78	179.02	10,918.76	-1,530.68	26.19	1,530.81	0.00	0.00	0.00
12,300.00	89.78	179.02	10,919.16	-1,630.66	27.90	1,630.81	0.00	0.00	0.00
12,400.00	89.78	179.02	10,919.55	-1,730.65	29.61	1,730.80	0.00	0.00	0.00
12,500.00	89.78	179.02	10,919.94	-1,830.63	31.32	1,830.79	0.00	0.00	0.00
12,600.00	89.78	179.02	10,920.33	-1,930.61	33.03	1,930.79	0.00	0.00	0.00
12,700.00	89.78	179.02	10,920.72	-2,030.60	34.74	2,030.78	0.00	0.00	0.00
12,800.00	89.78	179.02	10,921.11	-2,130.58	36.45	2,130.78	0.00	0.00	0.00
12,900.00	89.78	179.02	10,921.50	-2,230.57	38.16	2,230.77	0.00	0.00	0.00
13,000.00	89.78	179.02	10,921.90	-2,330.55	39.87	2,330.76	0.00	0.00	0.00
13,100.00	89.78	179.02	10,922.29	-2,430.54	41.58	2,430.76	0.00	0.00	0.00
13,200.00	89.78	179.02	10,922.68	-2,530.52	43.29	2,530.75	0.00	0.00	0.00
13,300.00	89.78	179.02	10,923.07	-2,630.51	45.00	2,630.74	0.00	0.00	0.00
13,400.00	89.78	179.02	10,923.46	-2,730.49	46.72	2,730.74	0.00	0.00	0.00
13,500.00	89.78	179.02	10,923.85	-2,830.48	48.43	2,830.73	0.00	0.00	0.00
13,600.00	89.78	179.02	10,924.25	-2,930.46	50.14	2,930.72	0.00	0.00	0.00
13,700.00	89.78	179.02	10,924.64	-3,030.45	51.85	3,030.72	0.00	0.00	0.00
13,800.00	89.78	179.02	10,925.03	-3,130.43	53.56	3,130.71	0.00	0.00	0.00
13,900.00	89.78	179.02	10,925.42	-3,230.41	55.27	3,230.70	0.00	0.00	0.00
14,000.00	89.78	179.02	10,925.81	-3,330.40	56.98	3,330.70	0.00	0.00	0.00
14,100.00	89.78	179.02	10,926.20	-3,430.38	58.69	3,430.69	0.00	0.00	0.00
14,200.00	89.78	179.02	10,926.60	-3,530.37	60.40	3,530.69	0.00	0.00	0.00
14,300.00	89.78	179.02	10,926.99	-3,630.35	62.11	3,630.68	0.00	0.00	0.00
14,400.00	89.78	179.02	10,927.38	-3,730.34	63.82	3,730.67	0.00	0.00	0.00
14,500.00	89.78	179.02	10,927.77	-3,830.32	65.53	3,830.67	0.00	0.00	0.00
14,600.00	89.78	179.02	10,928.16	-3,930.31	67.24	3,930.66	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: Green Wave 20-32 Fed State Com
Well: 3H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well 3H
TVD Reference: 3320.00 GE + 32.00 KB @ 3352.00usft
MD Reference: 3320.00 GE + 32.00 KB @ 3352.00usft
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)
14,700.00	89.78	179.02	10,928.55	-4,030.29	68.95	4,030.65	0.00	0.00	0.00
14,808.42	89.78	179.02	10,928.98	-4,138.69	70.81	4,139.06	0.00	0.00	0.00
Start DLS 2.00 TFO -0.72									
14,819.64	90.00	179.02	10,929.00	-4,149.91	71.00	4,150.28	2.00	2.00	-0.03
Start 5460.65 hold at 14819.64 MD									
14,900.00	90.00	179.02	10,929.00	-4,230.26	72.38	4,230.64	0.00	0.00	0.00
15,000.00	90.00	179.02	10,929.00	-4,330.25	74.09	4,330.63	0.00	0.00	0.00
15,100.00	90.00	179.02	10,929.00	-4,430.23	75.81	4,430.63	0.00	0.00	0.00
15,200.00	90.00	179.02	10,929.00	-4,530.22	77.53	4,530.62	0.00	0.00	0.00
15,300.00	90.00	179.02	10,929.00	-4,630.20	79.24	4,630.62	0.00	0.00	0.00
15,400.00	90.00	179.02	10,929.00	-4,730.19	80.96	4,730.61	0.00	0.00	0.00
15,500.00	90.00	179.02	10,929.00	-4,830.17	82.67	4,830.61	0.00	0.00	0.00
15,600.00	90.00	179.02	10,929.00	-4,930.16	84.39	4,930.60	0.00	0.00	0.00
15,700.00	90.00	179.02	10,929.00	-5,030.14	86.10	5,030.59	0.00	0.00	0.00
15,800.00	90.00	179.02	10,929.00	-5,130.13	87.82	5,130.59	0.00	0.00	0.00
15,900.00	90.00	179.02	10,929.00	-5,230.11	89.53	5,230.58	0.00	0.00	0.00
16,000.00	90.00	179.02	10,929.00	-5,330.10	91.25	5,330.58	0.00	0.00	0.00
16,100.00	90.00	179.02	10,929.00	-5,430.08	92.97	5,430.57	0.00	0.00	0.00
16,200.00	90.00	179.02	10,929.00	-5,530.07	94.68	5,530.57	0.00	0.00	0.00
16,300.00	90.00	179.02	10,929.00	-5,630.06	96.40	5,630.56	0.00	0.00	0.00
16,400.00	90.00	179.02	10,929.00	-5,730.04	98.11	5,730.55	0.00	0.00	0.00
16,500.00	90.00	179.02	10,929.00	-5,830.03	99.83	5,830.55	0.00	0.00	0.00
16,600.00	90.00	179.02	10,929.00	-5,930.01	101.54	5,930.54	0.00	0.00	0.00
16,700.00	90.00	179.02	10,929.00	-6,030.00	103.26	6,030.54	0.00	0.00	0.00
16,800.00	90.00	179.02	10,929.00	-6,129.98	104.97	6,130.53	0.00	0.00	0.00
16,900.00	90.00	179.02	10,929.00	-6,229.97	106.69	6,230.53	0.00	0.00	0.00
17,000.00	90.00	179.02	10,929.00	-6,329.95	108.41	6,330.52	0.00	0.00	0.00
17,100.00	90.00	179.02	10,929.00	-6,429.94	110.12	6,430.51	0.00	0.00	0.00
17,200.00	90.00	179.02	10,929.00	-6,529.92	111.84	6,530.51	0.00	0.00	0.00
17,300.00	90.00	179.02	10,929.00	-6,629.91	113.55	6,630.50	0.00	0.00	0.00
17,400.00	90.00	179.02	10,929.00	-6,729.89	115.27	6,730.50	0.00	0.00	0.00
17,500.00	90.00	179.02	10,929.00	-6,829.88	116.98	6,830.49	0.00	0.00	0.00
17,600.00	90.00	179.02	10,929.00	-6,929.86	118.70	6,930.49	0.00	0.00	0.00
17,700.00	90.00	179.02	10,929.00	-7,029.85	120.41	7,030.48	0.00	0.00	0.00
17,800.00	90.00	179.02	10,929.00	-7,129.83	122.13	7,130.47	0.00	0.00	0.00
17,900.00	90.00	179.02	10,929.00	-7,229.82	123.85	7,230.47	0.00	0.00	0.00
18,000.00	90.00	179.02	10,929.00	-7,329.81	125.56	7,330.46	0.00	0.00	0.00
18,100.00	90.00	179.02	10,929.00	-7,429.79	127.28	7,430.46	0.00	0.00	0.00
18,200.00	90.00	179.02	10,929.00	-7,529.78	128.99	7,530.45	0.00	0.00	0.00
18,300.00	90.00	179.02	10,929.00	-7,629.76	130.71	7,630.45	0.00	0.00	0.00
18,400.00	90.00	179.02	10,929.00	-7,729.75	132.42	7,730.44	0.00	0.00	0.00
18,500.00	90.00	179.02	10,929.00	-7,829.73	134.14	7,830.43	0.00	0.00	0.00
18,600.00	90.00	179.02	10,929.00	-7,929.72	135.85	7,930.43	0.00	0.00	0.00
18,700.00	90.00	179.02	10,929.00	-8,029.70	137.57	8,030.42	0.00	0.00	0.00
18,800.00	90.00	179.02	10,929.00	-8,129.69	139.28	8,130.42	0.00	0.00	0.00
18,900.00	90.00	179.02	10,929.00	-8,229.67	141.00	8,230.41	0.00	0.00	0.00
19,000.00	90.00	179.02	10,929.00	-8,329.66	142.72	8,330.41	0.00	0.00	0.00
19,100.00	90.00	179.02	10,929.00	-8,429.64	144.43	8,430.40	0.00	0.00	0.00
19,200.00	90.00	179.02	10,929.00	-8,529.63	146.15	8,530.39	0.00	0.00	0.00
19,300.00	90.00	179.02	10,929.00	-8,629.61	147.86	8,630.39	0.00	0.00	0.00
19,400.00	90.00	179.02	10,929.00	-8,729.60	149.58	8,730.38	0.00	0.00	0.00
19,500.00	90.00	179.02	10,929.00	-8,829.58	151.29	8,830.38	0.00	0.00	0.00
19,600.00	90.00	179.02	10,929.00	-8,929.57	153.01	8,930.37	0.00	0.00	0.00
19,700.00	90.00	179.02	10,929.00	-9,029.56	154.72	9,030.37	0.00	0.00	0.00

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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	90.00	179.02	10,929.00	-9,129.54	156.44	9,130.36	0.00	0.00	0.00
19,900.00	90.00	179.02	10,929.00	-9,229.53	158.16	9,230.35	0.00	0.00	0.00
20,000.00	90.00	179.02	10,929.00	-9,329.51	159.87	9,330.35	0.00	0.00	0.00
20,100.00	90.00	179.02	10,929.00	-9,429.50	161.59	9,430.34	0.00	0.00	0.00
20,200.00	90.00	179.02	10,929.00	-9,529.48	163.30	9,530.34	0.00	0.00	0.00
20,280.29	90.00	179.02	10,929.00	-9,609.76	164.68	9,610.62	0.00	0.00	0.00
TD at 20280.29 - PBHL (GW 3H)									

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 (GW 3H) - plan hits target center - Point	0.00	0.00	0.00	0.00	0.00	374,777.26	799,757.63	32° 1' 39.364 N	103° 29' 58.024 W
PBHL (GW 3H) - plan hits target center - Point	0.00	0.01	10,929.00	-9,609.76	164.68	365,167.50	799,922.31	32° 0' 4.259 N	103° 29' 56.972 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,342.05	10,342.05	0.00	0.00	Start Build 10.00
11,239.81	10,915.00	-570.63	9.76	Start 3568.61 hold at 11239.81 MD
14,808.42	10,928.98	-4,138.69	70.81	Start DLS 2.00 TFO -0.72
14,819.64	10,929.00	-4,149.91	71.00	Start 5460.65 hold at 14819.64 MD
20,280.29	10,929.00	-9,609.76	164.68	TD at 20280.29