



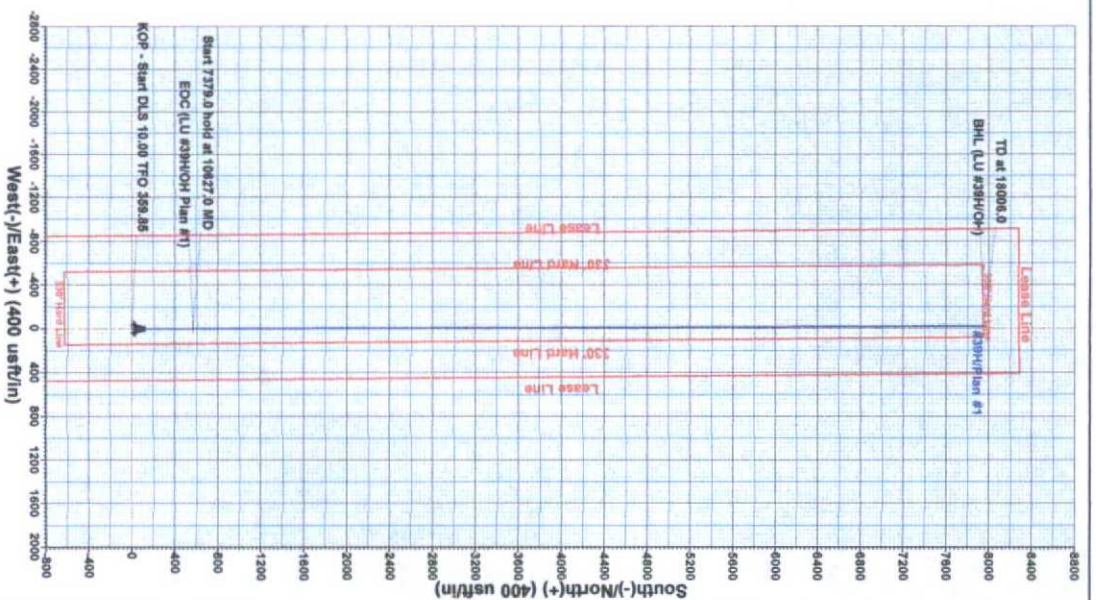
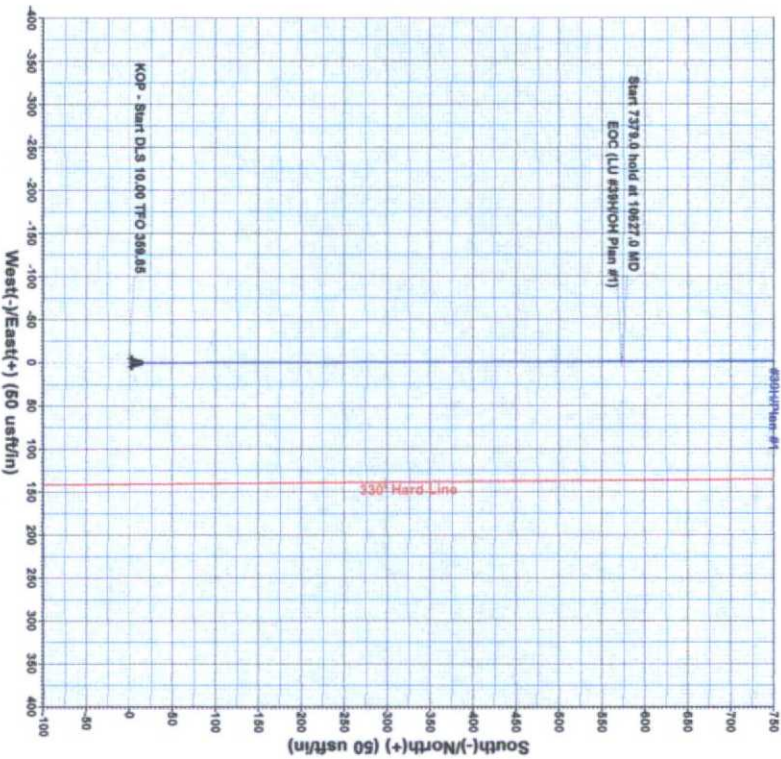
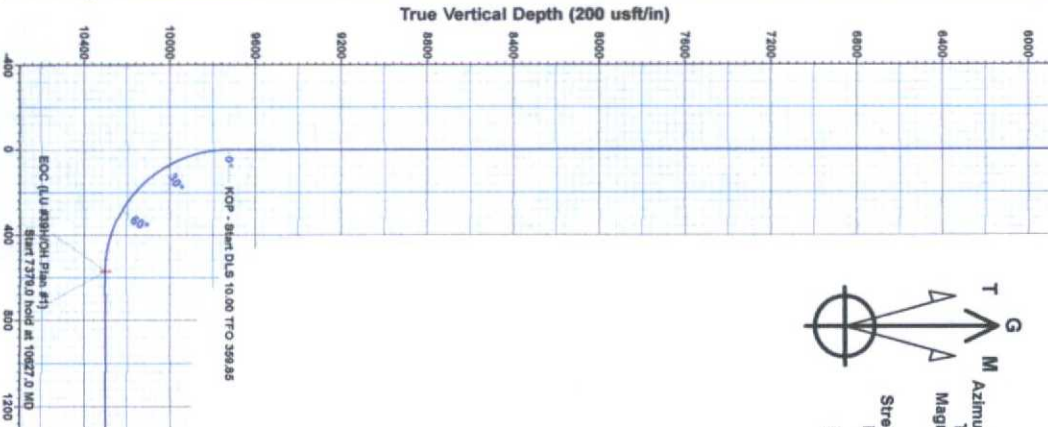
Legacy Reserves
Project: Lea County, NM
Site: Lea Unit
Well: #39H
Wellbore: OH
Plan: Plan #1 (#39H/OH)

Section Details									
Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSect Target
1	0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
2	9727.0	0.00	0.00	9727.0	0.0	0.0	0.00	0.00	0.0
3	10627.0	90.00	359.85	10300.0	573.0	-1.5	10.00	359.85	673.0
4	18006.0	90.00	359.85	10300.0	7951.9	-20.6	0.00	0.00	7951.9

WELL DETAILS: #39H

Ground Elevation: 3677.0
RKB Elevation: KB @ 3695.0ust (McVay 4)
Rig Name: McVay 4

Northing 667479.30 Easting 750678.90 Latitude 32° 33' 26.995 N Longitude 103° 31' 8.686 W



Vertical Section at 359.85° (200 usft/in)



Created By: Well Planner Date: 16:18, September 02 2015

Terra Directional Services
3705 South County Road 1210, Midland, TX 79706
Office: (432) 618-1210

PROJECT DETAILS: Lea County, NM
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level
Local North: Grid

DEC 2 1 2015



Legacy Reserves

Lea County, NM

Lea Unit

#39H

OH

Plan: Plan #1

Standard Planning Report

02 September, 2015



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well #39H
Company:	Legacy Reserves	TVD Reference:	KB @ 3695.0usft (McVay 4)
Project:	Lea County, NM	MD Reference:	KB @ 3695.0usft (McVay 4)
Site:	Lea Unit	North Reference:	Grid
Well:	#39H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1		

Project	Lea County, NM		
Map System:	US State Plane 1927 (Exact solution)	System Datum:	Mean Sea Level
Geo Datum:	NAD 1927 (NADCON CONUS)		
Map Zone:	New Mexico East 3001		

Site	Lea Unit		
Site Position:		Northing:	567,504.40 usft
From:	Map	Easting:	753,784.90 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 33' 26.922 N
		Longitude:	103° 30' 34.732 W
		Grid Convergence:	0.44 °

Well	#39H		
Well Position	+N/-S	-25.1 usft	Northing:
	+E/-W	-2,906.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	3,677.0 usft
		Latitude:	32° 33' 26.895 N
		Longitude:	103° 31' 8.686 W
		Ground Level:	3,677.0 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	9/2/2015	7.15
			Dip Angle
			60.40
			Field Strength
			48,325

Design	Plan #1		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			0.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			359.85

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
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
9,727.0	0.00	0.00	9,727.0	0.0	0.0	0.00	0.00	0.00	0.00	
10,627.0	90.00	359.85	10,300.0	573.0	-1.5	10.00	10.00	-0.02	359.85	
18,006.0	90.00	359.85	10,300.0	7,951.9	-20.6	0.00	0.00	0.00	0.00	BHL (LU #39H/OH)

Database: EDM 5000.1 Single User Db
Company: Legacy Reserves
Project: Lea County, NM
Site: Lea Unit
Well: #39H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #39H
TVD Reference: KB @ 3695.0usft (McVay 4)
MD Reference: KB @ 3695.0usft (McVay 4)
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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	0.00	0.00	2,100.0	0.0	0.0	0.0	0.00	0.00	0.00
2,200.0	0.00	0.00	2,200.0	0.0	0.0	0.0	0.00	0.00	0.00
2,300.0	0.00	0.00	2,300.0	0.0	0.0	0.0	0.00	0.00	0.00
2,400.0	0.00	0.00	2,400.0	0.0	0.0	0.0	0.00	0.00	0.00
2,500.0	0.00	0.00	2,500.0	0.0	0.0	0.0	0.00	0.00	0.00
2,600.0	0.00	0.00	2,600.0	0.0	0.0	0.0	0.00	0.00	0.00
2,700.0	0.00	0.00	2,700.0	0.0	0.0	0.0	0.00	0.00	0.00
2,800.0	0.00	0.00	2,800.0	0.0	0.0	0.0	0.00	0.00	0.00
2,900.0	0.00	0.00	2,900.0	0.0	0.0	0.0	0.00	0.00	0.00
3,000.0	0.00	0.00	3,000.0	0.0	0.0	0.0	0.00	0.00	0.00
3,100.0	0.00	0.00	3,100.0	0.0	0.0	0.0	0.00	0.00	0.00
3,200.0	0.00	0.00	3,200.0	0.0	0.0	0.0	0.00	0.00	0.00
3,300.0	0.00	0.00	3,300.0	0.0	0.0	0.0	0.00	0.00	0.00
3,400.0	0.00	0.00	3,400.0	0.0	0.0	0.0	0.00	0.00	0.00
3,500.0	0.00	0.00	3,500.0	0.0	0.0	0.0	0.00	0.00	0.00
3,600.0	0.00	0.00	3,600.0	0.0	0.0	0.0	0.00	0.00	0.00
3,700.0	0.00	0.00	3,700.0	0.0	0.0	0.0	0.00	0.00	0.00
3,800.0	0.00	0.00	3,800.0	0.0	0.0	0.0	0.00	0.00	0.00
3,900.0	0.00	0.00	3,900.0	0.0	0.0	0.0	0.00	0.00	0.00
4,000.0	0.00	0.00	4,000.0	0.0	0.0	0.0	0.00	0.00	0.00
4,100.0	0.00	0.00	4,100.0	0.0	0.0	0.0	0.00	0.00	0.00
4,200.0	0.00	0.00	4,200.0	0.0	0.0	0.0	0.00	0.00	0.00
4,300.0	0.00	0.00	4,300.0	0.0	0.0	0.0	0.00	0.00	0.00
4,400.0	0.00	0.00	4,400.0	0.0	0.0	0.0	0.00	0.00	0.00
4,500.0	0.00	0.00	4,500.0	0.0	0.0	0.0	0.00	0.00	0.00
4,600.0	0.00	0.00	4,600.0	0.0	0.0	0.0	0.00	0.00	0.00
4,700.0	0.00	0.00	4,700.0	0.0	0.0	0.0	0.00	0.00	0.00
4,800.0	0.00	0.00	4,800.0	0.0	0.0	0.0	0.00	0.00	0.00
4,900.0	0.00	0.00	4,900.0	0.0	0.0	0.0	0.00	0.00	0.00
5,000.0	0.00	0.00	5,000.0	0.0	0.0	0.0	0.00	0.00	0.00
5,100.0	0.00	0.00	5,100.0	0.0	0.0	0.0	0.00	0.00	0.00
5,200.0	0.00	0.00	5,200.0	0.0	0.0	0.0	0.00	0.00	0.00
5,300.0	0.00	0.00	5,300.0	0.0	0.0	0.0	0.00	0.00	0.00

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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)
5,400.0	0.00	0.00	5,400.0	0.0	0.0	0.0	0.00	0.00	0.00
5,500.0	0.00	0.00	5,500.0	0.0	0.0	0.0	0.00	0.00	0.00
5,600.0	0.00	0.00	5,600.0	0.0	0.0	0.0	0.00	0.00	0.00
5,700.0	0.00	0.00	5,700.0	0.0	0.0	0.0	0.00	0.00	0.00
5,800.0	0.00	0.00	5,800.0	0.0	0.0	0.0	0.00	0.00	0.00
5,900.0	0.00	0.00	5,900.0	0.0	0.0	0.0	0.00	0.00	0.00
6,000.0	0.00	0.00	6,000.0	0.0	0.0	0.0	0.00	0.00	0.00
6,100.0	0.00	0.00	6,100.0	0.0	0.0	0.0	0.00	0.00	0.00
6,200.0	0.00	0.00	6,200.0	0.0	0.0	0.0	0.00	0.00	0.00
6,300.0	0.00	0.00	6,300.0	0.0	0.0	0.0	0.00	0.00	0.00
6,400.0	0.00	0.00	6,400.0	0.0	0.0	0.0	0.00	0.00	0.00
6,500.0	0.00	0.00	6,500.0	0.0	0.0	0.0	0.00	0.00	0.00
6,600.0	0.00	0.00	6,600.0	0.0	0.0	0.0	0.00	0.00	0.00
6,700.0	0.00	0.00	6,700.0	0.0	0.0	0.0	0.00	0.00	0.00
6,800.0	0.00	0.00	6,800.0	0.0	0.0	0.0	0.00	0.00	0.00
6,900.0	0.00	0.00	6,900.0	0.0	0.0	0.0	0.00	0.00	0.00
7,000.0	0.00	0.00	7,000.0	0.0	0.0	0.0	0.00	0.00	0.00
7,100.0	0.00	0.00	7,100.0	0.0	0.0	0.0	0.00	0.00	0.00
7,200.0	0.00	0.00	7,200.0	0.0	0.0	0.0	0.00	0.00	0.00
7,300.0	0.00	0.00	7,300.0	0.0	0.0	0.0	0.00	0.00	0.00
7,400.0	0.00	0.00	7,400.0	0.0	0.0	0.0	0.00	0.00	0.00
7,500.0	0.00	0.00	7,500.0	0.0	0.0	0.0	0.00	0.00	0.00
7,600.0	0.00	0.00	7,600.0	0.0	0.0	0.0	0.00	0.00	0.00
7,700.0	0.00	0.00	7,700.0	0.0	0.0	0.0	0.00	0.00	0.00
7,800.0	0.00	0.00	7,800.0	0.0	0.0	0.0	0.00	0.00	0.00
7,900.0	0.00	0.00	7,900.0	0.0	0.0	0.0	0.00	0.00	0.00
8,000.0	0.00	0.00	8,000.0	0.0	0.0	0.0	0.00	0.00	0.00
8,100.0	0.00	0.00	8,100.0	0.0	0.0	0.0	0.00	0.00	0.00
8,200.0	0.00	0.00	8,200.0	0.0	0.0	0.0	0.00	0.00	0.00
8,300.0	0.00	0.00	8,300.0	0.0	0.0	0.0	0.00	0.00	0.00
8,400.0	0.00	0.00	8,400.0	0.0	0.0	0.0	0.00	0.00	0.00
8,500.0	0.00	0.00	8,500.0	0.0	0.0	0.0	0.00	0.00	0.00
8,600.0	0.00	0.00	8,600.0	0.0	0.0	0.0	0.00	0.00	0.00
8,700.0	0.00	0.00	8,700.0	0.0	0.0	0.0	0.00	0.00	0.00
8,800.0	0.00	0.00	8,800.0	0.0	0.0	0.0	0.00	0.00	0.00
8,900.0	0.00	0.00	8,900.0	0.0	0.0	0.0	0.00	0.00	0.00
9,000.0	0.00	0.00	9,000.0	0.0	0.0	0.0	0.00	0.00	0.00
9,100.0	0.00	0.00	9,100.0	0.0	0.0	0.0	0.00	0.00	0.00
9,200.0	0.00	0.00	9,200.0	0.0	0.0	0.0	0.00	0.00	0.00
9,300.0	0.00	0.00	9,300.0	0.0	0.0	0.0	0.00	0.00	0.00
9,400.0	0.00	0.00	9,400.0	0.0	0.0	0.0	0.00	0.00	0.00
9,500.0	0.00	0.00	9,500.0	0.0	0.0	0.0	0.00	0.00	0.00
9,600.0	0.00	0.00	9,600.0	0.0	0.0	0.0	0.00	0.00	0.00
9,700.0	0.00	0.00	9,700.0	0.0	0.0	0.0	0.00	0.00	0.00
9,727.0	0.00	0.00	9,727.0	0.0	0.0	0.0	0.00	0.00	0.00
KOP - Start DLS 10.00 TFO 359.85									
9,750.0	2.30	359.85	9,750.0	0.5	0.0	0.5	10.00	10.00	0.00
9,800.0	7.30	359.85	9,799.8	4.6	0.0	4.6	10.00	10.00	0.00
9,850.0	12.30	359.85	9,849.1	13.2	0.0	13.2	10.00	10.00	0.00
9,900.0	17.30	359.85	9,897.4	25.9	-0.1	25.9	10.00	10.00	0.00
9,950.0	22.30	359.85	9,944.4	42.9	-0.1	42.9	10.00	10.00	0.00
10,000.0	27.30	359.85	9,989.8	63.8	-0.2	63.8	10.00	10.00	0.00
10,050.0	32.30	359.85	10,033.2	88.7	-0.2	88.7	10.00	10.00	0.00

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Survey Calculation Method:

Well #39H
KB @ 3695.0usft (McVay 4)
KB @ 3695.0usft (McVay 4)
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)
10,100.0	37.30	359.85	10,074.2	117.2	-0.3	117.2	10.00	10.00	0.00
10,150.0	42.30	359.85	10,112.6	149.2	-0.4	149.2	10.00	10.00	0.00
10,200.0	47.30	359.85	10,148.1	184.4	-0.5	184.4	10.00	10.00	0.00
10,250.0	52.30	359.85	10,180.3	222.6	-0.6	222.6	10.00	10.00	0.00
10,300.0	57.30	359.85	10,209.2	263.4	-0.7	263.4	10.00	10.00	0.00
10,350.0	62.30	359.85	10,234.3	306.6	-0.8	306.6	10.00	10.00	0.00
10,400.0	67.30	359.85	10,255.6	351.8	-0.9	351.8	10.00	10.00	0.00
10,450.0	72.30	359.85	10,272.8	398.8	-1.0	398.8	10.00	10.00	0.00
10,500.0	77.30	359.85	10,285.9	447.0	-1.2	447.0	10.00	10.00	0.00
10,550.0	82.30	359.85	10,294.8	496.2	-1.3	496.2	10.00	10.00	0.00
10,600.0	87.30	359.85	10,299.3	546.0	-1.4	546.0	10.00	10.00	0.00
10,627.0	90.00	359.85	10,300.0	573.0	-1.5	573.0	10.00	10.00	0.00
EOC - Start 7379.0 hold at 10627.0 MD									
10,700.0	90.00	359.85	10,300.0	646.0	-1.7	646.0	0.00	0.00	0.00
10,800.0	90.00	359.85	10,300.0	746.0	-1.9	746.0	0.00	0.00	0.00
10,900.0	90.00	359.85	10,300.0	846.0	-2.2	846.0	0.00	0.00	0.00
11,000.0	90.00	359.85	10,300.0	946.0	-2.5	946.0	0.00	0.00	0.00
11,100.0	90.00	359.85	10,300.0	1,046.0	-2.7	1,046.0	0.00	0.00	0.00
11,200.0	90.00	359.85	10,300.0	1,146.0	-3.0	1,146.0	0.00	0.00	0.00
11,300.0	90.00	359.85	10,300.0	1,246.0	-3.2	1,246.0	0.00	0.00	0.00
11,400.0	90.00	359.85	10,300.0	1,346.0	-3.5	1,346.0	0.00	0.00	0.00
11,500.0	90.00	359.85	10,300.0	1,446.0	-3.7	1,446.0	0.00	0.00	0.00
11,600.0	90.00	359.85	10,300.0	1,546.0	-4.0	1,546.0	0.00	0.00	0.00
11,700.0	90.00	359.85	10,300.0	1,646.0	-4.3	1,646.0	0.00	0.00	0.00
11,800.0	90.00	359.85	10,300.0	1,746.0	-4.5	1,746.0	0.00	0.00	0.00
11,900.0	90.00	359.85	10,300.0	1,846.0	-4.8	1,846.0	0.00	0.00	0.00
12,000.0	90.00	359.85	10,300.0	1,946.0	-5.0	1,946.0	0.00	0.00	0.00
12,100.0	90.00	359.85	10,300.0	2,046.0	-5.3	2,046.0	0.00	0.00	0.00
12,200.0	90.00	359.85	10,300.0	2,146.0	-5.6	2,146.0	0.00	0.00	0.00
12,300.0	90.00	359.85	10,300.0	2,246.0	-5.8	2,246.0	0.00	0.00	0.00
12,400.0	90.00	359.85	10,300.0	2,345.9	-6.1	2,346.0	0.00	0.00	0.00
12,500.0	90.00	359.85	10,300.0	2,445.9	-6.3	2,446.0	0.00	0.00	0.00
12,600.0	90.00	359.85	10,300.0	2,545.9	-6.6	2,546.0	0.00	0.00	0.00
12,700.0	90.00	359.85	10,300.0	2,645.9	-6.9	2,646.0	0.00	0.00	0.00
12,800.0	90.00	359.85	10,300.0	2,745.9	-7.1	2,746.0	0.00	0.00	0.00
12,900.0	90.00	359.85	10,300.0	2,845.9	-7.4	2,846.0	0.00	0.00	0.00
13,000.0	90.00	359.85	10,300.0	2,945.9	-7.6	2,946.0	0.00	0.00	0.00
13,100.0	90.00	359.85	10,300.0	3,045.9	-7.9	3,046.0	0.00	0.00	0.00
13,200.0	90.00	359.85	10,300.0	3,145.9	-8.1	3,146.0	0.00	0.00	0.00
13,300.0	90.00	359.85	10,300.0	3,245.9	-8.4	3,246.0	0.00	0.00	0.00
13,400.0	90.00	359.85	10,300.0	3,345.9	-8.7	3,346.0	0.00	0.00	0.00
13,500.0	90.00	359.85	10,300.0	3,445.9	-8.9	3,446.0	0.00	0.00	0.00
13,600.0	90.00	359.85	10,300.0	3,545.9	-9.2	3,546.0	0.00	0.00	0.00
13,700.0	90.00	359.85	10,300.0	3,645.9	-9.4	3,646.0	0.00	0.00	0.00
13,800.0	90.00	359.85	10,300.0	3,745.9	-9.7	3,746.0	0.00	0.00	0.00
13,900.0	90.00	359.85	10,300.0	3,845.9	-10.0	3,846.0	0.00	0.00	0.00
14,000.0	90.00	359.85	10,300.0	3,945.9	-10.2	3,946.0	0.00	0.00	0.00
14,100.0	90.00	359.85	10,300.0	4,045.9	-10.5	4,046.0	0.00	0.00	0.00
14,200.0	90.00	359.85	10,300.0	4,145.9	-10.7	4,146.0	0.00	0.00	0.00
14,300.0	90.00	359.85	10,300.0	4,245.9	-11.0	4,246.0	0.00	0.00	0.00
14,400.0	90.00	359.85	10,300.0	4,345.9	-11.3	4,346.0	0.00	0.00	0.00
14,500.0	90.00	359.85	10,300.0	4,445.9	-11.5	4,446.0	0.00	0.00	0.00
14,600.0	90.00	359.85	10,300.0	4,545.9	-11.8	4,546.0	0.00	0.00	0.00
14,700.0	90.00	359.85	10,300.0	4,645.9	-12.0	4,646.0	0.00	0.00	0.00

Database: EDM 5000.1 Single User Db
Company: Legacy Reserves
Project: Lea County, NM
Site: Lea Unit
Well: #39H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #39H
TVD Reference: KB @ 3695.0usft (McVay 4)
MD Reference: KB @ 3695.0usft (McVay 4)
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)
14,800.0	90.00	359.85	10,300.0	4,745.9	-12.3	4,746.0	0.00	0.00	0.00
14,900.0	90.00	359.85	10,300.0	4,845.9	-12.6	4,846.0	0.00	0.00	0.00
15,000.0	90.00	359.85	10,300.0	4,945.9	-12.8	4,946.0	0.00	0.00	0.00
15,100.0	90.00	359.85	10,300.0	5,045.9	-13.1	5,046.0	0.00	0.00	0.00
15,200.0	90.00	359.85	10,300.0	5,145.9	-13.3	5,146.0	0.00	0.00	0.00
15,300.0	90.00	359.85	10,300.0	5,245.9	-13.6	5,246.0	0.00	0.00	0.00
15,400.0	90.00	359.85	10,300.0	5,345.9	-13.8	5,346.0	0.00	0.00	0.00
15,500.0	90.00	359.85	10,300.0	5,445.9	-14.1	5,446.0	0.00	0.00	0.00
15,600.0	90.00	359.85	10,300.0	5,545.9	-14.4	5,546.0	0.00	0.00	0.00
15,700.0	90.00	359.85	10,300.0	5,645.9	-14.6	5,646.0	0.00	0.00	0.00
15,800.0	90.00	359.85	10,300.0	5,745.9	-14.9	5,746.0	0.00	0.00	0.00
15,900.0	90.00	359.85	10,300.0	5,845.9	-15.1	5,846.0	0.00	0.00	0.00
16,000.0	90.00	359.85	10,300.0	5,945.9	-15.4	5,946.0	0.00	0.00	0.00
16,100.0	90.00	359.85	10,300.0	6,045.9	-15.7	6,046.0	0.00	0.00	0.00
16,200.0	90.00	359.85	10,300.0	6,145.9	-15.9	6,146.0	0.00	0.00	0.00
16,300.0	90.00	359.85	10,300.0	6,245.9	-16.2	6,246.0	0.00	0.00	0.00
16,400.0	90.00	359.85	10,300.0	6,345.9	-16.4	6,346.0	0.00	0.00	0.00
16,500.0	90.00	359.85	10,300.0	6,445.9	-16.7	6,446.0	0.00	0.00	0.00
16,600.0	90.00	359.85	10,300.0	6,545.9	-17.0	6,546.0	0.00	0.00	0.00
16,700.0	90.00	359.85	10,300.0	6,645.9	-17.2	6,646.0	0.00	0.00	0.00
16,800.0	90.00	359.85	10,300.0	6,745.9	-17.5	6,746.0	0.00	0.00	0.00
16,900.0	90.00	359.85	10,300.0	6,845.9	-17.7	6,846.0	0.00	0.00	0.00
17,000.0	90.00	359.85	10,300.0	6,945.9	-18.0	6,946.0	0.00	0.00	0.00
17,100.0	90.00	359.85	10,300.0	7,045.9	-18.3	7,046.0	0.00	0.00	0.00
17,200.0	90.00	359.85	10,300.0	7,145.9	-18.5	7,146.0	0.00	0.00	0.00
17,300.0	90.00	359.85	10,300.0	7,245.9	-18.8	7,246.0	0.00	0.00	0.00
17,400.0	90.00	359.85	10,300.0	7,345.9	-19.0	7,346.0	0.00	0.00	0.00
17,500.0	90.00	359.85	10,300.0	7,445.9	-19.3	7,446.0	0.00	0.00	0.00
17,600.0	90.00	359.85	10,300.0	7,545.9	-19.5	7,546.0	0.00	0.00	0.00
17,700.0	90.00	359.85	10,300.0	7,645.9	-19.8	7,646.0	0.00	0.00	0.00
17,800.0	90.00	359.85	10,300.0	7,745.9	-20.1	7,746.0	0.00	0.00	0.00
17,900.0	90.00	359.85	10,300.0	7,845.9	-20.3	7,846.0	0.00	0.00	0.00
18,006.0	90.00	359.85	10,300.0	7,951.9	-20.6	7,951.9	0.00	0.00	0.00
TD at 18006.0									

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
EOC (LU #39H/OH Plan - plan hits target center - Point	0.00	0.01	10,300.0	573.0	-1.5	568,052.26	750,877.41	32° 33' 32.565 N	103° 31' 8.652 W
BHL (LU #39H/OH) - plan hits target center - Point	0.00	0.00	10,300.0	7,951.9	-20.6	575,431.20	750,858.30	32° 34' 45.579 N	103° 31' 8.216 W

Database: EDM 5000.1 Single User Db
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Well: #39H
Wellbore: OH
Design: Plan #1

Local Co-ordinate Reference: Well #39H
TVD Reference: KB @ 3695.0usft (McVay 4)
MD Reference: KB @ 3695.0usft (McVay 4)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
9,727.0	9,727.0	0.0	0.0	KOP - Start DLS 10.00 TFO 359.85
10,627.0	10,300.0	573.0	-1.5	EOC - Start 7379.0 hold at 10627.0 MD
18,006.0	10,300.0	7,951.9	-20.6	TD at 18006.0

Legacy Reserves
#39H - Plan #1

Lea County, NM
Lea Unit
Your Ref:

Measured Depth (ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)
0		0	0	0	0	0	0
100		0	0	100	0	0	0
200		0	0	200	0	0	0
300		0	0	300	0	0	0
400		0	0	400	0	0	0
500		0	0	500	0	0	0
600		0	0	600	0	0	0
700		0	0	700	0	0	0
800		0	0	800	0	0	0
900		0	0	900	0	0	0
1000		0	0	1000	0	0	0
1100		0	0	1100	0	0	0
1200		0	0	1200	0	0	0
1300		0	0	1300	0	0	0
1400		0	0	1400	0	0	0
1500		0	0	1500	0	0	0
1600		0	0	1600	0	0	0
1700		0	0	1700	0	0	0
1800		0	0	1800	0	0	0
1900		0	0	1900	0	0	0
2000		0	0	2000	0	0	0
2100		0	0	2100	0	0	0
2200		0	0	2200	0	0	0
2300		0	0	2300	0	0	0
2400		0	0	2400	0	0	0
2500		0	0	2500	0	0	0
2600		0	0	2600	0	0	0
2700		0	0	2700	0	0	0
2800		0	0	2800	0	0	0
2900		0	0	2900	0	0	0
3000		0	0	3000	0	0	0
3100		0	0	3100	0	0	0

3200	0	0	3200	0	0	0	0
3300	0	0	3300	0	0	0	0
3400	0	0	3400	0	0	0	0
3500	0	0	3500	0	0	0	0
3600	0	0	3600	0	0	0	0
3700	0	0	3700	0	0	0	0
3800	0	0	3800	0	0	0	0
3900	0	0	3900	0	0	0	0
4000	0	0	4000	0	0	0	0
4100	0	0	4100	0	0	0	0
4200	0	0	4200	0	0	0	0
4300	0	0	4300	0	0	0	0
4400	0	0	4400	0	0	0	0
4500	0	0	4500	0	0	0	0
4600	0	0	4600	0	0	0	0
4700	0	0	4700	0	0	0	0
4800	0	0	4800	0	0	0	0
4900	0	0	4900	0	0	0	0
5000	0	0	5000	0	0	0	0
5100	0	0	5100	0	0	0	0
5200	0	0	5200	0	0	0	0
5300	0	0	5300	0	0	0	0
5400	0	0	5400	0	0	0	0
5500	0	0	5500	0	0	0	0
5600	0	0	5600	0	0	0	0
5700	0	0	5700	0	0	0	0
5800	0	0	5800	0	0	0	0
5900	0	0	5900	0	0	0	0
6000	0	0	6000	0	0	0	0
6100	0	0	6100	0	0	0	0
6200	0	0	6200	0	0	0	0
6300	0	0	6300	0	0	0	0
6400	0	0	6400	0	0	0	0
6500	0	0	6500	0	0	0	0
6600	0	0	6600	0	0	0	0
6700	0	0	6700	0	0	0	0
6800	0	0	6800	0	0	0	0
6900	0	0	6900	0	0	0	0
7000	0	0	7000	0	0	0	0
7100	0	0	7100	0	0	0	0
7200	0	0	7200	0	0	0	0
7300	0	0	7300	0	0	0	0
7400	0	0	7400	0	0	0	0
7500	0	0	7500	0	0	0	0
7600	0	0	7600	0	0	0	0
7700	0	0	7700	0	0	0	0
7800	0	0	7800	0	0	0	0

7900	0	0	7900	0	0	0	0
8000	0	0	8000	0	0	0	0
8100	0	0	8100	0	0	0	0
8200	0	0	8200	0	0	0	0
8300	0	0	8300	0	0	0	0
8400	0	0	8400	0	0	0	0
8500	0	0	8500	0	0	0	0
8600	0	0	8600	0	0	0	0
8700	0	0	8700	0	0	0	0
8800	0	0	8800	0	0	0	0
8900	0	0	8900	0	0	0	0
9000	0	0	9000	0	0	0	0
9100	0	0	9100	0	0	0	0
9200	0	0	9200	0	0	0	0
9300	0	0	9300	0	0	0	0
9400	0	0	9400	0	0	0	0
9500	0	0	9500	0	0	0	0
9600	0	0	9600	0	0	0	0
9700	0	0	9700	0	0	0	0
9727	0	0	9727	0	0	0	0
9750	2.3	359.852	9749.99	0.46	0	0.46	10
9800	7.3	359.852	9799.8	4.64	-0.01	4.64	10
9850	12.3	359.852	9849.06	13.15	-0.03	13.15	10
9900	17.3	359.852	9897.38	25.92	-0.07	25.92	10
9950	22.3	359.852	9944.41	42.85	-0.11	42.85	10
10000	27.3	359.852	9989.79	63.82	-0.17	63.82	10
10050	32.3	359.852	10033.16	88.66	-0.23	88.66	10
10100	37.3	359.852	10074.21	117.18	-0.3	117.19	10
10150	42.3	359.852	10112.61	149.18	-0.39	149.18	10
10200	47.3	359.852	10148.08	184.4	-0.48	184.4	10
10250	52.3	359.852	10180.34	222.58	-0.58	222.58	10
10300	57.3	359.852	10209.15	263.42	-0.68	263.42	10
10350	62.3	359.852	10234.29	306.62	-0.79	306.62	10
10400	67.3	359.852	10255.58	351.85	-0.91	351.85	10
10450	72.3	359.852	10272.83	398.76	-1.03	398.76	10
10500	77.3	359.852	10285.94	446.99	-1.16	447	10
10550	82.3	359.852	10294.79	496.19	-1.29	496.19	10
10600	87.3	359.852	10299.32	545.97	-1.41	545.97	10
10627	90	359.852	10299.96	572.95	-1.48	572.95	10
10700	90	359.852	10299.96	645.96	-1.67	645.96	0
10800	90	359.852	10299.96	745.96	-1.93	745.96	0
10900	90	359.852	10299.96	845.95	-2.19	845.96	0
11000	90	359.852	10299.96	945.95	-2.45	945.96	0
11100	90	359.852	10299.96	1045.95	-2.71	1045.96	0
11200	90	359.852	10299.96	1145.95	-2.97	1145.96	0
11300	90	359.852	10299.96	1245.95	-3.23	1245.96	0
11400	90	359.852	10299.96	1345.95	-3.49	1345.96	0

11500	90	359.852	10299.96	1445.95	-3.75	1445.96	0
11600	90	359.852	10299.96	1545.95	-4	1545.96	0
11700	90	359.852	10299.96	1645.95	-4.26	1645.96	0
11800	90	359.852	10299.96	1745.95	-4.52	1745.96	0
11900	90	359.852	10299.97	1845.95	-4.78	1845.96	0
12000	90	359.852	10299.97	1945.95	-5.04	1945.96	0
12100	90	359.852	10299.97	2045.95	-5.3	2045.96	0
12200	90	359.852	10299.97	2145.95	-5.56	2145.96	0
12300	90	359.852	10299.97	2245.95	-5.82	2245.96	0
12400	90	359.852	10299.97	2345.95	-6.08	2345.96	0
12500	90	359.852	10299.97	2445.95	-6.34	2445.96	0
12600	90	359.852	10299.97	2545.95	-6.6	2545.96	0
12700	90	359.852	10299.97	2645.95	-6.85	2645.96	0
12800	90	359.852	10299.97	2745.95	-7.11	2745.96	0
12900	90	359.852	10299.97	2845.95	-7.37	2845.96	0
13000	90	359.852	10299.97	2945.95	-7.63	2945.96	0
13100	90	359.852	10299.97	3045.95	-7.89	3045.96	0
13200	90	359.852	10299.97	3145.95	-8.15	3145.96	0
13300	90	359.852	10299.97	3245.95	-8.41	3245.96	0
13400	90	359.852	10299.97	3345.95	-8.67	3345.96	0
13500	90	359.852	10299.97	3445.95	-8.93	3445.96	0
13600	90	359.852	10299.97	3545.95	-9.19	3545.96	0
13700	90	359.852	10299.98	3645.95	-9.45	3645.96	0
13800	90	359.852	10299.98	3745.95	-9.7	3745.96	0
13900	90	359.852	10299.98	3845.94	-9.96	3845.96	0
14000	90	359.852	10299.98	3945.94	-10.22	3945.96	0
14100	90	359.852	10299.98	4045.94	-10.48	4045.96	0
14200	90	359.852	10299.98	4145.94	-10.74	4145.96	0
14300	90	359.852	10299.98	4245.94	-11	4245.96	0
14400	90	359.852	10299.98	4345.94	-11.26	4345.96	0
14500	90	359.852	10299.98	4445.94	-11.52	4445.96	0
14600	90	359.852	10299.98	4545.94	-11.78	4545.96	0
14700	90	359.852	10299.98	4645.94	-12.04	4645.96	0
14800	90	359.852	10299.98	4745.94	-12.29	4745.96	0
14900	90	359.852	10299.98	4845.94	-12.55	4845.96	0
15000	90	359.852	10299.98	4945.94	-12.81	4945.96	0
15100	90	359.852	10299.98	5045.94	-13.07	5045.96	0
15200	90	359.852	10299.98	5145.94	-13.33	5145.96	0
15300	90	359.852	10299.98	5245.94	-13.59	5245.96	0
15400	90	359.852	10299.99	5345.94	-13.85	5345.96	0
15500	90	359.852	10299.99	5445.94	-14.11	5445.96	0
15600	90	359.852	10299.99	5545.94	-14.37	5545.96	0
15700	90	359.852	10299.99	5645.94	-14.63	5645.96	0
15800	90	359.852	10299.99	5745.94	-14.89	5745.96	0
15900	90	359.852	10299.99	5845.94	-15.14	5845.96	0
16000	90	359.852	10299.99	5945.94	-15.4	5945.96	0
16100	90	359.852	10299.99	6045.94	-15.66	6045.96	0

16200	90	359.852	10299.99	6145.94	-15.92	6145.96	0
16300	90	359.852	10299.99	6245.94	-16.18	6245.96	0
16400	90	359.852	10299.99	6345.94	-16.44	6345.96	0
16500	90	359.852	10299.99	6445.94	-16.7	6445.96	0
16600	90	359.852	10299.99	6545.94	-16.96	6545.96	0
16700	90	359.852	10299.99	6645.94	-17.22	6645.96	0
16800	90	359.852	10299.99	6745.94	-17.48	6745.96	0
16900	90	359.852	10299.99	6845.93	-17.73	6845.96	0
17000	90	359.852	10299.99	6945.93	-17.99	6945.96	0
17100	90	359.852	10299.99	7045.93	-18.25	7045.96	0
17200	90	359.852	10300	7145.93	-18.51	7145.96	0
17300	90	359.852	10300	7245.93	-18.77	7245.96	0
17400	90	359.852	10300	7345.93	-19.03	7345.96	0
17500	90	359.852	10300	7445.93	-19.29	7445.96	0
17600	90	359.852	10300	7545.93	-19.55	7545.96	0
17700	90	359.852	10300	7645.93	-19.81	7645.96	0
17800	90	359.852	10300	7745.93	-20.07	7745.96	0
17900	90	359.852	10300	7845.93	-20.33	7845.96	0
18005.97	90	359.852	10300	7951.9	-20.6	7951.93	0

All data are in feet unless otherwise stated. Directions and coordinates are relative to Grid North.
Vertical depths are relative to KB. Northings and Eastings are relative to Well.

The Dogleg Severity is in Degrees per 100 feet.

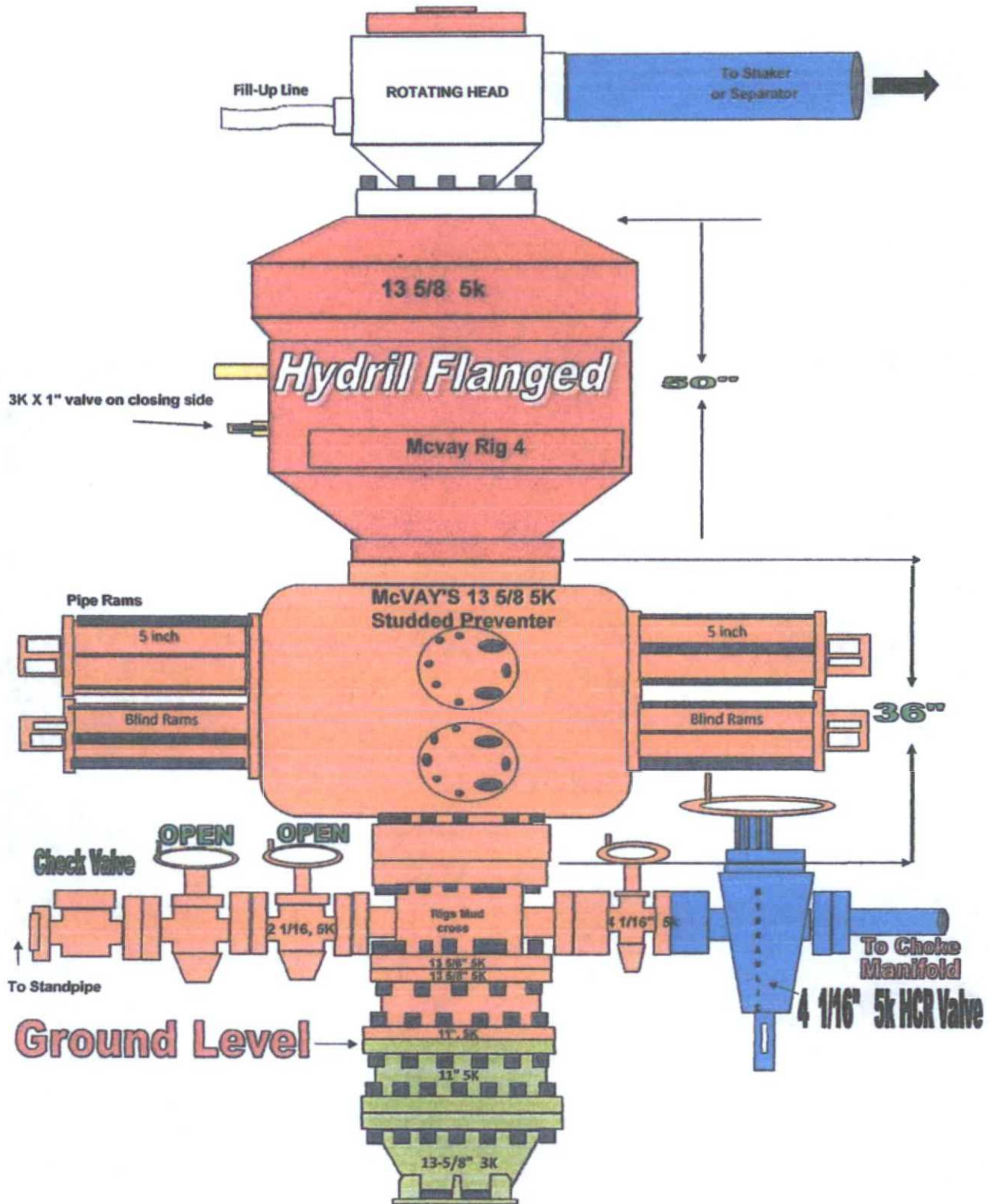
Vertical Section is from Slot and calculated along an Azimuth of 359.852° (Grid).

Coordinate System is NAD 1927 (NADCON CONUS) US State Plane 1927 (Exact solution), New Mexico East 3001.
Central meridian is -104.333°.

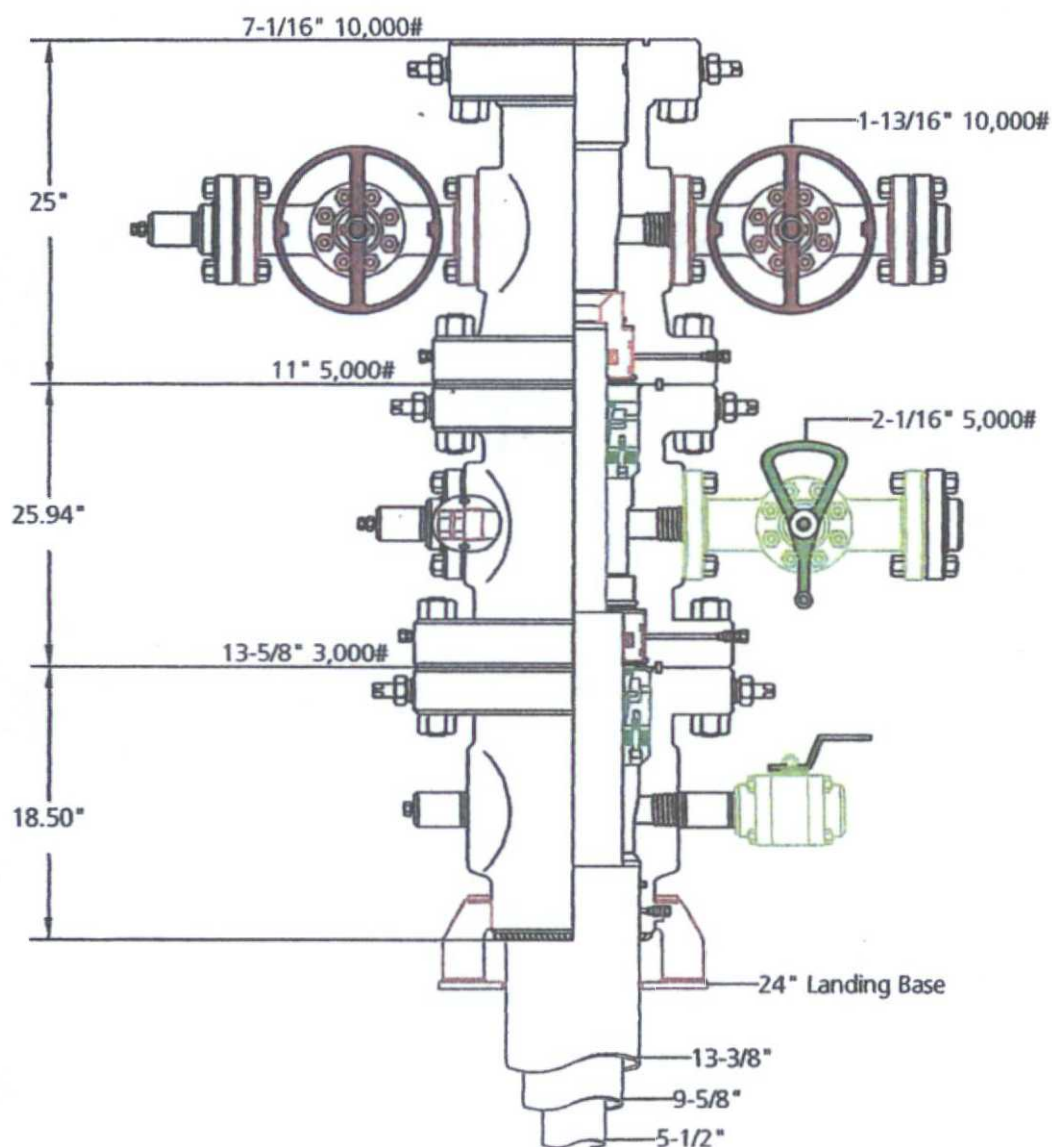
Grid Convergence at Surface is 0.438°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 18005.97ft.,
the Bottom Hole Displacement is 7951.93ft., in the Direction of 359.852° (Grid).

McVay Rig 4



Note: Dimensional information reflected on this drawing are estimated measurements only.

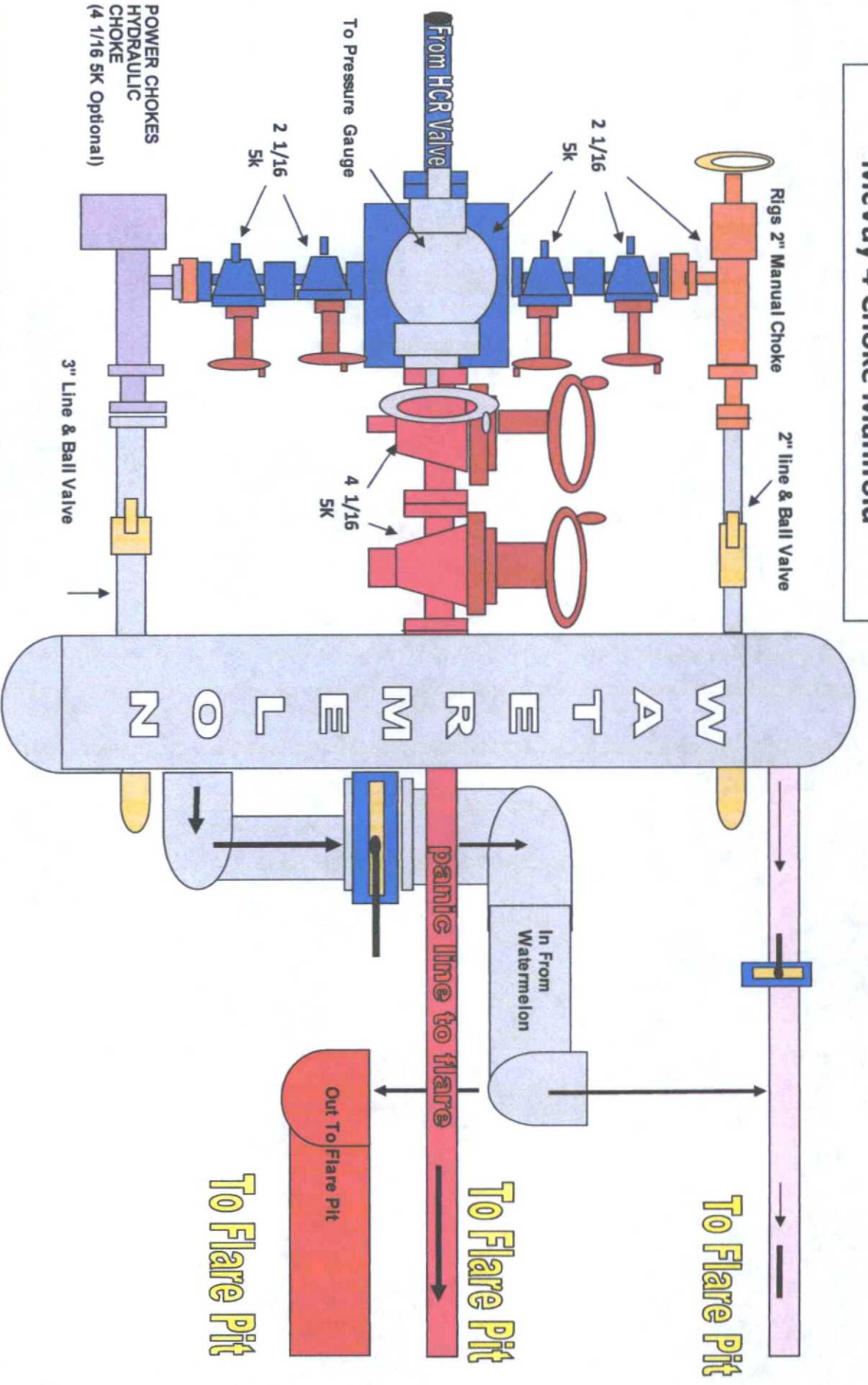


Legacy Reserves
Conventional 3-String



Header: Jeanette	Date: 7-15-15	Working Pressure:	# 1274616
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McVay 4 Choke Manifold



*We use the same choke manifolds for all aspects of our operations & all are rated to 10K;

* All connections downstream from BOP thru chokes Are Flanged, All connections downstream from chokes are Flanged .

Design Plan, Operating & Maintenance Plan & Closure Plan for the OCD Form C-144

DESIGN PLAN:

Fluid & cuttings coming from drilling operations will pass over the Shale Shaker with the cuttings going to the CRI haul off bin and the cleaned fluid returning to the working steel pits.

Equipment includes:

2-500 bbl steel tanks (fresh water for drilling)
2-700 bbl steel working pits (1400 bbls total)
2-20 cu yards steel haul off bins
2-pumps (CE FB1300)
2-shale shakers
1-mud cleaner (if needed)
1-centrifuge (if needed)

OPERATING AND MAINTENANCE PLAN:

Inspection to occur every tour for proper operation of system and individual components. If any problems are found they will be repaired and/or corrected immediately.

CLOSURE PLAN:

All haul bins containing cuttings will be removed from location and hauled to Controlled Recovery, Inc. (NM-01-0006) disposal site located near mile marker 66 on Highway 62/180.


Blain K. Lewis

Senior Operations Engineer

Plat for Closed Loop System

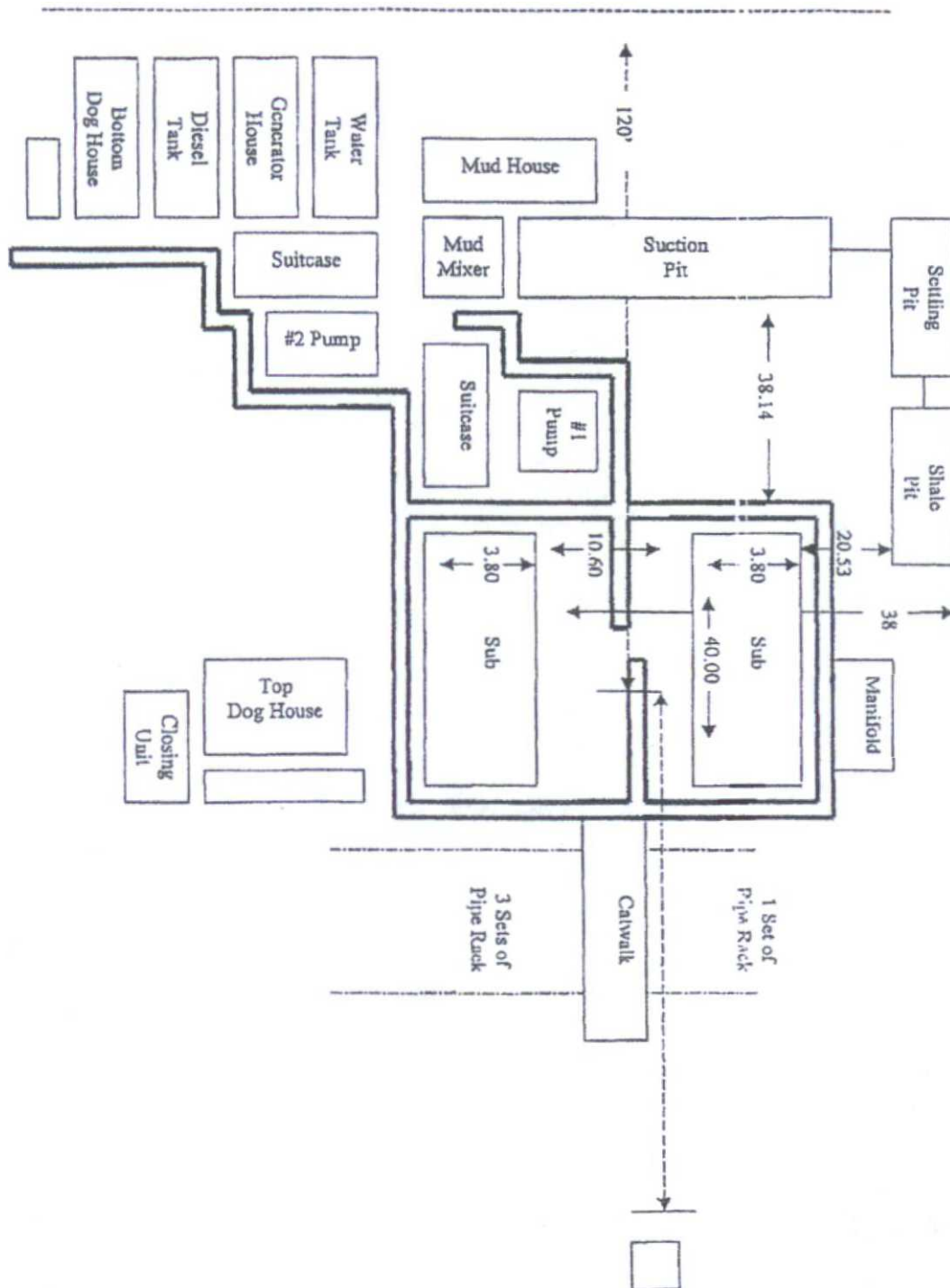


EXHIBIT D

**Rig Plat Only
LEA UNIT 35H & 39H
V-DOOR EAST**

