

30-025-48471

AMEREDEV

Ameredev Operating, LLC

Lea County, NM (NAD83 NME)
(Redbud State) Sec32_T-25-S_R-26-E
Red Bud State Com 25-36-32 #115H

OWB

Plan: Pilot Hole

HOBBS OCD
FEB 13 2018
RECEIVED

Standard Planning Report

13 February, 2018

INTREPID

Database: EDM 5000.1 Single User Db
Company: Ameredev Operating, LLC
Project: Lea County, NM (NAD83 NME)
Site: (Redbud State) Sec32_T-25-S_R-26-E
Well: Red Bud State Com 25-36-32 #115H
Wellbore: OWB
Design: Pilot Hole

Local Co-ordinate Reference: Well Red Bud State Com 25-36-32 #115H
TVD Reference: KB @ 3030.0usft (H&P 616)
MD Reference: KB @ 3030.0usft (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 (Redbud State) Sec32_T-25-S_R-26-E

Site Position: Northing: 394,463.00 usft Latitude: 32° 4' 48.465 N
From: Map Easting: 865,740.00 usft Longitude: 103° 17' 9.409 W
Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 " Grid Convergence: 0.56 °

Well Red Bud State Com 25-36-32 #115H

Well Position +N/-S 0.0 usft Northing: 394,463.00 usft Latitude: 32° 4' 48.467 N
 +E/-W -20.0 usft Easting: 865,720.00 usft Longitude: 103° 17' 9.642 W
Position Uncertainty 0.0 usft Wellhead Elevation: 0.0 usft Ground Level: 3,003.0 usft

Wellbore OWB

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	02/06/18	6.74	59.97	47,820

Design Pilot Hole

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	359.29

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	
2,213.2	2.13	191.29	2,213.2	-3.9	-0.8	1.00	1.00	0.00	191.29	
5,896.0	2.13	191.29	5,893.4	-138.3	-27.6	0.00	0.00	0.00	0.00	
6,002.6	0.00	0.00	6,000.0	-140.2	-28.0	2.00	-2.00	0.00	180.00	
13,502.6	0.00	0.00	13,500.0	-140.2	-28.0	0.00	0.00	0.00	0.00	

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 MD Reference: KB @ 3030.0usft (H&P 616)
 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
NUDGE - Build 1.00									
2,100.0	1.00	191.29	2,100.0	-0.9	-0.2	-0.9	1.00	1.00	0.00
2,200.0	2.00	191.29	2,200.0	-3.4	-0.7	-3.4	1.00	1.00	0.00
2,213.2	2.13	191.29	2,213.2	-3.9	-0.8	-3.9	1.00	1.00	0.00
HOLD - 3682.8 at 2213.2 MD									
2,300.0	2.13	191.29	2,299.9	-7.1	-1.4	-7.0	0.00	0.00	0.00
2,400.0	2.13	191.29	2,399.8	-10.7	-2.1	-10.7	0.00	0.00	0.00
2,500.0	2.13	191.29	2,499.8	-14.4	-2.9	-14.3	0.00	0.00	0.00
2,600.0	2.13	191.29	2,599.7	-18.0	-3.6	-18.0	0.00	0.00	0.00
2,700.0	2.13	191.29	2,699.6	-21.7	-4.3	-21.6	0.00	0.00	0.00
2,800.0	2.13	191.29	2,799.5	-25.3	-5.1	-25.2	0.00	0.00	0.00
2,900.0	2.13	191.29	2,899.5	-28.9	-5.8	-28.9	0.00	0.00	0.00
3,000.0	2.13	191.29	2,999.4	-32.6	-6.5	-32.5	0.00	0.00	0.00
3,100.0	2.13	191.29	3,099.3	-36.2	-7.2	-36.2	0.00	0.00	0.00
3,200.0	2.13	191.29	3,199.3	-39.9	-8.0	-39.8	0.00	0.00	0.00
3,300.0	2.13	191.29	3,299.2	-43.5	-8.7	-43.4	0.00	0.00	0.00
3,400.0	2.13	191.29	3,399.1	-47.2	-9.4	-47.1	0.00	0.00	0.00
3,500.0	2.13	191.29	3,499.1	-50.8	-10.2	-50.7	0.00	0.00	0.00
3,600.0	2.13	191.29	3,599.0	-54.5	-10.9	-54.3	0.00	0.00	0.00
3,700.0	2.13	191.29	3,698.9	-58.1	-11.6	-58.0	0.00	0.00	0.00
3,800.0	2.13	191.29	3,798.9	-61.8	-12.3	-61.6	0.00	0.00	0.00
3,900.0	2.13	191.29	3,898.8	-65.4	-13.1	-65.3	0.00	0.00	0.00
4,000.0	2.13	191.29	3,998.7	-69.1	-13.8	-68.9	0.00	0.00	0.00
4,100.0	2.13	191.29	4,098.6	-72.7	-14.5	-72.5	0.00	0.00	0.00
4,200.0	2.13	191.29	4,198.6	-76.4	-15.3	-76.2	0.00	0.00	0.00
4,300.0	2.13	191.29	4,298.5	-80.0	-16.0	-79.8	0.00	0.00	0.00
4,400.0	2.13	191.29	4,398.4	-83.7	-16.7	-83.5	0.00	0.00	0.00
4,500.0	2.13	191.29	4,498.4	-87.3	-17.4	-87.1	0.00	0.00	0.00
4,600.0	2.13	191.29	4,598.3	-91.0	-18.2	-90.7	0.00	0.00	0.00
4,700.0	2.13	191.29	4,698.2	-94.6	-18.9	-94.4	0.00	0.00	0.00
4,800.0	2.13	191.29	4,798.2	-98.3	-19.6	-98.0	0.00	0.00	0.00
4,900.0	2.13	191.29	4,898.1	-101.9	-20.4	-101.7	0.00	0.00	0.00
5,000.0	2.13	191.29	4,998.0	-105.6	-21.1	-105.3	0.00	0.00	0.00

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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)
5,100.0	2.13	191.29	5,098.0	-109.2	-21.8	-108.9	0.00	0.00	0.00
5,200.0	2.13	191.29	5,197.9	-112.9	-22.5	-112.6	0.00	0.00	0.00
5,300.0	2.13	191.29	5,297.8	-116.5	-23.3	-116.2	0.00	0.00	0.00
5,400.0	2.13	191.29	5,397.7	-120.2	-24.0	-119.8	0.00	0.00	0.00
5,500.0	2.13	191.29	5,497.7	-123.8	-24.7	-123.5	0.00	0.00	0.00
5,600.0	2.13	191.29	5,597.6	-127.5	-25.5	-127.1	0.00	0.00	0.00
5,700.0	2.13	191.29	5,697.5	-131.1	-26.2	-130.8	0.00	0.00	0.00
5,800.0	2.13	191.29	5,797.5	-134.8	-26.9	-134.4	0.00	0.00	0.00
5,896.0	2.13	191.29	5,893.4	-138.3	-27.6	-137.9	0.00	0.00	0.00
DROP - -2.00									
5,900.0	2.05	191.29	5,897.4	-138.4	-27.6	-138.0	1.99	-1.99	0.00
6,002.6	0.00	0.00	6,000.0	-140.2	-28.0	-139.8	2.00	-2.00	0.00
HOLD - 7500.0 at 6002.6 MD									
6,100.0	0.00	0.00	6,097.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
6,200.0	0.00	0.00	6,197.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
6,300.0	0.00	0.00	6,297.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
6,400.0	0.00	0.00	6,397.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
6,500.0	0.00	0.00	6,497.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
6,600.0	0.00	0.00	6,597.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
6,700.0	0.00	0.00	6,697.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
6,800.0	0.00	0.00	6,797.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
6,900.0	0.00	0.00	6,897.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
7,000.0	0.00	0.00	6,997.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
7,100.0	0.00	0.00	7,097.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
7,200.0	0.00	0.00	7,197.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
7,300.0	0.00	0.00	7,297.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
7,400.0	0.00	0.00	7,397.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
7,500.0	0.00	0.00	7,497.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
7,600.0	0.00	0.00	7,597.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
7,700.0	0.00	0.00	7,697.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
7,800.0	0.00	0.00	7,797.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
7,900.0	0.00	0.00	7,897.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
8,000.0	0.00	0.00	7,997.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
8,100.0	0.00	0.00	8,097.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
8,200.0	0.00	0.00	8,197.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
8,300.0	0.00	0.00	8,297.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
8,400.0	0.00	0.00	8,397.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
8,500.0	0.00	0.00	8,497.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
8,600.0	0.00	0.00	8,597.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
8,700.0	0.00	0.00	8,697.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
8,800.0	0.00	0.00	8,797.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
8,900.0	0.00	0.00	8,897.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
9,000.0	0.00	0.00	8,997.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
9,100.0	0.00	0.00	9,097.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
9,200.0	0.00	0.00	9,197.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
9,300.0	0.00	0.00	9,297.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
9,400.0	0.00	0.00	9,397.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
9,500.0	0.00	0.00	9,497.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
9,600.0	0.00	0.00	9,597.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
9,700.0	0.00	0.00	9,697.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
9,800.0	0.00	0.00	9,797.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
9,900.0	0.00	0.00	9,897.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
10,000.0	0.00	0.00	9,997.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
10,100.0	0.00	0.00	10,097.4	-140.2	-28.0	-139.8	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)
10,200.0	0.00	0.00	10,197.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
10,300.0	0.00	0.00	10,297.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
10,400.0	0.00	0.00	10,397.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
10,500.0	0.00	0.00	10,497.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
10,600.0	0.00	0.00	10,597.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
10,700.0	0.00	0.00	10,697.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
10,800.0	0.00	0.00	10,797.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
10,900.0	0.00	0.00	10,897.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
11,000.0	0.00	0.00	10,997.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
11,100.0	0.00	0.00	11,097.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
11,200.0	0.00	0.00	11,197.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
11,300.0	0.00	0.00	11,297.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
11,400.0	0.00	0.00	11,397.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
11,500.0	0.00	0.00	11,497.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
11,600.0	0.00	0.00	11,597.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
11,700.0	0.00	0.00	11,697.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
11,800.0	0.00	0.00	11,797.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
11,900.0	0.00	0.00	11,897.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
12,000.0	0.00	0.00	11,997.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
12,100.0	0.00	0.00	12,097.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
12,200.0	0.00	0.00	12,197.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
12,300.0	0.00	0.00	12,297.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
12,400.0	0.00	0.00	12,397.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
12,500.0	0.00	0.00	12,497.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
12,600.0	0.00	0.00	12,597.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
12,700.0	0.00	0.00	12,697.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
12,800.0	0.00	0.00	12,797.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
12,900.0	0.00	0.00	12,897.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
13,000.0	0.00	0.00	12,997.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
13,100.0	0.00	0.00	13,097.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
13,200.0	0.00	0.00	13,197.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
13,300.0	0.00	0.00	13,297.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
13,400.0	0.00	0.00	13,397.4	-140.2	-28.0	-139.8	0.00	0.00	0.00
13,502.6	0.00	0.00	13,500.0	-140.2	-28.0	-139.8	0.00	0.00	0.00
TD at 13502.6									

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									
FTP (Red Bud State C	0.00	0.00	11,950.0	129.0	-30.0	394,592.00	865,690.00	32° 4' 49.746 N	103° 17' 9.976 W
- plan misses target center by 269.2usft at 11952.6usft MD (11950.0 TVD, -140.2 N, -28.0 E)									
- Point									
LTP (Red Bud State C	0.00	179.45	11,950.0	10,030.0	-125.0	404,493.00	865,595.00	32° 6' 27.722 N	103° 17' 9.962 W
- plan misses target center by 10170.7usft at 11952.6usft MD (11950.0 TVD, -140.2 N, -28.0 E)									
- Rectangle (sides W60.0 H9,900.2 D25.0)									



Intrepid
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well Red Bud State Com 25-36-32 #115H
Company:	Ameredev Operating, LLC	TVD Reference:	KB @ 3030.0usft (H&P 616)
Project:	Lea County, NM (NAD83 NME)	MD Reference:	KB @ 3030.0usft (H&P 616)
Site:	(Redbud State) Sec32_T-25-S_R-26-E	North Reference:	Grid
Well:	Red Bud State Com 25-36-32 #115H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	Pilot Hole		

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
2,213.2	2,213.2	-3.9	-0.8	HOLD - 3682.8 at 2213.2 MD
5,896.0	5,893.4	-138.3	-27.6	DROP - -2.00
6,002.6	6,000.0	-140.2	-28.0	HOLD - 7500.0 at 6002.6 MD
13,502.6	13,500.0	-140.2	-28.0	TD at 13502.6