

District I

1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720

District II

811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720

District III

1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170

District IV

1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form C-101

August 1, 2011

Permit 341681

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

1. Operator Name and Address AMEREDEV OPERATING, LLC 2901 Via Fortuna Austin, TX 78746		2. OGRID Number 372224
		3. API Number 30-025-51899
4. Property Code 320762	5. Property Name RED BUD 25 36 32 STATE COM	6. Well No. 163H

7. Surface Location

UL - Lot O	Section 32	Township 25S	Range 36E	Lot Idn O	Feet From 200	N/S Line S	Feet From 1820	E/W Line E	County Lea
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8. Proposed Bottom Hole Location

UL - Lot B	Section 29	Township 25S	Range 36E	Lot Idn B	Feet From 50	N/S Line N	Feet From 2310	E/W Line E	County Lea
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9. Pool Information

WC-025 G-08 S263620C;LWR BONE SPRIN	98150
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Additional Well Information

11. Work Type New Well	12. Well Type OIL	13. Cable/Rotary	14. Lease Type State	15. Ground Level Elevation 3003
16. Multiple N	17. Proposed Depth 19303	18. Formation Bone Spring Lime	19. Contractor	20. Spud Date 11/1/2023
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits**21. Proposed Casing and Cement Program**

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1224	992	0
Int1	12.25	10.75	45.5	5201	1457	0
Prod	8.75	5.5	17	19303	6106	0

Casing/Cement Program: Additional Comments

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22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	5000	5000	TBD

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief.
I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒ if applicable.

Signature:

Printed Name: Electronically filed by Christie Hanna

Title: Regulatory

Email Address: channa@ameredev.com

Date: 8/23/2023

Phone: 737-300-4723

OIL CONSERVATION DIVISION

Approved By: Paul F Kautz

Title: Geologist

Approved Date: 8/25/2023

Expiration Date: 8/25/2025

Conditions of Approval Attached

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State of New Mexico
Energy, Minerals & Natural Resources
Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

FORM C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

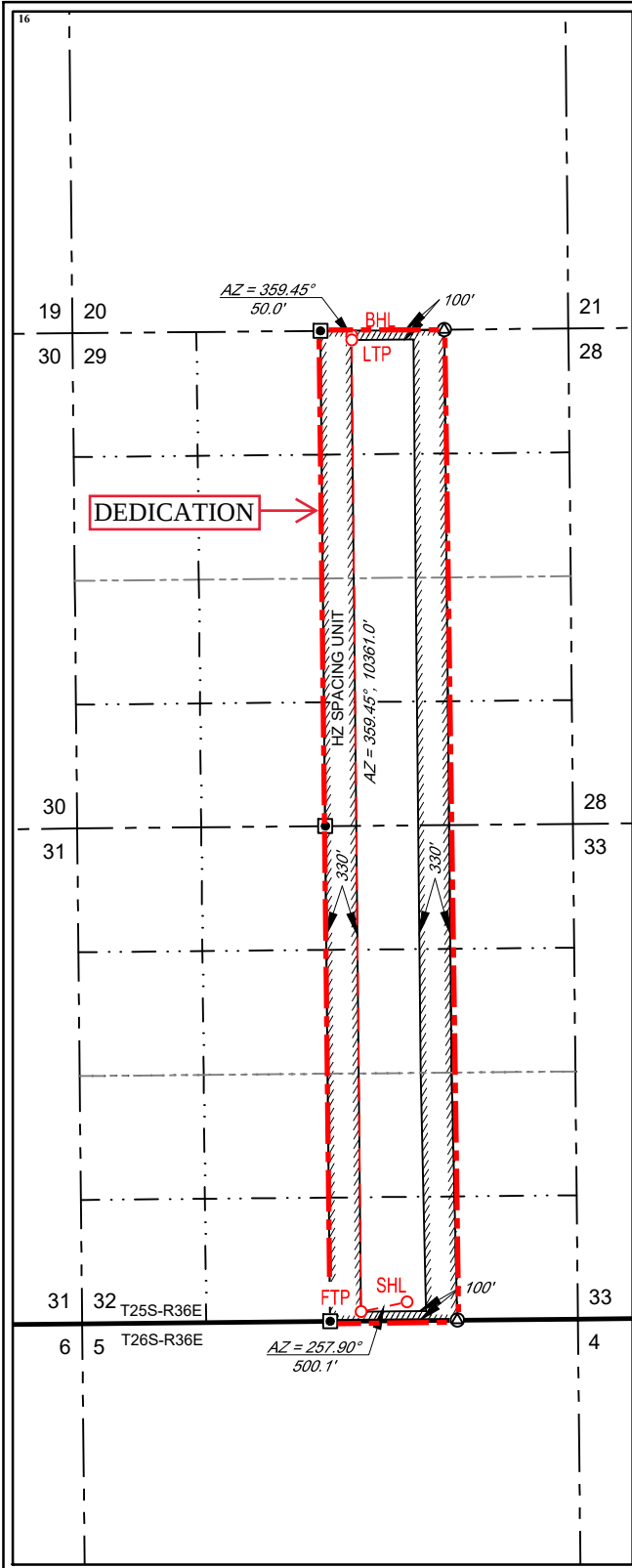
¹ API Number 30-025-	² Pool Code 98150	³ Pool Name WC-025 G-08 S263620C; LOWER BONE SPRING
⁴ Property Code 320762	⁵ Property Name RED BUD 25 36 32 STATE COM	
⁷ OGRID No. 372224	⁸ Operator Name AMEREDEV OPERATING, LLC.	⁶ Well Number 163H ⁹ Elevation 3003'

¹⁰ Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
0	32	25-S	36-E	-	200'	SOUTH	1820'	EAST	LEA

¹¹ Bottom Hole Location If Different From Surface									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	29	25-S	36-E	-	50'	NORTH	2310'	EAST	LEA

¹² Dedicated Acres 320	¹³ Joint or Infill	¹⁴ Consolidation Code C	¹⁵ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.



NEW MEXICO EAST
NAD 1983

SURFACE LOCATION (SHL)

200' FSL - SEC. 32 1820'
FEL - SEC. 32
X=866190 Y=394467
LAT.: N 32.0801283
LONG.: W 103.2844953

FIRST TAKE POINT (FTP)

100' FSL - SEC. 32
2310' FEL - SEC. 32
X=865701 Y=394362
LAT.: N 32.0798533
LONG.: W 103.2860771

LAST TAKE POINT (LTP)

100' FNL - SEC. 29
2310' FEL - SEC. 29
X=865601 Y=404723
LAT.: N 32.1083319
LONG.: W 103.2860736

BOTTOM HOLE LOCATION (BHL)

50' FNL - SEC. 29
2310' FEL - SEC. 29
X=865601 Y=404773
LAT.: N 32.1084693
LONG.: W 103.2860736

¹⁷OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Floyd Hammond 5/26/2023
Signature Date

hammond@ameredev.com
Printed Name E-mail Address

¹⁸SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true to the best of my belief.

05/02/2018

Date of Survey
Signature and Seal of Professional Surveyor



Certificate Number

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State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Conditions

Permit 341681

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: AMEREDEV OPERATING, LLC [372224] 2901 Via Fortuna Austin, TX 78746	API Number: 30-025-51899
	Well: RED BUD 25 36 32 STATE COM #163H

OCD Reviewer	Condition
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
pkautz	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
pkautz	IF ON ANY STRING CEMENT DOES NOT CIRCULATE, A RCBL MUST BE RUN ON THAT STRING OF CASING.

State of New Mexico
Energy, Minerals and Natural Resources DepartmentSubmit Electronically
Via E-permittingOil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505**NATURAL GAS MANAGEMENT PLAN**

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description**Effective May 25, 2021****I. Operator:** Ameredev II, LLC **OGRID:** 372224 **Date:** 06/07/2023**II. Type:** ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Red Bud 25 36 32 State Com 063H	30-025-		200' FSL & 1760' FEL	1,322	4,691	2,840
Red Bud 25 36 32 State Com 064H	30-025-		230' FNL & 325' FEL	1,322	4,691	2,840
Red Bud 25 36 32 State Com 163H	30-025-		200' FSL & 1820' FEL	1,322	4,691	2,840
Red Bud 25 36 32 State Com 164H	30-025-		200' FSL & 1720' FEL	1,322	4,691	2,840
Red Bud 25 36 32 State Com 183H	30-025-		200' FSL & 1780' FEL	1,322	4,691	2,840
Red Bud 25 36 32 State Com 263H	30-025-		200' FSL & 1740' FEL	1,322	4,691	2,840

IV. Central Delivery Point Name: _____ [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
Red Bud 25 36 32 State Com 063H	30-025-	11/01/2023	11/17/2023	02/03/2024	02/20/2024	02/23/2024
Red Bud 25 36 32 State Com 064H	30-025-	11/17/2023	12/02/2023	02/25/2024	03/19/2024	03/22/2024
Red Bud 25 36 32 State Com 163H	30-025-	12/05/2023	12/24/2023	03/06/2024	03/22/2024	03/25/2024
Red Bud 25 36 32 State Com 164H	30-025-	12/20/2023	01/12/2024	03/17/2024	04/02/2024	04/05/2024
Red Bud 25 36 32 State Com 183H	30-025-	01/08/2024	02/01/2024	04/14/2024	05/03/2024	05/06/2024
Red Bud 25 36 32 State Com 263H	30-025-	01/19/2024	02/15/2024	04/28/2024	05/20/2024	05/23/2024

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan

EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system.

If Operator checks this box, Operator will select one of the following:

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- (g) reinjection for enhanced oil recovery;
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature: <i>Cesca Yu</i>
Printed Name: Cesca Yu
Title: Engineer
E-mail Address: cyu@amerev.com
Date: 06/07/2023
Phone: 512-775-1417

OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)

Approved By:
Title:
Approval Date:
Conditions of Approval:

Natural Gas Management Plan

VI. Separation Equipment: Attach a complete description of how Operator will size separation equipment to optimize gas capture.

- Separation equipment is sized to allow for retention time and velocity to adequately separate oil, gas, and water at anticipated peak rates.
- All central tank battery equipment is designed to efficiently capture the remaining gas from the liquid phase.
- Valves and meters are designed to service without flow interruption or venting of gas.

VII. Operational Practices: Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F 19.15.27.8 NMAC.

19.15.27.8 (A)

Ameredev's field operations are designed with the goal of minimizing flaring and preventing venting of natural gas. If capturing the gas is not possible then the gas is combusted/flared using properly sized flares or combustors in accordance with state air permit rules.

19.15.27.8 (B) Venting and Flaring during drilling operations

- A properly-sized flare stack will be located at a minimum 100' from the nearest surface hole location on the pad.
- All natural gas produced during drilling operations will be flared. Venting will only occur if there is an equipment malfunction and/or to avoid risk of an immediate and substantial adverse impact on safety, public health, or the environment.

19.15.27.8 (C) Venting and Flaring during completions or recompletions operations.

- During all phases of flowback, wells will flow through a sand separator, or other appropriate flowback separation equipment, and the well stream will be directed to a central tank battery (CTB) through properly sized flowlines
- The CTB will have properly sized separation equipment for maximum anticipated flowrates
- Multiple stages of separation will be used to separate gas from liquids. All gas will be routed to a sales outlet. Fluids will be routed to tanks equipped with a closed loop system that will recover any residual gas from the tanks and route such gas to a sales outlet.

19.15.27.8 (D) Venting and Flaring during production operations.

- During production, the well stream will be routed to the CTB where multiple stages of separation will separate gas from liquids. All gas will be routed to a sales outlet. Fluids will be routed to tanks with a closed

loop system that will recover any residual gas from the tanks and route such gas to a sales outlet, minimizing tank emissions.

- Flares are equipped with auto-ignition systems and continuous pilot operations.
- Automatic gauging equipment is installed on all tanks.

19.15.27.8 (E) Performance Standards

- Production equipment will be designed to handle maximum anticipated rates and pressure.
- Automatic gauging equipment is installed on all tanks to minimize venting
- All flared gas will be combusted in a flare stack that is properly sized and designed to ensure proper combustion.
- Flares are equipped with continuous pilots and auto-ignitors along with remote monitoring of the pilot status
- Weekly AVOs and monthly LDAR inspections will be performed on all wells and facilities that produce more than 60 Mcfd.
- Gas/H₂S detectors will be installed throughout the facilities and wellheads to detect leaks and enable timely repairs.

19.15.27.8 (F) Measurement or estimation of vented and flared natural gas

- All high pressure flared gas is measured by equipment conforming to API 14.10.
- No meter bypasses are installed.
- When metering is not practical due to low pressure/low rate, the vented or flared volume will be estimated through flare flow curves with the assistance of air emissions consultants, as necessary.

VIII. Best Management Practices: Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

- Ameredev will use best management practices to vent as minimally as possible during well intervention operations and downhole well maintenance
- All natural gas is routed into the gas gathering system and directed to one of Ameredev's multiple gas sales outlets.
- All venting events will be recorded and all start-up, shutdown, maintenance logs will be kept for control equipment
- All control equipment will be maintained to provide highest run-time possible
- All procedures are drafted to keep venting and flaring to the absolute minimum

AMEREDEV**Red Bud 25 36 32 State Com 163H****Avalon Mid | 2 Mile Lateral**

County, St: Lea, NM

SHL: Section 32, T25S, R36E

200' FSL, 1820' FEL

BHL: Section 29, T25S, R36E

50' FNL, 2310' FEL

Wellhead: A - 13-5/8" 5M x 13-5/8" SOW

B - 13-5/8" 5M x 13-5/8" 5M

C - 13-5/8" 5M x 13-5/8" 5M

Tubing Spool: 7-1/16" 10M x 13-3/8" 5M

Xmas Tree: 2-9/16" 10M

Tubing: 3-1/2" L-80 6.5# 8rd EUE

Co. Well ID:

XXXXXX

AFE #:

2023-XXX

API #:

30-025-XXXXX

Permit:

NMOCD

GL:

3,003'

Field:

Delaware

Rig:

H&P 642

KB:

27.0'

Elevation:

3,030'

E-Mail:

drillingengineering@ameredev.com

Offsets:

General Notes	Hole Size	Casing & Cement	Geology	TVD	Mud Weight
Notify BLM prior to spud, running casing, cementing, and BOP testing Sundry to be sent before spud 1500 psi Surface Casing Test Done by Spudder Rig	17-1/2"	<u>Lead (100% OH excess)</u> 652 sx 12.8 ppg Class C Top of Lead @ 0' <u>Tail (100% OH excess)</u> 340 sx 14.8 ppg Class C Top of Tail @ 924' 13.375 54.5 J-55 BTC 0 - 1224	Conductor	122'	8.4 - 8.6 ppg FW
Stage 1 Designed to Circulate Cement to Surface DV Tool (Int) 3702 Casing Test to 1500 psi	12-1/4"	<u>Stg 1 Lead (50% OH excess)</u> 481 sx 11 ppg Class C - Low Portland Top of Lead @ 0' <u>Stg 1 Tail (50% OH excess)</u> 177 sx 14.8 ppg Class C Top of Tail @ 4451' <u>Stg 2 Lead (50% OH excess)</u> 693 sx 12.8 ppg Class C - Low Portland Top of Lead @ 0' <u>Stg 2 Tail (25% OH excess)</u> 106 sx 14.8 ppg Class C Top of Tail @ 3102' 10.75 45.5 HC L-80 SC BTC 0 - 5201	Salado Tansill Capitan Lamar	1,602' 3,355' 3,802' 5,076'	10 ppg Brine
FIT to 10.5 ppg EMW	8-3/4" Vertical		Bell Canyon Brushy Canyon Bone Spring Lime	5,159' 6,931' 8,075'	9.0 - 9.5 ppg Cut Brine
12° DLS curve section Surveys: 45° Curve, 90° Lateral LTP VS: 10311' 90° INC, 359.45° AZM BHL VS: 10361' 90° INC, 359.45° AZM	8-3/4" Curve 8-1/2" Lateral	<u>Lead (50% OH excess)</u> 1965 sx 10.6 ppg ProLite Top of Lead @ 0' <u>Tail (20% OH excess)</u> 4141 sx 14.5 ppg Class H - Premium PozMix Top of Tail @ 9303' 5.5 17 USS RYS P-110 Eagle SFH 0 - 19303 5-1/2" marker jts @ ~7950', 14300' MD 19303' MD 8,580' TVD @ BHL 10,361' VS	No Casing Test		9.0 - 9.5 ppg Cut Brine



Ameredev Operating

Lea County, NM (N83-NME)

Red Bud_Holly

RED BUD 25 36 32 STATE COM 163H

OWB

Plan: PWP

Standard Planning Report - Geographic

31 May, 2023



Planning Report - Geographic

Database:	AUS-COMPASS - EDM_15 - 32bit	Local Co-ordinate Reference:	Well RED BUD STATE COM25 36 32 163H
Company:	Ameredev Operating	TVD Reference:	KB=27' @ 3030.0usft
Project:	Lea County, NM (N83-NME)	MD Reference:	KB=27' @ 3030.0usft
Site:	Red Bud_Holly	North Reference:	Grid
Well:	RED BUD STATE COM 25 36 32 163H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP		

Project	Lea County, NM (N83-NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Red Bud_Holly				
Site Position:		Northing:	394,038.95 usft	Latitude:	32.0789464
From:	Lat/Long	Easting:	866,383.48 usft	Longitude:	-103.2838831
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "		

Well	RED BUD STATE COM 25 36 32 163H					
Well Position	+N/-S	0.0 usft	Northing:	394,467.08 usft	Latitude:	32.0801283
	+E/-W	0.0 usft	Easting:	866,189.67 usft	Longitude:	-103.2844953
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft	Ground Level:	3,003.0 usft
Grid Convergence:		0.56 °				

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	5/31/2023	6.17	59.74	47,235.85589045

Design	PWP			
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	359.45

Plan Survey Tool Program	Date	5/31/2023		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	19,303.3 PWP (OWB)	MWD	
			OWSG MWD - Standard	

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	
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,303.3	6.07	217.82	1,302.7	-12.7	-9.8	2.00	2.00	0.00	217.82	
8,102.7	6.07	217.82	8,064.1	-580.3	-450.4	0.00	0.00	0.00	0.00	
8,892.3	90.00	359.45	8,580.0	-104.8	-489.0	12.00	10.63	17.94	141.48	FTP(RBSC 163H)
19,303.3	90.00	359.45	8,580.0	10,305.7	-589.0	0.00	0.00	0.00	0.00	BHL(RBSC 163H)



Planning Report - Geographic

Database:	AUS-COMPASS - EDM_15 - 32bit	Local Co-ordinate Reference:	Well RED BUD STATE COM25 36 32 163H
Company:	Ameredev Operating	TVD Reference:	KB=27' @ 3030.0usft
Project:	Lea County, NM (N83-NME)	MD Reference:	KB=27' @ 3030.0usft
Site:	Red Bud_Holly	North Reference:	Grid
Well:	RED BUD STATE COM 25 36 32 163H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.0	0.00	0.00	0.0	0.0	0.0	394,467.08	866,189.67	32.0801283	-103.2844953
100.0	0.00	0.00	100.0	0.0	0.0	394,467.08	866,189.67	32.0801283	-103.2844953
200.0	0.00	0.00	200.0	0.0	0.0	394,467.08	866,189.67	32.0801283	-103.2844953
300.0	0.00	0.00	300.0	0.0	0.0	394,467.08	866,189.67	32.0801283	-103.2844953
400.0	0.00	0.00	400.0	0.0	0.0	394,467.08	866,189.67	32.0801283	-103.2844953
500.0	0.00	0.00	500.0	0.0	0.0	394,467.08	866,189.67	32.0801283	-103.2844953
600.0	0.00	0.00	600.0	0.0	0.0	394,467.08	866,189.67	32.0801283	-103.2844953
700.0	0.00	0.00	700.0	0.0	0.0	394,467.08	866,189.67	32.0801283	-103.2844953
800.0	0.00	0.00	800.0	0.0	0.0	394,467.08	866,189.67	32.0801283	-103.2844953
900.0	0.00	0.00	900.0	0.0	0.0	394,467.08	866,189.67	32.0801283	-103.2844953
1,000.0	0.00	0.00	1,000.0	0.0	0.0	394,467.08	866,189.67	32.0801283	-103.2844953
Start Build 2.00									
1,100.0	2.00	217.82	1,100.0	-1.4	-1.1	394,465.71	866,188.60	32.0801246	-103.2844988
1,199.2	3.98	217.82	1,199.0	-5.5	-4.2	394,461.62	866,185.43	32.0801134	-103.2845092
Rustler									
1,200.0	4.00	217.82	1,199.8	-5.5	-4.3	394,461.57	866,185.39	32.0801133	-103.2845093
1,303.3	6.07	217.82	1,302.7	-12.7	-9.8	394,454.41	866,179.84	32.0800938	-103.2845274
Start 6799.4 hold at 1303.3 MD									
1,400.0	6.07	217.82	1,398.9	-20.7	-16.1	394,446.34	866,173.57	32.0800717	-103.2845479
1,500.0	6.07	217.82	1,498.3	-29.1	-22.6	394,437.99	866,167.09	32.0800490	-103.2845691
1,600.0	6.07	217.82	1,597.8	-37.4	-29.1	394,429.64	866,160.61	32.0800262	-103.2845903
1,604.3	6.07	217.82	1,602.0	-37.8	-29.3	394,429.29	866,160.34	32.0800252	-103.2845912
Salado									
1,700.0	6.07	217.82	1,697.2	-45.8	-35.5	394,421.30	866,154.14	32.0800034	-103.2846115
1,800.0	6.07	217.82	1,796.7	-54.1	-42.0	394,412.95	866,147.66	32.0799807	-103.2846326
1,900.0	6.07	217.82	1,896.1	-62.5	-48.5	394,404.60	866,141.18	32.0799579	-103.2846538
2,000.0	6.07	217.82	1,995.5	-70.8	-55.0	394,396.25	866,134.70	32.0799351	-103.2846750
2,100.0	6.07	217.82	2,095.0	-79.2	-61.5	394,387.90	866,128.22	32.0799123	-103.2846962
2,200.0	6.07	217.82	2,194.4	-87.5	-67.9	394,379.56	866,121.74	32.0798896	-103.2847173
2,300.0	6.07	217.82	2,293.9	-95.9	-74.4	394,371.21	866,115.26	32.0798668	-103.2847385
2,400.0	6.07	217.82	2,393.3	-104.2	-80.9	394,362.86	866,108.78	32.0798440	-103.2847597
2,500.0	6.07	217.82	2,492.7	-112.6	-87.4	394,354.51	866,102.30	32.0798213	-103.2847809
2,600.0	6.07	217.82	2,592.2	-120.9	-93.8	394,346.17	866,095.82	32.0797985	-103.2848021
2,700.0	6.07	217.82	2,691.6	-129.3	-100.3	394,337.82	866,089.34	32.0797757	-103.2848232
2,800.0	6.07	217.82	2,791.1	-137.6	-106.8	394,329.47	866,082.87	32.0797529	-103.2848444
2,900.0	6.07	217.82	2,890.5	-146.0	-113.3	394,321.12	866,076.39	32.0797302	-103.2848656
3,000.0	6.07	217.82	2,989.9	-154.3	-119.8	394,312.77	866,069.91	32.0797074	-103.2848868
3,100.0	6.07	217.82	3,089.4	-162.7	-126.2	394,304.43	866,063.43	32.0796846	-103.2849079
3,200.0	6.07	217.82	3,188.8	-171.0	-132.7	394,296.08	866,056.95	32.0796619	-103.2849291
3,300.0	6.07	217.82	3,288.3	-179.4	-139.2	394,287.73	866,050.47	32.0796391	-103.2849503
3,367.1	6.07	217.82	3,355.0	-185.0	-143.6	394,282.13	866,046.12	32.0796238	-103.2849645
Tansill									
3,400.0	6.07	217.82	3,387.7	-187.7	-145.7	394,279.38	866,043.99	32.0796163	-103.2849715
3,500.0	6.07	217.82	3,487.1	-196.0	-152.2	394,271.03	866,037.51	32.0795935	-103.2849927
3,538.0	6.07	217.82	3,524.9	-199.2	-154.6	394,267.86	866,035.05	32.0795849	-103.2850007
NMNM137470 Entry at 3538.0 MD									
3,600.0	6.07	217.82	3,586.6	-204.4	-158.6	394,262.69	866,031.03	32.0795708	-103.2850138
3,700.0	6.07	217.82	3,686.0	-212.7	-165.1	394,254.34	866,024.55	32.0795480	-103.2850350
3,800.0	6.07	217.82	3,785.5	-221.1	-171.6	394,245.99	866,018.07	32.0795252	-103.2850562
3,816.6	6.07	217.82	3,802.0	-222.5	-172.7	394,244.60	866,017.00	32.0795214	-103.2850597
Capitan									
3,900.0	6.07	217.82	3,884.9	-229.4	-178.1	394,237.64	866,011.59	32.0795025	-103.2850774
4,000.0	6.07	217.82	3,984.3	-237.8	-184.6	394,229.30	866,005.12	32.0794797	-103.2850985
4,100.0	6.07	217.82	4,083.8	-246.1	-191.0	394,220.95	865,998.64	32.0794569	-103.2851197



Planning Report - Geographic

Database:	AUS-COMPASS - EDM_15 - 32bit	Local Co-ordinate Reference:	Well RED BUD STATE COM25 36 32 163H
Company:	Ameredev Operating	TVD Reference:	KB=27' @ 3030.0usft
Project:	Lea County, NM (N83-NME)	MD Reference:	KB=27' @ 3030.0usft
Site:	Red Bud_Holly	North Reference:	Grid
Well:	RED BUD STATE COM 25 36 32 163H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
4,200.0	6.07	217.82	4,183.2	-254.5	-197.5	394,212.60	865,992.16	32.0794341	-103.2851409	
4,300.0	6.07	217.82	4,282.7	-262.8	-204.0	394,204.25	865,985.68	32.0794114	-103.2851621	
4,400.0	6.07	217.82	4,382.1	-271.2	-210.5	394,195.90	865,979.20	32.0793886	-103.2851833	
4,500.0	6.07	217.82	4,481.5	-279.5	-217.0	394,187.56	865,972.72	32.0793658	-103.2852044	
4,600.0	6.07	217.82	4,581.0	-287.9	-223.4	394,179.21	865,966.24	32.0793431	-103.2852256	
4,700.0	6.07	217.82	4,680.4	-296.2	-229.9	394,170.86	865,959.76	32.0793203	-103.2852468	
4,800.0	6.07	217.82	4,779.9	-304.6	-236.4	394,162.51	865,953.28	32.0792975	-103.2852680	
4,900.0	6.07	217.82	4,879.3	-312.9	-242.9	394,154.16	865,946.80	32.0792748	-103.2852891	
5,000.0	6.07	217.82	4,978.7	-321.3	-249.3	394,145.82	865,940.32	32.0792520	-103.2853103	
5,097.8	6.07	217.82	5,076.0	-329.4	-255.7	394,137.65	865,933.99	32.0792297	-103.2853310	
Lamar										
5,100.0	6.07	217.82	5,078.2	-329.6	-255.8	394,137.47	865,933.85	32.0792292	-103.2853315	
5,181.3	6.07	217.82	5,159.0	-336.4	-261.1	394,130.68	865,928.58	32.0792107	-103.2853487	
Bell Canyon										
5,200.0	6.07	217.82	5,177.6	-338.0	-262.3	394,129.12	865,927.37	32.0792064	-103.2853527	
5,300.0	6.07	217.82	5,277.1	-346.3	-268.8	394,120.77	865,920.89	32.0791837	-103.2853738	
5,400.0	6.07	217.82	5,376.5	-354.7	-275.3	394,112.43	865,914.41	32.0791609	-103.2853950	
5,500.0	6.07	217.82	5,475.9	-363.0	-281.7	394,104.08	865,907.93	32.0791381	-103.2854162	
5,600.0	6.07	217.82	5,575.4	-371.4	-288.2	394,095.73	865,901.45	32.0791154	-103.2854374	
5,700.0	6.07	217.82	5,674.8	-379.7	-294.7	394,087.38	865,894.97	32.0790926	-103.2854586	
5,800.0	6.07	217.82	5,774.3	-388.1	-301.2	394,079.03	865,888.49	32.0790698	-103.2854797	
5,900.0	6.07	217.82	5,873.7	-396.4	-307.7	394,070.69	865,882.01	32.0790470	-103.2855009	
6,000.0	6.07	217.82	5,973.1	-404.7	-314.1	394,062.34	865,875.53	32.0790243	-103.2855221	
6,100.0	6.07	217.82	6,072.6	-413.1	-320.6	394,053.99	865,869.05	32.0790015	-103.2855433	
6,200.0	6.07	217.82	6,172.0	-421.4	-327.1	394,045.64	865,862.58	32.0789787	-103.2855644	
6,300.0	6.07	217.82	6,271.5	-429.8	-333.6	394,037.29	865,856.10	32.0789560	-103.2855856	
6,400.0	6.07	217.82	6,370.9	-438.1	-340.1	394,028.95	865,849.62	32.0789332	-103.2856068	
6,500.0	6.07	217.82	6,470.3	-446.5	-346.5	394,020.60	865,843.14	32.0789104	-103.2856280	
6,600.0	6.07	217.82	6,569.8	-454.8	-353.0	394,012.25	865,836.66	32.0788876	-103.2856492	
6,700.0	6.07	217.82	6,669.2	-463.2	-359.5	394,003.90	865,830.18	32.0788649	-103.2856703	
6,800.0	6.07	217.82	6,768.7	-471.5	-366.0	393,995.56	865,823.70	32.0788421	-103.2856915	
6,900.0	6.07	217.82	6,868.1	-479.9	-372.5	393,987.21	865,817.22	32.0788193	-103.2857127	
6,963.3	6.07	217.82	6,931.0	-485.2	-376.6	393,981.93	865,813.12	32.0788049	-103.2857261	
Brushy Canyon										
7,000.0	6.07	217.82	6,967.5	-488.2	-378.9	393,978.86	865,810.74	32.0787966	-103.2857339	
7,100.0	6.07	217.82	7,067.0	-496.6	-385.4	393,970.51	865,804.26	32.0787738	-103.2857550	
7,200.0	6.07	217.82	7,166.4	-504.9	-391.9	393,962.16	865,797.78	32.0787510	-103.2857762	
7,300.0	6.07	217.82	7,265.9	-513.3	-398.4	393,953.82	865,791.30	32.0787282	-103.2857974	
7,400.0	6.07	217.82	7,365.3	-521.6	-404.8	393,945.47	865,784.83	32.0787055	-103.2858186	
7,500.0	6.07	217.82	7,464.7	-530.0	-411.3	393,937.12	865,778.35	32.0786827	-103.2858397	
7,600.0	6.07	217.82	7,564.2	-538.3	-417.8	393,928.77	865,771.87	32.0786599	-103.2858609	
7,700.0	6.07	217.82	7,663.6	-546.7	-424.3	393,920.42	865,765.39	32.0786372	-103.2858821	
7,800.0	6.07	217.82	7,763.1	-555.0	-430.8	393,912.08	865,758.91	32.0786144	-103.2859033	
7,900.0	6.07	217.82	7,862.5	-563.4	-437.2	393,903.73	865,752.43	32.0785916	-103.2859245	
8,000.0	6.07	217.82	7,961.9	-571.7	-443.7	393,895.38	865,745.95	32.0785688	-103.2859456	
8,102.7	6.07	217.82	8,064.1	-580.3	-450.4	393,886.80	865,739.29	32.0785454	-103.2859674	
KOP-Start DLS 12.00 TFO 141.48										
8,113.7	5.10	227.06	8,075.0	-581.1	-451.1	393,886.02	865,738.58	32.0785433	-103.2859697	
Bone Spring Lime										
8,125.0	4.31	240.55	8,086.3	-581.6	-451.8	393,885.46	865,737.84	32.0785418	-103.2859721	
8,150.0	3.88	283.15	8,111.2	-581.9	-453.5	393,885.19	865,736.20	32.0785411	-103.2859774	
8,175.0	5.44	315.60	8,136.1	-580.8	-455.1	393,886.23	865,734.55	32.0785440	-103.2859827	
8,200.0	7.88	330.98	8,161.0	-578.5	-456.8	393,888.58	865,732.89	32.0785505	-103.2859880	
8,225.0	10.61	338.83	8,185.6	-574.9	-458.4	393,892.22	865,731.23	32.0785606	-103.2859933	



Planning Report - Geographic

Database:	AUS-COMPASS - EDM_15 - 32bit	Local Co-ordinate Reference:	Well RED BUD STATE COM25 36 32 163H
Company:	Ameredev Operating	TVD Reference:	KB=27' @ 3030.0usft
Project:	Lea County, NM (N83-NME)	MD Reference:	KB=27' @ 3030.0usft
Site:	Red Bud_Holly	North Reference:	Grid
Well:	RED BUD STATE COM 25 36 32 163H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
8,250.0	13.45	343.44	8,210.1	-569.9	-460.1	393,897.16	865,729.57	32.0785742	-103.2859985	
8,275.0	16.35	346.46	8,234.2	-563.7	-461.8	393,903.37	865,727.91	32.0785913	-103.2860036	
8,300.0	19.28	348.58	8,258.0	-556.3	-463.4	393,910.83	865,726.27	32.0786118	-103.2860087	
8,325.0	22.23	350.16	8,281.4	-547.5	-465.0	393,919.54	865,724.64	32.0786358	-103.2860137	
8,350.0	25.19	351.39	8,304.3	-537.6	-466.6	393,929.46	865,723.04	32.0786631	-103.2860185	
8,375.0	28.15	352.37	8,326.6	-526.5	-468.2	393,940.57	865,721.46	32.0786937	-103.2860233	
8,400.0	31.13	353.18	8,348.4	-514.3	-469.8	393,952.83	865,719.91	32.0787274	-103.2860279	
8,425.0	34.10	353.86	8,369.4	-500.9	-471.3	393,966.22	865,718.39	32.0787643	-103.2860324	
8,450.0	37.08	354.44	8,389.8	-486.4	-472.8	393,980.69	865,716.91	32.0788041	-103.2860367	
8,475.0	40.07	354.95	8,409.3	-470.9	-474.2	393,996.21	865,715.47	32.0788468	-103.2860409	
8,500.0	43.05	355.40	8,428.0	-454.3	-475.6	394,012.74	865,714.08	32.0788923	-103.2860448	
8,525.0	46.04	355.80	8,445.8	-436.9	-476.9	394,030.22	865,712.74	32.0789403	-103.2860486	
8,550.0	49.03	356.17	8,462.7	-418.5	-478.2	394,048.62	865,711.45	32.0789909	-103.2860522	
8,575.0	52.02	356.50	8,478.6	-399.2	-479.5	394,067.87	865,710.21	32.0790439	-103.2860556	
8,600.0	55.01	356.80	8,493.5	-379.1	-480.6	394,087.93	865,709.04	32.0790991	-103.2860588	
8,625.0	58.00	357.09	8,507.3	-358.3	-481.7	394,108.75	865,707.93	32.0791563	-103.2860617	
8,650.0	60.99	357.35	8,519.9	-336.8	-482.8	394,130.26	865,706.89	32.0792155	-103.2860644	
8,675.0	63.98	357.60	8,531.5	-314.7	-483.8	394,152.41	865,705.91	32.0792764	-103.2860668	
8,700.0	66.97	357.84	8,541.9	-292.0	-484.7	394,175.13	865,705.01	32.0793388	-103.2860690	
8,725.0	69.96	358.07	8,551.0	-268.7	-485.5	394,198.37	865,704.18	32.0794027	-103.2860710	
8,750.0	72.96	358.29	8,559.0	-245.0	-486.2	394,222.06	865,703.43	32.0794679	-103.2860727	
8,775.0	75.95	358.50	8,565.7	-221.0	-486.9	394,246.13	865,702.76	32.0795340	-103.2860741	
8,795.0	78.34	358.67	8,570.1	-201.5	-487.4	394,265.61	865,702.28	32.0795876	-103.2860750	
NMNM137470 Exit at 8795.0 MD										
8,800.0	78.94	358.71	8,571.1	-196.6	-487.5	394,270.53	865,702.16	32.0796011	-103.2860752	
8,825.0	81.94	358.91	8,575.3	-171.9	-488.0	394,295.17	865,701.65	32.0796689	-103.2860761	
8,850.0	84.93	359.11	8,578.1	-147.1	-488.4	394,320.00	865,701.23	32.0797371	-103.2860767	
8,875.0	87.92	359.31	8,579.7	-122.1	-488.8	394,344.95	865,700.88	32.0798057	-103.2860770	
8,892.3	90.00	359.45	8,580.0	-104.8	-489.0	394,362.28	865,700.70	32.0798533	-103.2860771	
LP-Start 10411.0 hold at 8892.3 MD										
8,900.0	90.00	359.45	8,580.0	-97.1	-489.1	394,369.94	865,700.62	32.0798744	-103.2860771	
9,000.0	90.00	359.45	8,580.0	2.9	-490.0	394,469.94	865,699.66	32.0801492	-103.2860771	
9,100.0	90.00	359.45	8,580.0	102.8	-491.0	394,569.93	865,698.70	32.0804241	-103.2860770	
9,200.0	90.00	359.45	8,580.0	202.8	-491.9	394,669.93	865,697.74	32.0806990	-103.2860770	
9,300.0	90.00	359.45	8,580.0	302.8	-492.9	394,769.92	865,696.78	32.0809738	-103.2860770	
9,400.0	90.00	359.45	8,580.0	402.8	-493.9	394,869.92	865,695.82	32.0812487	-103.2860769	
9,500.0	90.00	359.45	8,580.0	502.8	-494.8	394,969.91	865,694.86	32.0815236	-103.2860769	
9,600.0	90.00	359.45	8,580.0	602.8	-495.8	395,069.91	865,693.90	32.0817984	-103.2860769	
9,700.0	90.00	359.45	8,580.0	702.8	-496.7	395,169.90	865,692.94	32.0820733	-103.2860768	
9,800.0	90.00	359.45	8,580.0	802.8	-497.7	395,269.90	865,691.98	32.0823482	-103.2860768	
9,900.0	90.00	359.45	8,580.0	902.8	-498.7	395,369.89	865,691.01	32.0826230	-103.2860768	
10,000.0	90.00	359.45	8,580.0	1,002.8	-499.6	395,469.89	865,690.05	32.0828979	-103.2860767	
10,100.0	90.00	359.45	8,580.0	1,102.8	-500.6	395,569.89	865,689.09	32.0831728	-103.2860767	
10,200.0	90.00	359.45	8,580.0	1,202.8	-501.5	395,669.88	865,688.13	32.0834476	-103.2860767	
10,300.0	90.00	359.45	8,580.0	1,302.8	-502.5	395,769.88	865,687.17	32.0837225	-103.2860766	
10,400.0	90.00	359.45	8,580.0	1,402.8	-503.5	395,869.87	865,686.21	32.0839973	-103.2860766	
10,500.0	90.00	359.45	8,580.0	1,502.8	-504.4	395,969.87	865,685.25	32.0842722	-103.2860766	
10,600.0	90.00	359.45	8,580.0	1,602.8	-505.4	396,069.86	865,684.29	32.0845471	-103.2860765	
10,700.0	90.00	359.45	8,580.0	1,702.8	-506.3	396,169.86	865,683.33	32.0848219	-103.2860765	
10,800.0	90.00	359.45	8,580.0	1,802.8	-507.3	396,269.85	865,682.37	32.0850968	-103.2860765	
10,900.0	90.00	359.45	8,580.0	1,902.8	-508.3	396,369.85	865,681.41	32.0853717	-103.2860764	
11,000.0	90.00	359.45	8,580.0	2,002.8	-509.2	396,469.84	865,680.45	32.0856465	-103.2860764	
11,100.0	90.00	359.45	8,580.0	2,102.8	-510.2	396,569.84	865,679.48	32.0859214	-103.2860764	
11,200.0	90.00	359.45	8,580.0	2,202.8	-511.1	396,669.83	865,678.52	32.0861963	-103.2860763	



Planning Report - Geographic

Database:	AUS-COMPASS - EDM_15 - 32bit	Local Co-ordinate Reference:	Well RED BUD STATE COM25 36 32 163H
Company:	Ameredev Operating	TVD Reference:	KB=27' @ 3030.0usft
Project:	Lea County, NM (N83-NME)	MD Reference:	KB=27' @ 3030.0usft
Site:	Red Bud_Holly	North Reference:	Grid
Well:	RED BUD STATE COM 25 36 32 163H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
11,300.0	90.00	359.45	8,580.0	2,302.7	-512.1	396,769.83	865,677.56	32.0864711	-103.2860763
11,400.0	90.00	359.45	8,580.0	2,402.7	-513.1	396,869.83	865,676.60	32.0867460	-103.2860763
11,500.0	90.00	359.45	8,580.0	2,502.7	-514.0	396,969.82	865,675.64	32.0870208	-103.2860762
11,600.0	90.00	359.45	8,580.0	2,602.7	-515.0	397,069.82	865,674.68	32.0872957	-103.2860762
11,700.0	90.00	359.45	8,580.0	2,702.7	-516.0	397,169.81	865,673.72	32.0875706	-103.2860762
11,800.0	90.00	359.45	8,580.0	2,802.7	-516.9	397,269.81	865,672.76	32.0878454	-103.2860761
11,900.0	90.00	359.45	8,580.0	2,902.7	-517.9	397,369.80	865,671.80	32.0881203	-103.2860761
12,000.0	90.00	359.45	8,580.0	3,002.7	-518.8	397,469.80	865,670.84	32.0883952	-103.2860761
12,100.0	90.00	359.45	8,580.0	3,102.7	-519.8	397,569.79	865,669.88	32.0886700	-103.2860760
12,200.0	90.00	359.45	8,580.0	3,202.7	-520.8	397,669.79	865,668.92	32.0889449	-103.2860760
12,300.0	90.00	359.45	8,580.0	3,302.7	-521.7	397,769.78	865,667.96	32.0892197	-103.2860760
12,400.0	90.00	359.45	8,580.0	3,402.7	-522.7	397,869.78	865,666.99	32.0894946	-103.2860759
12,500.0	90.00	359.45	8,580.0	3,502.7	-523.6	397,969.77	865,666.03	32.0897695	-103.2860759
12,600.0	90.00	359.45	8,580.0	3,602.7	-524.6	398,069.77	865,665.07	32.0900443	-103.2860759
12,700.0	90.00	359.45	8,580.0	3,702.7	-525.6	398,169.77	865,664.11	32.0903192	-103.2860758
12,800.0	90.00	359.45	8,580.0	3,802.7	-526.5	398,269.76	865,663.15	32.0905941	-103.2860758
12,900.0	90.00	359.45	8,580.0	3,902.7	-527.5	398,369.76	865,662.19	32.0908689	-103.2860758
13,000.0	90.00	359.45	8,580.0	4,002.7	-528.4	398,469.75	865,661.23	32.0911438	-103.2860757
13,100.0	90.00	359.45	8,580.0	4,102.7	-529.4	398,569.75	865,660.27	32.0914187	-103.2860757
13,200.0	90.00	359.45	8,580.0	4,202.7	-530.4	398,669.74	865,659.31	32.0916935	-103.2860757
13,300.0	90.00	359.45	8,580.0	4,302.7	-531.3	398,769.74	865,658.35	32.0919684	-103.2860756
13,400.0	90.00	359.45	8,580.0	4,402.6	-532.3	398,869.73	865,657.39	32.0922432	-103.2860756
13,500.0	90.00	359.45	8,580.0	4,502.6	-533.2	398,969.73	865,656.43	32.0925181	-103.2860756
13,600.0	90.00	359.45	8,580.0	4,602.6	-534.2	399,069.72	865,655.47	32.0927930	-103.2860755
13,700.0	90.00	359.45	8,580.0	4,702.6	-535.2	399,169.72	865,654.50	32.0930678	-103.2860755
13,800.0	90.00	359.45	8,580.0	4,802.6	-536.1	399,269.71	865,653.54	32.0933427	-103.2860755
13,900.0	90.00	359.45	8,580.0	4,902.6	-537.1	399,369.71	865,652.58	32.0936176	-103.2860754
14,000.0	90.00	359.45	8,580.0	5,002.6	-538.1	399,469.71	865,651.62	32.0938924	-103.2860754
14,100.0	90.00	359.45	8,580.0	5,102.6	-539.0	399,569.70	865,650.66	32.0941673	-103.2860754
14,200.0	90.00	359.45	8,580.0	5,202.6	-540.0	399,669.70	865,649.70	32.0944422	-103.2860753
14,300.0	90.00	359.45	8,580.0	5,302.6	-540.9	399,769.69	865,648.74	32.0947170	-103.2860753
14,400.0	90.00	359.45	8,580.0	5,402.6	-541.9	399,869.69	865,647.78	32.0949919	-103.2860753
14,500.0	90.00	359.45	8,580.0	5,502.6	-542.9	399,969.68	865,646.82	32.0952667	-103.2860752
14,600.0	90.00	359.45	8,580.0	5,602.6	-543.8	400,069.68	865,645.86	32.0955416	-103.2860752
14,700.0	90.00	359.45	8,580.0	5,702.6	-544.8	400,169.67	865,644.90	32.0958165	-103.2860752
14,800.0	90.00	359.45	8,580.0	5,802.6	-545.7	400,269.67	865,643.94	32.0960913	-103.2860751
14,900.0	90.00	359.45	8,580.0	5,902.6	-546.7	400,369.66	865,642.97	32.0963662	-103.2860751
15,000.0	90.00	359.45	8,580.0	6,002.6	-547.7	400,469.66	865,642.01	32.0966411	-103.2860751
15,100.0	90.00	359.45	8,580.0	6,102.6	-548.6	400,569.65	865,641.05	32.0969159	-103.2860750
15,200.0	90.00	359.45	8,580.0	6,202.6	-549.6	400,669.65	865,640.09	32.0971908	-103.2860750
15,300.0	90.00	359.45	8,580.0	6,302.6	-550.5	400,769.65	865,639.13	32.0974656	-103.2860750
15,400.0	90.00	359.45	8,580.0	6,402.6	-551.5	400,869.64	865,638.17	32.0977405	-103.2860749
15,500.0	90.00	359.45	8,580.0	6,502.6	-552.5	400,969.64	865,637.21	32.0980154	-103.2860749
15,600.0	90.00	359.45	8,580.0	6,602.5	-553.4	401,069.63	865,636.25	32.0982902	-103.2860749
15,700.0	90.00	359.45	8,580.0	6,702.5	-554.4	401,169.63	865,635.29	32.0985651	-103.2860748
15,800.0	90.00	359.45	8,580.0	6,802.5	-555.3	401,269.62	865,634.33	32.0988400	-103.2860748
15,900.0	90.00	359.45	8,580.0	6,902.5	-556.3	401,369.62	865,633.37	32.0991148	-103.2860748
16,000.0	90.00	359.45	8,580.0	7,002.5	-557.3	401,469.61	865,632.41	32.0993897	-103.2860747
16,100.0	90.00	359.45	8,580.0	7,102.5	-558.2	401,569.61	865,631.45	32.0996646	-103.2860747
16,200.0	90.00	359.45	8,580.0	7,202.5	-559.2	401,669.60	865,630.48	32.0999394	-103.2860747
16,300.0	90.00	359.45	8,580.0	7,302.5	-560.1	401,769.60	865,629.52	32.1002143	-103.2860746
16,400.0	90.00	359.45	8,580.0	7,402.5	-561.1	401,869.59	865,628.56	32.1004891	-103.2860746
16,500.0	90.00	359.45	8,580.0	7,502.5	-562.1	401,969.59	865,627.60	32.1007640	-103.2860746
16,600.0	90.00	359.45	8,580.0	7,602.5	-563.0	402,069.59	865,626.64	32.1010389	-103.2860745
16,700.0	90.00	359.45	8,580.0	7,702.5	-564.0	402,169.58	865,625.68	32.1013137	-103.2860745



Planning Report - Geographic

Database:	AUS-COMPASS - EDM_15 - 32bit	Local Co-ordinate Reference:	Well RED BUD STATE COM25 36 32 163H
Company:	Ameredev Operating	TVD Reference:	KB=27' @ 3030.0usft
Project:	Lea County, NM (N83-NME)	MD Reference:	KB=27' @ 3030.0usft
Site:	Red Bud_Holly	North Reference:	Grid
Well:	RED BUD STATE COM 25 36 32 163H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
16,800.0	90.00	359.45	8,580.0	7,802.5	-565.0	402,269.58	865,624.72	32.1015886	-103.2860745
16,900.0	90.00	359.45	8,580.0	7,902.5	-565.9	402,369.57	865,623.76	32.1018635	-103.2860744
17,000.0	90.00	359.45	8,580.0	8,002.5	-566.9	402,469.57	865,622.80	32.1021383	-103.2860744
17,100.0	90.00	359.45	8,580.0	8,102.5	-567.8	402,569.56	865,621.84	32.1024132	-103.2860744
17,200.0	90.00	359.45	8,580.0	8,202.5	-568.8	402,669.56	865,620.88	32.1026880	-103.2860743
17,300.0	90.00	359.45	8,580.0	8,302.5	-569.8	402,769.55	865,619.92	32.1029629	-103.2860743
17,400.0	90.00	359.45	8,580.0	8,402.5	-570.7	402,869.55	865,618.96	32.1032378	-103.2860743
17,500.0	90.00	359.45	8,580.0	8,502.5	-571.7	402,969.54	865,617.99	32.1035126	-103.2860742
17,600.0	90.00	359.45	8,580.0	8,602.5	-572.6	403,069.54	865,617.03	32.1037875	-103.2860742
17,700.0	90.00	359.45	8,580.0	8,702.5	-573.6	403,169.53	865,616.07	32.1040624	-103.2860741
17,800.0	90.00	359.45	8,580.0	8,802.4	-574.6	403,269.53	865,615.11	32.1043372	-103.2860741
17,900.0	90.00	359.45	8,580.0	8,902.4	-575.5	403,369.53	865,614.15	32.1046121	-103.2860741
18,000.0	90.00	359.45	8,580.0	9,002.4	-576.5	403,469.52	865,613.19	32.1048869	-103.2860740
18,100.0	90.00	359.45	8,580.0	9,102.4	-577.4	403,569.52	865,612.23	32.1051618	-103.2860740
18,200.0	90.00	359.45	8,580.0	9,202.4	-578.4	403,669.51	865,611.27	32.1054367	-103.2860740
18,300.0	90.00	359.45	8,580.0	9,302.4	-579.4	403,769.51	865,610.31	32.1057115	-103.2860739
18,400.0	90.00	359.45	8,580.0	9,402.4	-580.3	403,869.50	865,609.35	32.1059864	-103.2860739
18,500.0	90.00	359.45	8,580.0	9,502.4	-581.3	403,969.50	865,608.39	32.1062613	-103.2860739
18,600.0	90.00	359.45	8,580.0	9,602.4	-582.2	404,069.49	865,607.43	32.1065361	-103.2860738
18,700.0	90.00	359.45	8,580.0	9,702.4	-583.2	404,169.49	865,606.46	32.1068110	-103.2860738
18,800.0	90.00	359.45	8,580.0	9,802.4	-584.2	404,269.48	865,605.50	32.1070858	-103.2860738
18,900.0	90.00	359.45	8,580.0	9,902.4	-585.1	404,369.48	865,604.54	32.1073607	-103.2860737
19,000.0	90.00	359.45	8,580.0	10,002.4	-586.1	404,469.47	865,603.58	32.1076356	-103.2860737
19,100.0	90.00	359.45	8,580.0	10,102.4	-587.1	404,569.47	865,602.62	32.1079104	-103.2860737
19,200.0	90.00	359.45	8,580.0	10,202.4	-588.0	404,669.47	865,601.66	32.1081853	-103.2860736
19,303.3	90.00	359.45	8,580.0	10,305.7	-589.0	404,772.79	865,600.67	32.1084693	-103.2860736

TD at 19303.3

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
BHL(RBSC 163H) - plan hits target center - Point	0.00	0.00	8,580.0	10,305.7	-589.0	404,772.79	865,600.67	32.1084693	-103.2860736
FTP(RBSC 163H) - plan hits target center - Point	0.00	0.00	8,580.0	-104.8	-489.0	394,362.28	865,700.70	32.0798533	-103.2860771
LTP(RBSC 163H) - plan hits target center - Point	0.00	0.00	8,580.0	10,255.7	-588.5	404,722.81	865,601.15	32.1083319	-103.2860736



Planning Report - Geographic

Database:	AUS-COMPASS - EDM_15 - 32bit	Local Co-ordinate Reference:	Well RED BUD STATE COM25 36 32 163H
Company:	Ameredev Operating	TVD Reference:	KB=27' @ 3030.0usft
Project:	Lea County, NM (N83-NME)	MD Reference:	KB=27' @ 3030.0usft
Site:	Red Bud_Holly	North Reference:	Grid
Well:	RED BUD STATE COM 25 36 32 163H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP		

Formations						
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)	
1,199.2	1,199.0	Rustler				
1,604.3	1,602.0	Salado				
3,367.1	3,355.0	Tansill				
3,816.6	3,802.0	Capitan				
5,097.8	5,076.0	Lamar				
5,181.3	5,159.0	Bell Canyon				
6,963.3	6,931.0	Brushy Canyon				
8,113.7	8,075.0	Bone Spring Lime				

Plan Annotations					
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates			
		+N/-S (usft)	+E/-W (usft)	Comment	
1,000.0	1,000.0	0.0	0.0	Start Build 2.00	
1,303.3	1,302.7	-12.7	-9.8	Start 6799.4 hold at 1303.3 MD	
3,538.0	3,524.9	-199.2	-154.6	NMNM137470 Entry at 3538.0 MD	
8,102.7	8,064.1	-580.3	-450.4	KOP-Start DLS 12.00 TFO 141.48	
8,795.0	8,570.1	-201.5	-487.4	NMNM137470 Exit at 8795.0 MD	
8,892.3	8,580.0	-104.8	-489.0	LP-Start 10411.0 hold at 8892.3 MD	
19,303.3	8,580.0	10,305.7	-589.0	TD at 19303.3	