

AMEREDEV

HOLDS COO

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30-025-44472

Ameredev Operating, LLC

Lea County, NM (NAD83 NME)

(Magnolia) Sec22_T-26-S_R-36-E

Magnolia State Com 26-36-22 #101H

OWB

Plan: Plan #1

Standard Planning Report

31 January, 2018

INTREPID

Database: EDM 5000.1 Single User Db
 Company: Ameredev Operating, LLC
 Project: Lea County, NM (NAD83 NME)
 Site: (Magnolia) Sec22_T-26-S_R-36-E
 Well: Magnolia State Com 26-36-22 #101H
 Wellbore: OWB
 Design: Plan #1

Local Co-ordinate Reference: Well Magnolia State Com 26-36-22 #101H
 TVD Reference: KB @ 2938.0usft (H&P 616)
 MD Reference: KB @ 2938.0usft (H&P 616)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature

Project Lea County, NM (NAD83 NME)

Map System: US State Plane 1983
 Geo Datum: North American Datum 1983
 Map Zone: New Mexico Eastern Zone
 System Datum: Mean Sea Level

Site (Magnolia) Sec22_T-26-S_R-36-E

Site Position: Northing: 373,453.00 usft Latitude: 32° 1' 19.799 N
 From: Map Easting: 873,759.00 usft Longitude: 103° 15' 38.643 W
 Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 " Grid Convergence: 0.57 °

Well Magnolia State Com 26-36-22 #101H

Well Position +N/-S 0.0 usft Northing: 373,453.00 usft Latitude: 32° 1' 19.797 N
 +E/-W 20.0 usft Easting: 873,779.00 usft Longitude: 103° 15' 38.411 W
 Position Uncertainty 0.0 usft Wellhead Elevation: 0.0 usft Ground Level: 2,911.0 usft

Wellbore OWB

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	2018/01/31	6.73	59.92	47,790

Design Plan #1

Audit Notes:

Version: Phase: PLAN Tie On Depth: 0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	0.05

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	
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
2,217.7	2.18	157.62	2,217.6	-3.8	1.6	1.00	1.00	0.00	157.62	
6,894.6	2.18	157.62	6,891.2	-168.1	69.2	0.00	0.00	0.00	0.00	
7,003.5	0.00	0.00	7,000.0	-170.0	70.0	2.00	-2.00	0.00	180.00	
11,060.5	0.00	0.00	11,057.0	-170.0	70.0	0.00	0.00	0.00	0.00	
11,960.5	90.00	3.10	11,630.0	402.1	101.0	10.00	10.00	0.00	3.10	
12,145.0	90.00	359.41	11,630.0	586.6	105.0	2.00	0.00	-2.00	-90.00	
21,555.9	90.00	359.41	11,630.0	9,997.0	8.0	0.00	0.00	0.00	0.00	PBHL (Magnolia St)



Intrepid
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Magnolia State Com 26-36-22 #101H
Company:	Ameredev Operating, LLC	TVD Reference:	KB @ 2938.0usft (H&P 616)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	KB @ 2938.0usft (H&P 616)
Site:	(Magnolia) Sec22_T-26-S_R-36-E	North Reference:	Grid
Well:	Magnolia State Com 26-36-22 #101H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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)
0.0	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
NUDGE - Build 1.00									
2,100.0	1.00	157.62	2,100.0	-0.8	0.3	-0.8	1.00	1.00	0.00
2,200.0	2.00	157.62	2,200.0	-3.2	1.3	-3.2	1.00	1.00	0.00
2,217.7	2.18	157.62	2,217.6	-3.8	1.6	-3.8	1.00	1.00	0.00
HOLD - 4676.9 at 2217.7 MD									
2,300.0	2.18	157.62	2,299.9	-6.7	2.8	-6.7	0.00	0.00	0.00
2,400.0	2.18	157.62	2,399.8	-10.2	4.2	-10.2	0.00	0.00	0.00
2,500.0	2.18	157.62	2,499.7	-13.7	5.7	-13.7	0.00	0.00	0.00
2,600.0	2.18	157.62	2,599.7	-17.3	7.1	-17.2	0.00	0.00	0.00
2,700.0	2.18	157.62	2,699.6	-20.8	8.5	-20.8	0.00	0.00	0.00
2,800.0	2.18	157.62	2,799.5	-24.3	10.0	-24.3	0.00	0.00	0.00
2,900.0	2.18	157.62	2,899.5	-27.8	11.4	-27.8	0.00	0.00	0.00
3,000.0	2.18	157.62	2,999.4	-31.3	12.9	-31.3	0.00	0.00	0.00
3,100.0	2.18	157.62	3,099.3	-34.8	14.3	-34.8	0.00	0.00	0.00
3,200.0	2.18	157.62	3,199.2	-38.3	15.8	-38.3	0.00	0.00	0.00
3,300.0	2.18	157.62	3,299.2	-41.8	17.2	-41.8	0.00	0.00	0.00
3,400.0	2.18	157.62	3,399.1	-45.3	18.7	-45.3	0.00	0.00	0.00
3,500.0	2.18	157.62	3,499.0	-48.9	20.1	-48.8	0.00	0.00	0.00
3,600.0	2.18	157.62	3,599.0	-52.4	21.6	-52.4	0.00	0.00	0.00
3,700.0	2.18	157.62	3,698.9	-55.9	23.0	-55.9	0.00	0.00	0.00
3,800.0	2.18	157.62	3,798.8	-59.4	24.5	-59.4	0.00	0.00	0.00
3,900.0	2.18	157.62	3,898.7	-62.9	25.9	-62.9	0.00	0.00	0.00
4,000.0	2.18	157.62	3,998.7	-66.4	27.4	-66.4	0.00	0.00	0.00
4,100.0	2.18	157.62	4,098.6	-69.9	28.8	-69.9	0.00	0.00	0.00
4,200.0	2.18	157.62	4,198.5	-73.4	30.2	-73.4	0.00	0.00	0.00
4,300.0	2.18	157.62	4,298.4	-77.0	31.7	-76.9	0.00	0.00	0.00
4,400.0	2.18	157.62	4,398.4	-80.5	33.1	-80.4	0.00	0.00	0.00
4,500.0	2.18	157.62	4,498.3	-84.0	34.6	-84.0	0.00	0.00	0.00
4,600.0	2.18	157.62	4,598.2	-87.5	36.0	-87.5	0.00	0.00	0.00
4,700.0	2.18	157.62	4,698.2	-91.0	37.5	-91.0	0.00	0.00	0.00
4,800.0	2.18	157.62	4,798.1	-94.5	38.9	-94.5	0.00	0.00	0.00
4,900.0	2.18	157.62	4,898.0	-98.0	40.4	-98.0	0.00	0.00	0.00
5,000.0	2.18	157.62	4,997.9	-101.5	41.8	-101.5	0.00	0.00	0.00

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Project:	Lea County, NM (NAD83 NME)	MD Reference:	KB @ 2938.0usft (H&P 616)
Site:	(Magnolia) Sec22_T-26-S_R-36-E	North Reference:	Grid
Well:	Magnolia State Com 26-36-22 #101H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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)
5,100.0	2.18	157.62	5,097.9	-105.1	43.3	-105.0	0.00	0.00	0.00
5,200.0	2.18	157.62	5,197.8	-108.6	44.7	-108.5	0.00	0.00	0.00
5,300.0	2.18	157.62	5,297.7	-112.1	46.2	-112.0	0.00	0.00	0.00
5,400.0	2.18	157.62	5,397.7	-115.6	47.6	-115.6	0.00	0.00	0.00
5,500.0	2.18	157.62	5,497.6	-119.1	49.0	-119.1	0.00	0.00	0.00
5,600.0	2.18	157.62	5,597.5	-122.6	50.5	-122.6	0.00	0.00	0.00
5,700.0	2.18	157.62	5,697.4	-126.1	51.9	-126.1	0.00	0.00	0.00
5,800.0	2.18	157.62	5,797.4	-129.6	53.4	-129.6	0.00	0.00	0.00
5,900.0	2.18	157.62	5,897.3	-133.2	54.8	-133.1	0.00	0.00	0.00
6,000.0	2.18	157.62	5,997.2	-136.7	56.3	-136.6	0.00	0.00	0.00
6,100.0	2.18	157.62	6,097.1	-140.2	57.7	-140.1	0.00	0.00	0.00
6,200.0	2.18	157.62	6,197.1	-143.7	59.2	-143.6	0.00	0.00	0.00
6,300.0	2.18	157.62	6,297.0	-147.2	60.6	-147.2	0.00	0.00	0.00
6,400.0	2.18	157.62	6,396.9	-150.7	62.1	-150.7	0.00	0.00	0.00
6,500.0	2.18	157.62	6,496.9	-154.2	63.5	-154.2	0.00	0.00	0.00
6,600.0	2.18	157.62	6,596.8	-157.7	65.0	-157.7	0.00	0.00	0.00
6,700.0	2.18	157.62	6,696.7	-161.3	66.4	-161.2	0.00	0.00	0.00
6,800.0	2.18	157.62	6,796.6	-164.8	67.8	-164.7	0.00	0.00	0.00
6,894.6	2.18	157.62	6,891.2	-168.1	69.2	-168.0	0.00	0.00	0.00
DROP - -2.00									
6,900.0	2.07	157.62	6,896.6	-168.3	69.3	-168.2	2.00	-2.00	0.00
7,003.5	0.00	0.00	7,000.0	-170.0	70.0	-169.9	2.00	-2.00	0.00
HOLD - 4057.0 at 7003.5 MD									
7,100.0	0.00	0.00	7,096.5	-170.0	70.0	-169.9	0.00	0.00	0.00
7,200.0	0.00	0.00	7,196.5	-170.0	70.0	-169.9	0.00	0.00	0.00
7,300.0	0.00	0.00	7,296.5	-170.0	70.0	-169.9	0.00	0.00	0.00
7,400.0	0.00	0.00	7,396.5	-170.0	70.0	-169.9	0.00	0.00	0.00
7,500.0	0.00	0.00	7,496.5	-170.0	70.0	-169.9	0.00	0.00	0.00
7,600.0	0.00	0.00	7,596.5	-170.0	70.0	-169.9	0.00	0.00	0.00
7,700.0	0.00	0.00	7,696.5	-170.0	70.0	-169.9	0.00	0.00	0.00
7,800.0	0.00	0.00	7,796.5	-170.0	70.0	-169.9	0.00	0.00	0.00
7,900.0	0.00	0.00	7,896.5	-170.0	70.0	-169.9	0.00	0.00	0.00
8,000.0	0.00	0.00	7,996.5	-170.0	70.0	-169.9	0.00	0.00	0.00
8,100.0	0.00	0.00	8,096.5	-170.0	70.0	-169.9	0.00	0.00	0.00
8,200.0	0.00	0.00	8,196.5	-170.0	70.0	-169.9	0.00	0.00	0.00
8,300.0	0.00	0.00	8,296.5	-170.0	70.0	-169.9	0.00	0.00	0.00
8,400.0	0.00	0.00	8,396.5	-170.0	70.0	-169.9	0.00	0.00	0.00
8,500.0	0.00	0.00	8,496.5	-170.0	70.0	-169.9	0.00	0.00	0.00
8,600.0	0.00	0.00	8,596.5	-170.0	70.0	-169.9	0.00	0.00	0.00
8,700.0	0.00	0.00	8,696.5	-170.0	70.0	-169.9	0.00	0.00	0.00
8,800.0	0.00	0.00	8,796.5	-170.0	70.0	-169.9	0.00	0.00	0.00
8,900.0	0.00	0.00	8,896.5	-170.0	70.0	-169.9	0.00	0.00	0.00
9,000.0	0.00	0.00	8,996.5	-170.0	70.0	-169.9	0.00	0.00	0.00
9,100.0	0.00	0.00	9,096.5	-170.0	70.0	-169.9	0.00	0.00	0.00
9,200.0	0.00	0.00	9,196.5	-170.0	70.0	-169.9	0.00	0.00	0.00
9,300.0	0.00	0.00	9,296.5	-170.0	70.0	-169.9	0.00	0.00	0.00
9,400.0	0.00	0.00	9,396.5	-170.0	70.0	-169.9	0.00	0.00	0.00
9,500.0	0.00	0.00	9,496.5	-170.0	70.0	-169.9	0.00	0.00	0.00
9,600.0	0.00	0.00	9,596.5	-170.0	70.0	-169.9	0.00	0.00	0.00
9,700.0	0.00	0.00	9,696.5	-170.0	70.0	-169.9	0.00	0.00	0.00
9,800.0	0.00	0.00	9,796.5	-170.0	70.0	-169.9	0.00	0.00	0.00
9,900.0	0.00	0.00	9,896.5	-170.0	70.0	-169.9	0.00	0.00	0.00
10,000.0	0.00	0.00	9,996.5	-170.0	70.0	-169.9	0.00	0.00	0.00
10,100.0	0.00	0.00	10,096.5	-170.0	70.0	-169.9	0.00	0.00	0.00



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Wellbore:	OWB		
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)
10,200.0	0.00	0.00	10,196.5	-170.0	70.0	-169.9	0.00	0.00	0.00
10,300.0	0.00	0.00	10,296.5	-170.0	70.0	-169.9	0.00	0.00	0.00
10,400.0	0.00	0.00	10,396.5	-170.0	70.0	-169.9	0.00	0.00	0.00
10,500.0	0.00	0.00	10,496.5	-170.0	70.0	-169.9	0.00	0.00	0.00
10,600.0	0.00	0.00	10,596.5	-170.0	70.0	-169.9	0.00	0.00	0.00
10,700.0	0.00	0.00	10,696.5	-170.0	70.0	-169.9	0.00	0.00	0.00
10,800.0	0.00	0.00	10,796.5	-170.0	70.0	-169.9	0.00	0.00	0.00
10,900.0	0.00	0.00	10,896.5	-170.0	70.0	-169.9	0.00	0.00	0.00
11,000.0	0.00	0.00	10,996.5	-170.0	70.0	-169.9	0.00	0.00	0.00
11,060.5	0.00	0.00	11,057.0	-170.0	70.0	-169.9	0.00	0.00	0.00
KOP - Build 10.00									
11,100.0	3.95	3.10	11,096.5	-168.6	70.1	-168.6	10.00	10.00	0.00
11,150.0	8.95	3.10	11,146.2	-163.0	70.4	-163.0	10.00	10.00	0.00
11,200.0	13.95	3.10	11,195.2	-153.1	70.9	-153.1	10.00	10.00	0.00
11,250.0	18.95	3.10	11,243.1	-139.0	71.7	-138.9	10.00	10.00	0.00
11,300.0	23.95	3.10	11,289.6	-120.7	72.7	-120.7	10.00	10.00	0.00
11,350.0	28.95	3.10	11,334.4	-98.5	73.9	-98.4	10.00	10.00	0.00
11,400.0	33.95	3.10	11,377.0	-72.4	75.3	-72.4	10.00	10.00	0.00
11,450.0	38.95	3.10	11,417.2	-42.8	76.9	-42.7	10.00	10.00	0.00
11,500.0	43.95	3.10	11,454.7	-9.7	78.7	-9.7	10.00	10.00	0.00
11,550.0	48.95	3.10	11,489.1	26.4	80.6	26.5	10.00	10.00	0.00
11,600.0	53.95	3.10	11,520.3	65.5	82.8	65.5	10.00	10.00	0.00
11,650.0	58.95	3.10	11,547.9	107.1	85.0	107.1	10.00	10.00	0.00
11,700.0	63.95	3.10	11,571.8	150.9	87.4	151.0	10.00	10.00	0.00
11,750.0	68.95	3.10	11,591.7	196.7	89.9	196.7	10.00	10.00	0.00
11,800.0	73.95	3.10	11,607.6	244.0	92.4	244.1	10.00	10.00	0.00
11,850.0	78.95	3.10	11,619.3	292.5	95.0	292.6	10.00	10.00	0.00
11,900.0	83.95	3.10	11,626.8	341.9	97.7	341.9	10.00	10.00	0.00
11,950.0	88.95	3.10	11,629.9	391.7	100.4	391.8	10.00	10.00	0.00
11,960.5	90.00	3.10	11,630.0	402.1	101.0	402.2	10.00	10.00	0.00
EOC/TRN - DLS 2.00 TFO -90.00									
12,000.0	90.00	2.31	11,630.0	441.6	102.9	441.7	2.00	0.00	-2.00
12,100.0	90.00	0.31	11,630.0	541.6	105.1	541.7	2.00	0.00	-2.00
12,145.0	90.00	359.41	11,630.0	586.6	105.0	586.7	2.00	0.00	-2.00
Start 9410.9 hold at 12145.0 MD									
12,200.0	90.00	359.41	11,630.0	641.6	104.5	641.7	0.00	0.00	0.00
12,300.0	90.00	359.41	11,630.0	741.6	103.4	741.7	0.00	0.00	0.00
12,400.0	90.00	359.41	11,630.0	841.6	102.4	841.7	0.00	0.00	0.00
12,500.0	90.00	359.41	11,630.0	941.6	101.4	941.7	0.00	0.00	0.00
12,600.0	90.00	359.41	11,630.0	1,041.6	100.3	1,041.6	0.00	0.00	0.00
12,700.0	90.00	359.41	11,630.0	1,141.6	99.3	1,141.6	0.00	0.00	0.00
12,800.0	90.00	359.41	11,630.0	1,241.6	98.3	1,241.6	0.00	0.00	0.00
12,900.0	90.00	359.41	11,630.0	1,341.5	97.2	1,341.6	0.00	0.00	0.00
13,000.0	90.00	359.41	11,630.0	1,441.5	96.2	1,441.6	0.00	0.00	0.00
13,100.0	90.00	359.41	11,630.0	1,541.5	95.2	1,541.6	0.00	0.00	0.00
13,200.0	90.00	359.41	11,630.0	1,641.5	94.1	1,641.6	0.00	0.00	0.00
13,300.0	90.00	359.41	11,630.0	1,741.5	93.1	1,741.6	0.00	0.00	0.00
13,400.0	90.00	359.41	11,630.0	1,841.5	92.1	1,841.6	0.00	0.00	0.00
13,500.0	90.00	359.41	11,630.0	1,941.5	91.1	1,941.6	0.00	0.00	0.00
13,600.0	90.00	359.41	11,630.0	2,041.5	90.0	2,041.6	0.00	0.00	0.00
13,700.0	90.00	359.41	11,630.0	2,141.5	89.0	2,141.6	0.00	0.00	0.00
13,800.0	90.00	359.41	11,630.0	2,241.5	88.0	2,241.6	0.00	0.00	0.00
13,900.0	90.00	359.41	11,630.0	2,341.5	86.9	2,341.6	0.00	0.00	0.00



Intrepid
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Magnolia State Com 26-36-22 #101H
Company:	Ameredev Operating, LLC	TVD Reference:	KB @ 2938.0usft (H&P 616)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	KB @ 2938.0usft (H&P 616)
Site:	(Magnolia) Sec22_T-26-S_R-36-E	North Reference:	Grid
Well:	Magnolia State Com 26-36-22 #101H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
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)
14,000.0	90.00	359.41	11,630.0	2,441.5	85.9	2,441.6	0.00	0.00	0.00
14,100.0	90.00	359.41	11,630.0	2,541.5	84.9	2,541.6	0.00	0.00	0.00
14,200.0	90.00	359.41	11,630.0	2,641.5	83.8	2,641.5	0.00	0.00	0.00
14,300.0	90.00	359.41	11,630.0	2,741.5	82.8	2,741.5	0.00	0.00	0.00
14,400.0	90.00	359.41	11,630.0	2,841.5	81.8	2,841.5	0.00	0.00	0.00
14,500.0	90.00	359.41	11,630.0	2,941.5	80.7	2,941.5	0.00	0.00	0.00
14,600.0	90.00	359.41	11,630.0	3,041.5	79.7	3,041.5	0.00	0.00	0.00
14,700.0	90.00	359.41	11,630.0	3,141.5	78.7	3,141.5	0.00	0.00	0.00
14,800.0	90.00	359.41	11,630.0	3,241.4	77.7	3,241.5	0.00	0.00	0.00
14,900.0	90.00	359.41	11,630.0	3,341.4	76.6	3,341.5	0.00	0.00	0.00
15,000.0	90.00	359.41	11,630.0	3,441.4	75.6	3,441.5	0.00	0.00	0.00
15,100.0	90.00	359.41	11,630.0	3,541.4	74.6	3,541.5	0.00	0.00	0.00
15,200.0	90.00	359.41	11,630.0	3,641.4	73.5	3,641.5	0.00	0.00	0.00
15,300.0	90.00	359.41	11,630.0	3,741.4	72.5	3,741.5	0.00	0.00	0.00
15,400.0	90.00	359.41	11,630.0	3,841.4	71.5	3,841.5	0.00	0.00	0.00
15,500.0	90.00	359.41	11,630.0	3,941.4	70.4	3,941.5	0.00	0.00	0.00
15,600.0	90.00	359.41	11,630.0	4,041.4	69.4	4,041.5	0.00	0.00	0.00
15,700.0	90.00	359.41	11,630.0	4,141.4	68.4	4,141.5	0.00	0.00	0.00
15,800.0	90.00	359.41	11,630.0	4,241.4	67.3	4,241.4	0.00	0.00	0.00
15,900.0	90.00	359.41	11,630.0	4,341.4	66.3	4,341.4	0.00	0.00	0.00
16,000.0	90.00	359.41	11,630.0	4,441.4	65.3	4,441.4	0.00	0.00	0.00
16,100.0	90.00	359.41	11,630.0	4,541.4	64.2	4,541.4	0.00	0.00	0.00
16,200.0	90.00	359.41	11,630.0	4,641.4	63.2	4,641.4	0.00	0.00	0.00
16,300.0	90.00	359.41	11,630.0	4,741.4	62.2	4,741.4	0.00	0.00	0.00
16,400.0	90.00	359.41	11,630.0	4,841.4	61.2	4,841.4	0.00	0.00	0.00
16,500.0	90.00	359.41	11,630.0	4,941.4	60.1	4,941.4	0.00	0.00	0.00
16,600.0	90.00	359.41	11,630.0	5,041.4	59.1	5,041.4	0.00	0.00	0.00
16,700.0	90.00	359.41	11,630.0	5,141.3	58.1	5,141.4	0.00	0.00	0.00
16,800.0	90.00	359.41	11,630.0	5,241.3	57.0	5,241.4	0.00	0.00	0.00
16,900.0	90.00	359.41	11,630.0	5,341.3	56.0	5,341.4	0.00	0.00	0.00
17,000.0	90.00	359.41	11,630.0	5,441.3	55.0	5,441.4	0.00	0.00	0.00
17,100.0	90.00	359.41	11,630.0	5,541.3	53.9	5,541.4	0.00	0.00	0.00
17,200.0	90.00	359.41	11,630.0	5,641.3	52.9	5,641.4	0.00	0.00	0.00
17,300.0	90.00	359.41	11,630.0	5,741.3	51.9	5,741.4	0.00	0.00	0.00
17,400.0	90.00	359.41	11,630.0	5,841.3	50.8	5,841.3	0.00	0.00	0.00
17,500.0	90.00	359.41	11,630.0	5,941.3	49.8	5,941.3	0.00	0.00	0.00
17,600.0	90.00	359.41	11,630.0	6,041.3	48.8	6,041.3	0.00	0.00	0.00
17,700.0	90.00	359.41	11,630.0	6,141.3	47.8	6,141.3	0.00	0.00	0.00
17,800.0	90.00	359.41	11,630.0	6,241.3	46.7	6,241.3	0.00	0.00	0.00
17,900.0	90.00	359.41	11,630.0	6,341.3	45.7	6,341.3	0.00	0.00	0.00
18,000.0	90.00	359.41	11,630.0	6,441.3	44.7	6,441.3	0.00	0.00	0.00
18,100.0	90.00	359.41	11,630.0	6,541.3	43.6	6,541.3	0.00	0.00	0.00
18,200.0	90.00	359.41	11,630.0	6,641.3	42.6	6,641.3	0.00	0.00	0.00
18,300.0	90.00	359.41	11,630.0	6,741.3	41.6	6,741.3	0.00	0.00	0.00
18,400.0	90.00	359.41	11,630.0	6,841.3	40.5	6,841.3	0.00	0.00	0.00
18,500.0	90.00	359.41	11,630.0	6,941.3	39.5	6,941.3	0.00	0.00	0.00
18,600.0	90.00	359.41	11,630.0	7,041.2	38.5	7,041.3	0.00	0.00	0.00
18,700.0	90.00	359.41	11,630.0	7,141.2	37.4	7,141.3	0.00	0.00	0.00
18,800.0	90.00	359.41	11,630.0	7,241.2	36.4	7,241.3	0.00	0.00	0.00
18,900.0	90.00	359.41	11,630.0	7,341.2	35.4	7,341.3	0.00	0.00	0.00
19,000.0	90.00	359.41	11,630.0	7,441.2	34.4	7,441.3	0.00	0.00	0.00
19,100.0	90.00	359.41	11,630.0	7,541.2	33.3	7,541.2	0.00	0.00	0.00
19,200.0	90.00	359.41	11,630.0	7,641.2	32.3	7,641.2	0.00	0.00	0.00
19,300.0	90.00	359.41	11,630.0	7,741.2	31.3	7,741.2	0.00	0.00	0.00

Database: EDM 5000.1 Single User Db
 Company: Ameredev Operating, LLC
 Project: Lea County, NM (NAD83 NME)
 Site: (Magnolia) Sec22_T-26-S_R-36-E
 Well: Magnolia State Com 26-36-22 #101H
 Wellbore: OWB
 Design: Plan #1

Local Co-ordinate Reference:

TVD Reference:

MD Reference:

North Reference:

Survey Calculation Method:

Well Magnolia State Com 26-36-22 #101H

KB @ 2938.0usft (H&P 616)

KB @ 2938.0usft (H&P 616)

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)
19,400.0	90.00	359.41	11,630.0	7,841.2	30.2	7,841.2	0.00	0.00	0.00
19,500.0	90.00	359.41	11,630.0	7,941.2	29.2	7,941.2	0.00	0.00	0.00
19,600.0	90.00	359.41	11,630.0	8,041.2	28.2	8,041.2	0.00	0.00	0.00
19,700.0	90.00	359.41	11,630.0	8,141.2	27.1	8,141.2	0.00	0.00	0.00
19,800.0	90.00	359.41	11,630.0	8,241.2	26.1	8,241.2	0.00	0.00	0.00
19,900.0	90.00	359.41	11,630.0	8,341.2	25.1	8,341.2	0.00	0.00	0.00
20,000.0	90.00	359.41	11,630.0	8,441.2	24.0	8,441.2	0.00	0.00	0.00
20,100.0	90.00	359.41	11,630.0	8,541.2	23.0	8,541.2	0.00	0.00	0.00
20,200.0	90.00	359.41	11,630.0	8,641.2	22.0	8,641.2	0.00	0.00	0.00
20,300.0	90.00	359.41	11,630.0	8,741.2	20.9	8,741.2	0.00	0.00	0.00
20,400.0	90.00	359.41	11,630.0	8,841.2	19.9	8,841.2	0.00	0.00	0.00
20,500.0	90.00	359.41	11,630.0	8,941.1	18.9	8,941.2	0.00	0.00	0.00
20,600.0	90.00	359.41	11,630.0	9,041.1	17.9	9,041.2	0.00	0.00	0.00
20,700.0	90.00	359.41	11,630.0	9,141.1	16.8	9,141.1	0.00	0.00	0.00
20,800.0	90.00	359.41	11,630.0	9,241.1	15.8	9,241.1	0.00	0.00	0.00
20,900.0	90.00	359.41	11,630.0	9,341.1	14.8	9,341.1	0.00	0.00	0.00
21,000.0	90.00	359.41	11,630.0	9,441.1	13.7	9,441.1	0.00	0.00	0.00
21,100.0	90.00	359.41	11,630.0	9,541.1	12.7	9,541.1	0.00	0.00	0.00
21,200.0	90.00	359.41	11,630.0	9,641.1	11.7	9,641.1	0.00	0.00	0.00
21,300.0	90.00	359.41	11,630.0	9,741.1	10.6	9,741.1	0.00	0.00	0.00
21,400.0	90.00	359.41	11,630.0	9,841.1	9.6	9,841.1	0.00	0.00	0.00
21,500.0	90.00	359.41	11,630.0	9,941.1	8.6	9,941.1	0.00	0.00	0.00
21,555.9	90.00	359.41	11,630.0	9,997.0	8.0	9,997.0	0.00	0.00	0.00
TD at 21555.9									

Design Targets

Target Name

- hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- Shape									
FTP (Magnolia State (	0.00	0.00	11,630.0	101.0	109.0	373,554.00	873,888.00	32° 1' 20.786 N	103° 15' 37.133 W
- plan misses target center by 77.8usft at 11685.1usft MD (11565.0 TVD, 137.6 N, 86.7 E)									
- Point									
PBHL (Magnolia State	0.00	359.41	11,630.0	9,997.0	8.0	383,450.00	873,787.00	32° 2' 58.713 N	103° 15' 37.164 W
- plan hits target center									
- Rectangle (sides W60.0 H9,896.5 D25.0)									

Casing Points

Measured Depth (usft)	Vertical Depth (usft)	Name	Casing Diameter (")	Hole Diameter (")
1,050.0	1,050.0	16"	16	24
5,202.2	5,200.0	10.75"	10-3/4	14-3/4
11,205.0	11,200.0	7-5/8"	7-5/8	9-7/8
21,556.7		5 1/2"	5-1/2	6

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Magnolia State Com 26-36-22 #101H
Company:	Ameredev Operating, LLC	TVD Reference:	KB @ 2938.0usft (H&P 616)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	KB @ 2938.0usft (H&P 616)
Site:	(Magnolia) Sec22_T-26-S_R-36-E	North Reference:	Grid
Well:	Magnolia State Com 26-36-22 #101H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Plan #1		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,050.0	1,050.0	Dewey Lake			
2,194.0	2,194.0	Rustler			
2,513.3	2,513.0	Salado			
3,224.8	3,224.0	Tansill			
5,222.2	5,220.0	Bell Canyon			
6,810.4	6,807.0	Brushy Canyon			
7,821.5	7,818.0	Bone Spring (Lime)			
9,378.5	9,375.0	1st Bone Spring			
9,897.5	9,894.0	2nd Bone Spring			
10,635.5	10,632.0	3rd Bone Spring Lime			
11,265.8	11,258.0	3rd Bone Spring			
11,479.9	11,440.0	Top of Wolfcamp			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,000.0	2,000.0	0.0	0.0	NUDGE - Build 1.00
2,217.7	2,217.6	-3.8	1.6	HOLD - 4676.9 at 2217.7 MD
6,894.6	6,891.2	-168.1	69.2	DROP - -2.00
7,003.5	7,000.0	-170.0	70.0	HOLD - 4057.0 at 7003.5 MD
11,060.5	11,057.0	-170.0	70.0	KOP - Build 10.00
11,960.5	11,630.0	402.1	101.0	EOC/TRN - DLS 2.00 TFO -90.00
12,145.0	11,630.0	586.6	105.0	Start 9410.9 hold at 12145.0 MD
21,555.9	11,630.0	9,997.0	8.0	TD at 21555.9