

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 351282

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 30-025-52096
4. Property Code 331807	5. Property Name AZALEA 26 36 28 STATE COM	6. Well No. 381H

7. Surface Location

UL - Lot C	Section 28	Township 26S	Range 36E	Lot Idn C	Feet From 230	N/S Line N	Feet From 1426	E/W Line W	County Lea
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8. Proposed Bottom Hole Location

UL - Lot D	Section 33	Township 26S	Range 36E	Lot Idn 4	Feet From 50	N/S Line S	Feet From 990	E/W Line W	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 2913
16. Multiple N	17. Proposed Depth 18606	18. Formation 2nd Bone Spring Carbonate	19. Contractor	20. Spud Date 12/1/2024
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	1832	1436	0
Int1	12.25	10.75	45.5	5062	1274	0
Prod	8.75	5.5	17	18606	5959	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:	OIL CONSERVATION DIVISION	
Printed Name: Electronically filed by Christie Hanna	Approved By: Paul F Kautz	
Title: Regulatory	Title: Geologist	
Email Address: channa@ameredev.com	Approved Date: 10/17/2023	Expiration Date: 10/17/2025
Date: 10/10/2023	Phone: 737-300-4723	Conditions of Approval Attached

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

District Office

☐ **AMENDED REPORT**

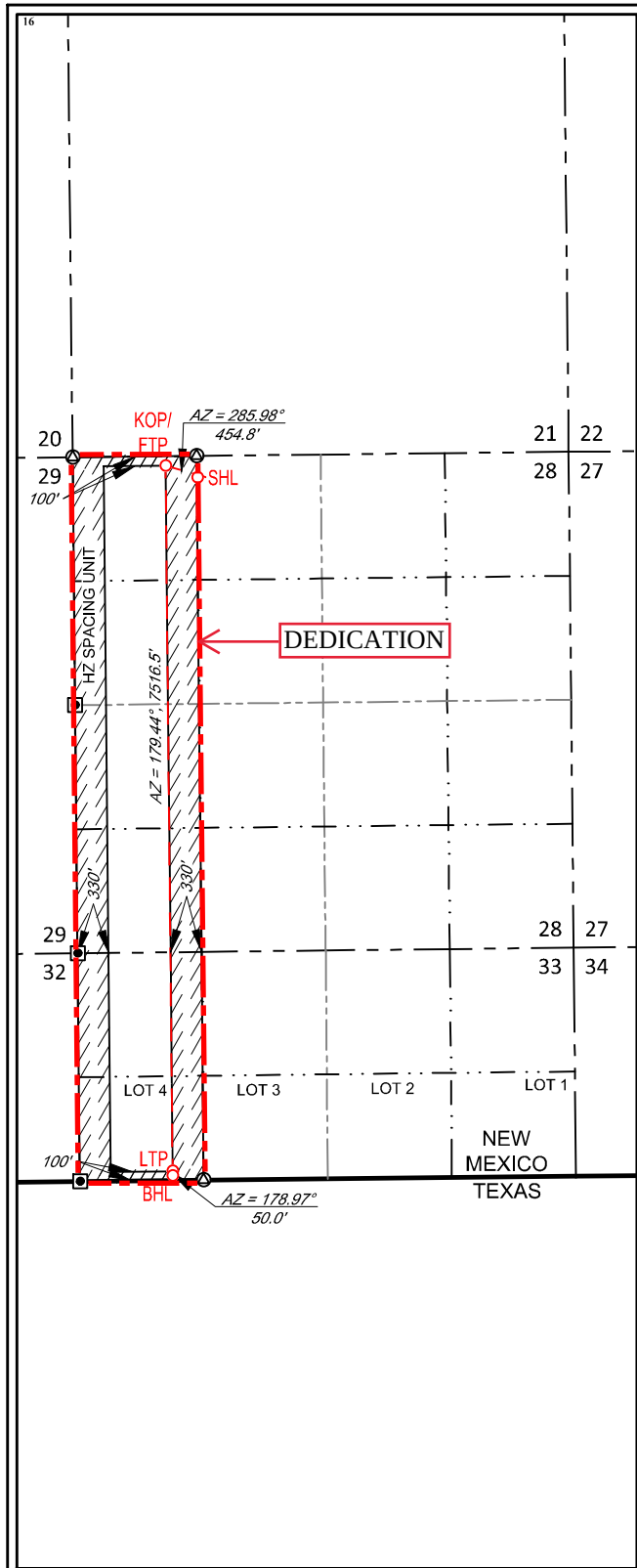
¹ API Number 30-025-	² Pool Code 98150	³ Pool Name WC-025 G-08 S263620C; LWR BONE SPRING
⁴ Property Code 331807	⁵ Property Name AZALEA 26 36 28 STATE COM	
⁷ OGRID No. 372224	⁸ Operator Name AMEREDEV OPERATING, LLC.	⁶ Well Number 381H ⁹ Elevation 2913'

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	28	26-S	36-E	-	230'	NORTH	1426'	WEST	LEA

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
4	33	26-S	36-E	-	50'	SOUTH	990'	WEST	LEA

¹² Dedicated Acres 233.71	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)
230' FNL - SEC. 28
1426' FWL - SEC. 28
X=869655 Y=372948
LAT.: N 32.0208890
LONG.: W 103.2739903

KICK OFF POINT (KOP)/
FIRST TAKE POINT (FTP)
50' FNL - SEC. 28
990' FWL - SEC. 28
X=869218 Y=373073
LAT.: N 32.0212448
LONG.: W 103.2753968

LAST TAKE POINT (LTP)
100' FSL - SEC. 33
990' FWL - SEC. 33
X=869292 Y=365557
LAT.: N 32.0005844
LONG.: W 103.2753943

BOTTOM HOLE LOCATION (BHL)
50' FSL - SEC. 33
990' FWL - SEC. 33
X=869293 Y=365507
LAT.: N 32.0004470
LONG.: W 103.2753943

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.

De Hammorsal 10/2/2023
Signature Date

Floyd Hammond
Printed Name

fhammond@ameredev.com
E-mail Address

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.

06/08/2023

Date of Survey
Signature and Seal of Professional Surveyor



Certificate Number

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Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

Form APD Conditions

Permit 351282

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address: AMEREDEV OPERATING, LLC [372224] 2901 Via Fortuna Austin, TX 78746	API Number: 30-025-52096
	Well: AZALEA 26 36 28 STATE COM #381H

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	If cement does not circulate on any string , a CBL is required for that string of casing.
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

Azalea 26 36 28 State Com 381H											
Second Bone Spring Lower 1.5 Mile Lateral											
County, St: Lea, NM SHL: Section 28 , T26S , R36E 230' FNL, 1426' FWL BHL: Section 33 , T26S , R36E 50' FSL, 990' FWL 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: NMOCDD GL: 2,913' Field: Delaware Rig: H&P 642 KB: 27.0' Elevation: 2,940' E-Mail: drillingengineering@amerdev.com Offsets:						
General Notes		Hole Size		Casing & Cement		Geology		TVD		Mud Weight	
Notify BLM prior to spud, running casing, cementing, and BOP testing		17-1/2"		Lead (100% OH excess)		Conductor		122'		8.4 - 8.6 ppg FW	
Sundry to be sent before spud				1096 sx 12.8 ppg Class C							
				Top of Lead @ 0'							
1500 psi Surface Casing Test Done by Spudder Rig				Tail (100% OH excess)							
				340 sx 14.8 ppg Class C							
				Top of Tail @ 1532'							
				13.375 54.5 J-55 BTC		Rustler		1,731'			
				0 - 1832							
		12-1/4"		1832' MD							
Stage 1 Designed to Circulate Cement to Surface				Stg 1 Lead (50% OH excess)		Salado		2,100'			
DV Tool (Int)				437 sx 11 ppg Class C - Low Portland							
3543				Top of Lead @ 0'							
Casing Test to 1500 psi				Stg 1 Tail (50% OH excess)		Tansill		3,239'		10 ppg Brine	
				177 sx 14.8 ppg Class C		Capitan		3,726'			
				Top of Tail @ 4312'							
				Stg 2 Lead (50% OH excess)		Lamar		4,925'			
				554 sx 12.8 ppg Class C - Low Portland							
				Top of Lead @ 0'							
				Stg 2 Tail (25% OH excess)							
				106 sx 14.8 ppg Class C							
				Top of Tail @ 2943'							
				10.75 45.5 HC L-80 SC BTC							
				0 - 5062							
FIT to 10.5 ppg EMW		8-3/4"		5062' MD		Bell Canyon		5,095'			
		Vertical		5062' TVD							
						Brushy Canyon		7,024'		9.0 - 9.5 ppg Cut Brine	
						Bone Spring Lime		8,010'			
						First Bone Spring		9,554'			
						Second Bone Spring		10,171'			
				KOP							
				10290' MD							
				10240' TVD							
12" DLS curve section		8-3/4"				Lead (50% OH excess)					
Surveys: 45' Curve , 90' Lateral		Curve				1818 sx 10.6 ppg ProLite					
						Top of Lead @ 0'					
						Tail (20% OH excess)					
						4141 sx 14.5 ppg Class H - Premium PozMix					
						Top of Tail @ 8606'					
						5.5 117 USS RYS P-110 Eagle SFH					
						0 - 18606					
						5-1/2" marker jts @ ~10140', 13610' MD					
LTP VS: 7571'											
90° INC, 179.44° AZM											
BHL VS: 7621'											
90° INC, 179.44° AZM											
		8-1/2"		EOC							
		Lateral		11040' MD							
				10717' TVD							
						18606' MD					
						10,717' TVD @ BHL					
						7,621' VS					
						No Casing Test					



Ameredev Operating

Lea County, NM (N83-NME)

Camelia_Azalea

AZALEA 26 36 28 STATE COM 381H

OWB

Plan: PWP

Standard Planning Report - Geographic

20 June, 2023



Planning Report - Geographic

Database:	AUS-COMPASS - EDM_15 - 32bit	Local Co-ordinate Reference:	Well AZALEA STATE COM26-36-28 381H
Company:	Ameredev Operating	TVD Reference:	KB=25' @ 2938.0usft
Project:	Lea County, NM (N83-NME)	MD Reference:	KB=25' @ 2938.0usft
Site:	Camelia_Azalea	North Reference:	Grid
Well:	AZALEA STATE COM 26-36-28 381H	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		Camelia_Azalea			
Site Position:		Northing:	372,956.73 usft	Latitude:	32.0208919
From:	Lat/Long	Easting:	870,464.84 usft	Longitude:	-103.2713773
Position Uncertainty:		0.0 usft	Slot Radius:	13-3/16 "	

Well	AZALEA STATE COM 26-36-28 381H					
Well Position	+N/-S	0.0 usft	Northing:	372,947.72 usft	Latitude:	32.0208890
	+E/-W	0.0 usft	Easting:	869,654.98 usft	Longitude:	-103.2739903
Position Uncertainty		3.0 usft	Wellhead Elevation:	usft	Ground Level:	2,913.0 usft
Grid Convergence:		0.56 °				

Wellbore	OWB				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	6/20/2023	6.15	59.69	47,196.71059689

Design	PWP			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.0
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	179.44

Plan Survey Tool Program	Date	6/20/2023		
Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.0	18,606.3 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	
1,400.0	8.00	323.78	1,398.7	22.5	-16.5	2.00	2.00	0.00	323.78	
6,361.4	8.00	323.78	6,311.8	579.5	-424.5	0.00	0.00	0.00	0.00	
6,761.4	0.00	0.00	6,710.5	602.0	-441.0	2.00	-2.00	0.00	180.00	
10,290.4	0.00	0.00	10,239.5	602.0	-441.0	0.00	0.00	0.00	0.00	
11,040.4	90.00	179.44	10,717.0	124.6	-436.3	12.00	12.00	23.93	179.44	
18,606.3	90.00	179.44	10,717.0	-7,441.0	-362.4	0.00	0.00	0.00	0.00	BHL (ASC 381H)



Planning Report - Geographic

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Company:	Ameredev Operating	TVD Reference:	KB=25' @ 2938.0usft
Project:	Lea County, NM (N83-NME)	MD Reference:	KB=25' @ 2938.0usft
Site:	Camelia_Azalea	North Reference:	Grid
Well:	AZALEA STATE COM 26-36-28 381H	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	372,947.72	869,654.98	32.0208890	-103.2739903
100.0	0.00	0.00	100.0	0.0	0.0	372,947.72	869,654.98	32.0208890	-103.2739903
200.0	0.00	0.00	200.0	0.0	0.0	372,947.72	869,654.98	32.0208890	-103.2739903
300.0	0.00	0.00	300.0	0.0	0.0	372,947.72	869,654.98	32.0208890	-103.2739903
400.0	0.00	0.00	400.0	0.0	0.0	372,947.72	869,654.98	32.0208890	-103.2739903
500.0	0.00	0.00	500.0	0.0	0.0	372,947.72	869,654.98	32.0208890	-103.2739903
600.0	0.00	0.00	600.0	0.0	0.0	372,947.72	869,654.98	32.0208890	-103.2739903
700.0	0.00	0.00	700.0	0.0	0.0	372,947.72	869,654.98	32.0208890	-103.2739903
800.0	0.00	0.00	800.0	0.0	0.0	372,947.72	869,654.98	32.0208890	-103.2739903
900.0	0.00	0.00	900.0	0.0	0.0	372,947.72	869,654.98	32.0208890	-103.2739903
1,000.0	0.00	0.00	1,000.0	0.0	0.0	372,947.72	869,654.98	32.0208890	-103.2739903
Start Build 2.00									
1,100.0	2.00	323.78	1,100.0	1.4	-1.0	372,949.13	869,653.95	32.0208929	-103.2739936
1,200.0	4.00	323.78	1,199.8	5.6	-4.1	372,953.35	869,650.85	32.0209046	-103.2740034
1,300.0	6.00	323.78	1,299.5	12.7	-9.3	372,960.38	869,645.70	32.0209241	-103.2740198
1,400.0	8.00	323.78	1,398.7	22.5	-16.5	372,970.21	869,638.50	32.0209513	-103.2740427
Start 4961.4 hold at 1400.0 MD									
1,500.0	8.00	323.78	1,497.7	33.7	-24.7	372,981.44	869,630.28	32.0209824	-103.2740689
1,600.0	8.00	323.78	1,596.8	44.9	-32.9	372,992.67	869,622.05	32.0210134	-103.2740951
1,700.0	8.00	323.78	1,695.8	56.2	-41.1	373,003.89	869,613.83	32.0210445	-103.2741213
1,800.0	8.00	323.78	1,794.8	67.4	-49.4	373,015.12	869,605.60	32.0210756	-103.2741474
1,812.3	8.00	323.78	1,807.0	68.8	-50.4	373,016.50	869,604.59	32.0210794	-103.2741507
Rustler									
1,900.0	8.00	323.78	1,893.8	78.6	-57.6	373,026.35	869,597.38	32.0211067	-103.2741736
2,000.0	8.00	323.78	1,992.9	89.9	-65.8	373,037.57	869,589.16	32.0211378	-103.2741998
2,100.0	8.00	323.78	2,091.9	101.1	-74.0	373,048.80	869,580.93	32.0211688	-103.2742260
2,200.0	8.00	323.78	2,190.9	112.3	-82.3	373,060.03	869,572.71	32.0211999	-103.2742522
2,200.1	8.00	323.78	2,191.0	112.3	-82.3	373,060.04	869,572.70	32.0211999	-103.2742522
Salado									
2,300.0	8.00	323.78	2,289.9	123.5	-90.5	373,071.26	869,564.48	32.0212310	-103.2742783
2,400.0	8.00	323.78	2,389.0	134.8	-98.7	373,082.48	869,556.26	32.0212621	-103.2743045
2,500.0	8.00	323.78	2,488.0	146.0	-106.9	373,093.71	869,548.03	32.0212932	-103.2743307
2,600.0	8.00	323.78	2,587.0	157.2	-115.2	373,104.94	869,539.81	32.0213242	-103.2743569
2,700.0	8.00	323.78	2,686.1	168.4	-123.4	373,116.16	869,531.58	32.0213553	-103.2743831
2,800.0	8.00	323.78	2,785.1	179.7	-131.6	373,127.39	869,523.36	32.0213864	-103.2744092
2,900.0	8.00	323.78	2,884.1	190.9	-139.8	373,138.62	869,515.13	32.0214175	-103.2744354
2,954.4	8.00	323.78	2,938.0	197.0	-144.3	373,144.73	869,510.66	32.0214344	-103.2744497
Dewey Lake									
3,000.0	8.00	323.78	2,983.1	202.1	-148.1	373,149.85	869,506.91	32.0214486	-103.2744616
3,100.0	8.00	323.78	3,082.2	213.4	-156.3	373,161.07	869,498.69	32.0214796	-103.2744878
3,200.0	8.00	323.78	3,181.2	224.6	-164.5	373,172.30	869,490.46	32.0215107	-103.2745139
3,233.1	8.00	323.78	3,214.0	228.3	-167.2	373,176.02	869,487.74	32.0215210	-103.2745226
Tansill									
3,300.0	8.00	323.78	3,280.2	235.8	-172.7	373,183.53	869,482.24	32.0215418	-103.2745401
3,400.0	8.00	323.78	3,379.2	247.0	-181.0	373,194.75	869,474.01	32.0215729	-103.2745663
3,500.0	8.00	323.78	3,478.3	258.3	-189.2	373,205.98	869,465.79	32.0216040	-103.2745925
3,600.0	8.00	323.78	3,577.3	269.5	-197.4	373,217.21	869,457.56	32.0216350	-103.2746187
3,666.4	8.00	323.78	3,643.0	276.9	-202.9	373,224.66	869,452.11	32.0216557	-103.2746360
Capitan									
3,700.0	8.00	323.78	3,676.3	280.7	-205.6	373,228.44	869,449.34	32.0216661	-103.2746448
3,800.0	8.00	323.78	3,775.3	291.9	-213.9	373,239.66	869,441.11	32.0216972	-103.2746710
3,900.0	8.00	323.78	3,874.4	303.2	-222.1	373,250.89	869,432.89	32.0217283	-103.2746972
4,000.0	8.00	323.78	3,973.4	314.4	-230.3	373,262.12	869,424.66	32.0217594	-103.2747234
4,100.0	8.00	323.78	4,072.4	325.6	-238.5	373,273.34	869,416.44	32.0217904	-103.2747496



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Well:	AZALEA STATE COM 26-36-28 381H	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	8.00	323.78	4,171.5	336.9	-246.8	373,284.57	869,408.22	32.0218215	-103.2747757	
4,300.0	8.00	323.78	4,270.5	348.1	-255.0	373,295.80	869,399.99	32.0218526	-103.2748019	
4,400.0	8.00	323.78	4,369.5	359.3	-263.2	373,307.03	869,391.77	32.0218837	-103.2748281	
4,500.0	8.00	323.78	4,468.5	370.5	-271.4	373,318.25	869,383.54	32.0219148	-103.2748543	
4,600.0	8.00	323.78	4,567.6	381.8	-279.7	373,329.48	869,375.32	32.0219458	-103.2748804	
4,700.0	8.00	323.78	4,666.6	393.0	-287.9	373,340.71	869,367.09	32.0219769	-103.2749066	
4,800.0	8.00	323.78	4,765.6	404.2	-296.1	373,351.93	869,358.87	32.0220080	-103.2749328	
4,900.0	8.00	323.78	4,864.6	415.4	-304.3	373,363.16	869,350.64	32.0220391	-103.2749590	
4,973.1	8.00	323.78	4,937.0	423.6	-310.3	373,371.37	869,344.63	32.0220618	-103.2749781	
Lamar										
5,000.0	8.00	323.78	4,963.7	426.7	-312.6	373,374.39	869,342.42	32.0220702	-103.2749852	
5,100.0	8.00	323.78	5,062.7	437.9	-320.8	373,385.62	869,334.19	32.0221012	-103.2750113	
5,154.8	8.00	323.78	5,117.0	444.1	-325.3	373,391.77	869,329.68	32.0221183	-103.2750257	
Bell Canyon										
5,200.0	8.00	323.78	5,161.7	449.1	-329.0	373,396.84	869,325.97	32.0221323	-103.2750375	
5,300.0	8.00	323.78	5,260.7	460.3	-337.2	373,408.07	869,317.75	32.0221634	-103.2750637	
5,400.0	8.00	323.78	5,359.8	471.6	-345.5	373,419.30	869,309.52	32.0221945	-103.2750899	
5,500.0	8.00	323.78	5,458.8	482.8	-353.7	373,430.52	869,301.30	32.0222255	-103.2751161	
5,600.0	8.00	323.78	5,557.8	494.0	-361.9	373,441.75	869,293.07	32.0222566	-103.2751422	
5,700.0	8.00	323.78	5,656.9	505.3	-370.1	373,452.98	869,284.85	32.0222877	-103.2751684	
5,800.0	8.00	323.78	5,755.9	516.5	-378.4	373,464.21	869,276.62	32.0223188	-103.2751946	
5,900.0	8.00	323.78	5,854.9	527.7	-386.6	373,475.43	869,268.40	32.0223499	-103.2752208	
6,000.0	8.00	323.78	5,953.9	538.9	-394.8	373,486.66	869,260.17	32.0223809	-103.2752469	
6,100.0	8.00	323.78	6,053.0	550.2	-403.0	373,497.89	869,251.95	32.0224120	-103.2752731	
6,200.0	8.00	323.78	6,152.0	561.4	-411.3	373,509.11	869,243.72	32.0224431	-103.2752993	
6,300.0	8.00	323.78	6,251.0	572.6	-419.5	373,520.34	869,235.50	32.0224742	-103.2753255	
6,361.4	8.00	323.78	6,311.8	579.5	-424.5	373,527.23	869,230.45	32.0224933	-103.2753415	
Start Drop -2.00										
6,400.0	7.23	323.78	6,350.1	583.6	-427.5	373,531.36	869,227.43	32.0225047	-103.2753512	
6,500.0	5.23	323.78	6,449.5	592.4	-434.0	373,540.11	869,221.02	32.0225289	-103.2753716	
6,600.0	3.23	323.78	6,549.2	598.3	-438.3	373,546.06	869,216.66	32.0225454	-103.2753854	
6,700.0	1.23	323.78	6,649.1	601.5	-440.6	373,549.19	869,214.37	32.0225540	-103.2753928	
6,761.4	0.00	0.00	6,710.5	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
Start 3529.0 hold at 6761.4 MD										
6,800.0	0.00	0.00	6,749.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
6,900.0	0.00	0.00	6,849.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
7,000.0	0.00	0.00	6,949.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
7,100.0	0.00	0.00	7,049.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
7,143.9	0.00	0.00	7,093.0	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
Brushy Canyon										
7,200.0	0.00	0.00	7,149.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
7,300.0	0.00	0.00	7,249.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
7,400.0	0.00	0.00	7,349.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
7,500.0	0.00	0.00	7,449.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
7,600.0	0.00	0.00	7,549.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
7,700.0	0.00	0.00	7,649.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
7,800.0	0.00	0.00	7,749.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
7,900.0	0.00	0.00	7,849.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
8,000.0	0.00	0.00	7,949.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
8,100.0	0.00	0.00	8,049.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
8,200.0	0.00	0.00	8,149.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
8,201.9	0.00	0.00	8,151.0	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	
Bone Spring Lime										
8,300.0	0.00	0.00	8,249.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940	



Planning Report - Geographic

Database:	AUS-COMPASS - EDM_15 - 32bit	Local Co-ordinate Reference:	Well AZALEA STATE COM26-36-28 381H
Company:	Ameredev Operating	TVD Reference:	KB=25' @ 2938.0usft
Project:	Lea County, NM (N83-NME)	MD Reference:	KB=25' @ 2938.0usft
Site:	Camelia_Azalea	North Reference:	Grid
Well:	AZALEA STATE COM 26-36-28 381H	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
8,400.0	0.00	0.00	8,349.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
8,500.0	0.00	0.00	8,449.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
8,600.0	0.00	0.00	8,549.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
8,700.0	0.00	0.00	8,649.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
8,800.0	0.00	0.00	8,749.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
8,900.0	0.00	0.00	8,849.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
9,000.0	0.00	0.00	8,949.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
9,100.0	0.00	0.00	9,049.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
9,200.0	0.00	0.00	9,149.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
9,300.0	0.00	0.00	9,249.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
9,400.0	0.00	0.00	9,349.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
9,500.0	0.00	0.00	9,449.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
9,600.0	0.00	0.00	9,549.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
9,658.9	0.00	0.00	9,608.0	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
First Bone Spring									
9,700.0	0.00	0.00	9,649.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
9,800.0	0.00	0.00	9,749.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
9,900.0	0.00	0.00	9,849.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
10,000.0	0.00	0.00	9,949.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
10,100.0	0.00	0.00	10,049.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
10,200.0	0.00	0.00	10,149.1	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
10,290.4	0.00	0.00	10,239.5	602.0	-441.0	373,549.72	869,213.98	32.0225555	-103.2753940
KOP-Start DLS 12.00 TFO 179.44									
10,300.0	1.15	179.44	10,249.1	601.9	-441.0	373,549.62	869,213.98	32.0225552	-103.2753940
10,325.0	4.15	179.44	10,274.1	600.7	-441.0	373,548.47	869,213.99	32.0225521	-103.2753940
10,344.0	6.43	179.44	10,293.0	599.0	-441.0	373,546.71	869,214.01	32.0225472	-103.2753940
Second Bone Spring									
10,350.0	7.15	179.44	10,299.0	598.3	-441.0	373,546.00	869,214.01	32.0225453	-103.2753940
10,375.0	10.15	179.44	10,323.7	594.5	-440.9	373,542.24	869,214.05	32.0225350	-103.2753940
10,400.0	13.15	179.44	10,348.2	589.5	-440.9	373,537.19	869,214.10	32.0225211	-103.2753940
10,425.0	16.15	179.44	10,372.3	583.1	-440.8	373,530.87	869,214.16	32.0225037	-103.2753940
10,450.0	19.15	179.44	10,396.2	575.6	-440.7	373,523.29	869,214.24	32.0224829	-103.2753940
10,475.0	22.15	179.44	10,419.6	566.8	-440.7	373,514.47	869,214.32	32.0224586	-103.2753940
10,500.0	25.15	179.44	10,442.5	556.7	-440.6	373,504.44	869,214.42	32.0224311	-103.2753940
10,525.0	28.15	179.44	10,464.8	545.5	-440.4	373,493.23	869,214.53	32.0224002	-103.2753940
10,550.0	31.15	179.44	10,486.5	533.1	-440.3	373,480.86	869,214.65	32.0223662	-103.2753940
10,575.0	34.15	179.44	10,507.6	519.7	-440.2	373,467.38	869,214.78	32.0223292	-103.2753940
10,600.0	37.15	179.44	10,527.9	505.1	-440.1	373,452.81	869,214.93	32.0222891	-103.2753940
10,625.0	40.15	179.44	10,547.4	489.5	-439.9	373,437.19	869,215.08	32.0222462	-103.2753940
10,650.0	43.15	179.44	10,566.1	472.9	-439.7	373,420.58	869,215.24	32.0222005	-103.2753940
10,675.0	46.15	179.44	10,583.9	455.3	-439.6	373,403.01	869,215.41	32.0221522	-103.2753940
10,700.0	49.15	179.44	10,600.7	436.8	-439.4	373,384.54	869,215.59	32.0221015	-103.2753940
10,725.0	52.15	179.44	10,616.5	417.5	-439.2	373,365.21	869,215.78	32.0220483	-103.2753940
10,750.0	55.15	179.44	10,631.4	397.4	-439.0	373,345.07	869,215.98	32.0219930	-103.2753940
10,775.0	58.15	179.44	10,645.1	376.5	-438.8	373,324.19	869,216.18	32.0219356	-103.2753940
10,800.0	61.15	179.44	10,657.7	354.9	-438.6	373,302.62	869,216.39	32.0218763	-103.2753940
10,825.0	64.15	179.44	10,669.2	332.7	-438.4	373,280.42	869,216.61	32.0218153	-103.2753940
10,850.0	67.15	179.44	10,679.5	309.9	-438.1	373,257.65	869,216.83	32.0217527	-103.2753940
10,875.0	70.15	179.44	10,688.6	286.6	-437.9	373,234.36	869,217.06	32.0216887	-103.2753940
10,900.0	73.15	179.44	10,696.5	262.9	-437.7	373,210.64	869,217.29	32.0216234	-103.2753940
10,925.0	76.15	179.44	10,703.1	238.8	-437.4	373,186.53	869,217.53	32.0215572	-103.2753940
10,950.0	79.15	179.44	10,708.4	214.4	-437.2	373,162.12	869,217.77	32.0214901	-103.2753940
10,975.0	82.15	179.44	10,712.5	189.7	-437.0	373,137.45	869,218.01	32.0214223	-103.2753940
11,000.0	85.15	179.44	10,715.3	164.9	-436.7	373,112.61	869,218.25	32.0213540	-103.2753940



Planning Report - Geographic

Database:	AUS-COMPASS - EDM_15 - 32bit	Local Co-ordinate Reference:	Well AZALEA STATE COM26-36-28 381H
Company:	Ameredev Operating	TVD Reference:	KB=25' @ 2938.0usft
Project:	Lea County, NM (N83-NME)	MD Reference:	KB=25' @ 2938.0usft
Site:	Camelia_Azalea	North Reference:	Grid
Well:	AZALEA STATE COM 26-36-28 381H	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	
11,025.0	88.15	179.44	10,716.7	139.9	-436.5	373,087.66	869,218.50	32.0212854	-103.2753940	
11,040.4	90.00	179.44	10,717.0	124.6	-436.3	373,072.28	869,218.65	32.0212431	-103.2753940	
LP-Start 7565.9 hold at 11040.4 MD										
11,100.0	90.00	179.44	10,717.0	64.9	-435.7	373,012.66	869,219.23	32.0210793	-103.2753940	
11,200.0	90.00	179.44	10,717.0	-35.1	-434.8	372,912.67	869,220.21	32.0208044	-103.2753940	
11,300.0	90.00	179.44	10,717.0	-135.0	-433.8	372,812.67	869,221.18	32.0205295	-103.2753940	
11,400.0	90.00	179.44	10,717.0	-235.0	-432.8	372,712.68	869,222.16	32.0202547	-103.2753940	
11,500.0	90.00	179.44	10,717.0	-335.0	-431.8	372,612.68	869,223.14	32.0199798	-103.2753940	
11,600.0	90.00	179.44	10,717.0	-435.0	-430.9	372,512.69	869,224.12	32.0197049	-103.2753940	
11,700.0	90.00	179.44	10,717.0	-535.0	-429.9	372,412.69	869,225.10	32.0194301	-103.2753940	
11,800.0	90.00	179.44	10,717.0	-635.0	-428.9	372,312.70	869,226.07	32.0191552	-103.2753940	
11,900.0	90.00	179.44	10,717.0	-735.0	-427.9	372,212.70	869,227.05	32.0188803	-103.2753941	
12,000.0	90.00	179.44	10,717.0	-835.0	-426.9	372,112.71	869,228.03	32.0186055	-103.2753941	
12,100.0	90.00	179.44	10,717.0	-935.0	-426.0	372,012.71	869,229.01	32.0183306	-103.2753941	
12,200.0	90.00	179.44	10,717.0	-1,035.0	-425.0	371,912.71	869,229.98	32.0180557	-103.2753941	
12,300.0	90.00	179.44	10,717.0	-1,135.0	-424.0	371,812.72	869,230.96	32.0177809	-103.2753941	
12,400.0	90.00	179.44	10,717.0	-1,235.0	-423.0	371,712.72	869,231.94	32.0175060	-103.2753941	
12,500.0	90.00	179.44	10,717.0	-1,335.0	-422.1	371,612.73	869,232.92	32.0172311	-103.2753941	
12,600.0	90.00	179.44	10,717.0	-1,435.0	-421.1	371,512.73	869,233.89	32.0169563	-103.2753941	
12,700.0	90.00	179.44	10,717.0	-1,535.0	-420.1	371,412.74	869,234.87	32.0166814	-103.2753941	
12,800.0	90.00	179.44	10,717.0	-1,635.0	-419.1	371,312.74	869,235.85	32.0164065	-103.2753941	
12,900.0	90.00	179.44	10,717.0	-1,735.0	-418.2	371,212.75	869,236.83	32.0161317	-103.2753941	
13,000.0	90.00	179.44	10,717.0	-1,835.0	-417.2	371,112.75	869,237.81	32.0158568	-103.2753941	
13,100.0	90.00	179.44	10,717.0	-1,935.0	-416.2	371,012.76	869,238.78	32.0155819	-103.2753941	
13,200.0	90.00	179.44	10,717.0	-2,035.0	-415.2	370,912.76	869,239.76	32.0153071	-103.2753941	
13,300.0	90.00	179.44	10,717.0	-2,135.0	-414.2	370,812.77	869,240.74	32.0150322	-103.2753941	
13,400.0	90.00	179.44	10,717.0	-2,234.9	-413.3	370,712.77	869,241.72	32.0147573	-103.2753941	
13,500.0	90.00	179.44	10,717.0	-2,334.9	-412.3	370,612.78	869,242.69	32.0144825	-103.2753941	
13,600.0	90.00	179.44	10,717.0	-2,434.9	-411.3	370,512.78	869,243.67	32.0142076	-103.2753941	
13,700.0	90.00	179.44	10,717.0	-2,534.9	-410.3	370,412.79	869,244.65	32.0139327	-103.2753941	
13,800.0	90.00	179.44	10,717.0	-2,634.9	-409.4	370,312.79	869,245.63	32.0136579	-103.2753941	
13,900.0	90.00	179.44	10,717.0	-2,734.9	-408.4	370,212.80	869,246.60	32.0133830	-103.2753941	
14,000.0	90.00	179.44	10,717.0	-2,834.9	-407.4	370,112.80	869,247.58	32.0131081	-103.2753941	
14,100.0	90.00	179.44	10,717.0	-2,934.9	-406.4	370,012.81	869,248.56	32.0128333	-103.2753941	
14,200.0	90.00	179.44	10,717.0	-3,034.9	-405.4	369,912.81	869,249.54	32.0125584	-103.2753941	
14,300.0	90.00	179.44	10,717.0	-3,134.9	-404.5	369,812.82	869,250.51	32.0122835	-103.2753942	
14,400.0	90.00	179.44	10,717.0	-3,234.9	-403.5	369,712.82	869,251.49	32.0120087	-103.2753942	
14,500.0	90.00	179.44	10,717.0	-3,334.9	-402.5	369,612.82	869,252.47	32.0117338	-103.2753942	
14,600.0	90.00	179.44	10,717.0	-3,434.9	-401.5	369,512.83	869,253.45	32.0114589	-103.2753942	
14,700.0	90.00	179.44	10,717.0	-3,534.9	-400.6	369,412.83	869,254.43	32.0111841	-103.2753942	
14,800.0	90.00	179.44	10,717.0	-3,634.9	-399.6	369,312.84	869,255.40	32.0109092	-103.2753942	
14,900.0	90.00	179.44	10,717.0	-3,734.9	-398.6	369,212.84	869,256.38	32.0106343	-103.2753942	
15,000.0	90.00	179.44	10,717.0	-3,834.9	-397.6	369,112.85	869,257.36	32.0103595	-103.2753942	
15,100.0	90.00	179.44	10,717.0	-3,934.9	-396.6	369,012.85	869,258.34	32.0100846	-103.2753942	
15,200.0	90.00	179.44	10,717.0	-4,034.9	-395.7	368,912.86	869,259.31	32.0098098	-103.2753942	
15,300.0	90.00	179.44	10,717.0	-4,134.9	-394.7	368,812.86	869,260.29	32.0095349	-103.2753942	
15,400.0	90.00	179.44	10,717.0	-4,234.9	-393.7	368,712.87	869,261.27	32.0092600	-103.2753942	
15,500.0	90.00	179.44	10,717.0	-4,334.8	-392.7	368,612.87	869,262.25	32.0089852	-103.2753942	
15,600.0	90.00	179.44	10,717.0	-4,434.8	-391.8	368,512.88	869,263.22	32.0087103	-103.2753942	
15,700.0	90.00	179.44	10,717.0	-4,534.8	-390.8	368,412.88	869,264.20	32.0084354	-103.2753942	
15,800.0	90.00	179.44	10,717.0	-4,634.8	-389.8	368,312.89	869,265.18	32.0081606	-103.2753942	
15,900.0	90.00	179.44	10,717.0	-4,734.8	-388.8	368,212.89	869,266.16	32.0078857	-103.2753942	
16,000.0	90.00	179.44	10,717.0	-4,834.8	-387.8	368,112.90	869,267.14	32.0076108	-103.2753942	
16,100.0	90.00	179.44	10,717.0	-4,934.8	-386.9	368,012.90	869,268.11	32.0073360	-103.2753942	



Planning Report - Geographic

Database:	AUS-COMPASS - EDM_15 - 32bit	Local Co-ordinate Reference:	Well AZALEA STATE COM26-36-28 381H
Company:	Ameredev Operating	TVD Reference:	KB=25' @ 2938.0usft
Project:	Lea County, NM (N83-NME)	MD Reference:	KB=25' @ 2938.0usft
Site:	Camelia_Azalea	North Reference:	Grid
Well:	AZALEA STATE COM 26-36-28 381H	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	
16,200.0	90.00	179.44	10,717.0	-5,034.8	-385.9	367,912.91	869,269.09	32.0070611	-103.2753942	
16,300.0	90.00	179.44	10,717.0	-5,134.8	-384.9	367,812.91	869,270.07	32.0067862	-103.2753942	
16,400.0	90.00	179.44	10,717.0	-5,234.8	-383.9	367,712.92	869,271.05	32.0065114	-103.2753942	
16,500.0	90.00	179.44	10,717.0	-5,334.8	-383.0	367,612.92	869,272.02	32.0062365	-103.2753942	
16,600.0	90.00	179.44	10,717.0	-5,434.8	-382.0	367,512.93	869,273.00	32.0059616	-103.2753942	
16,700.0	90.00	179.44	10,717.0	-5,534.8	-381.0	367,412.93	869,273.98	32.0056868	-103.2753942	
16,800.0	90.00	179.44	10,717.0	-5,634.8	-380.0	367,312.93	869,274.96	32.0054119	-103.2753942	
16,900.0	90.00	179.44	10,717.0	-5,734.8	-379.0	367,212.94	869,275.93	32.0051370	-103.2753942	
17,000.0	90.00	179.44	10,717.0	-5,834.8	-378.1	367,112.94	869,276.91	32.0048622	-103.2753942	
17,100.0	90.00	179.44	10,717.0	-5,934.8	-377.1	367,012.95	869,277.89	32.0045873	-103.2753942	
17,200.0	90.00	179.44	10,717.0	-6,034.8	-376.1	366,912.95	869,278.87	32.0043124	-103.2753943	
17,300.0	90.00	179.44	10,717.0	-6,134.8	-375.1	366,812.96	869,279.85	32.0040376	-103.2753943	
17,400.0	90.00	179.44	10,717.0	-6,234.8	-374.2	366,712.96	869,280.82	32.0037627	-103.2753943	
17,500.0	90.00	179.44	10,717.0	-6,334.8	-373.2	366,612.97	869,281.80	32.0034878	-103.2753943	
17,600.0	90.00	179.44	10,717.0	-6,434.7	-372.2	366,512.97	869,282.78	32.0032130	-103.2753943	
17,700.0	90.00	179.44	10,717.0	-6,534.7	-371.2	366,412.98	869,283.76	32.0029381	-103.2753943	
17,800.0	90.00	179.44	10,717.0	-6,634.7	-370.2	366,312.98	869,284.73	32.0026632	-103.2753943	
17,900.0	90.00	179.44	10,717.0	-6,734.7	-369.3	366,212.99	869,285.71	32.0023884	-103.2753943	
18,000.0	90.00	179.44	10,717.0	-6,834.7	-368.3	366,112.99	869,286.69	32.0021135	-103.2753943	
18,100.0	90.00	179.44	10,717.0	-6,934.7	-367.3	366,013.00	869,287.67	32.0018386	-103.2753943	
18,200.0	90.00	179.44	10,717.0	-7,034.7	-366.3	365,913.00	869,288.64	32.0015638	-103.2753943	
18,300.0	90.00	179.44	10,717.0	-7,134.7	-365.4	365,813.01	869,289.62	32.0012889	-103.2753943	
18,400.0	90.00	179.44	10,717.0	-7,234.7	-364.4	365,713.01	869,290.60	32.0010140	-103.2753943	
18,500.0	90.00	179.44	10,717.0	-7,334.7	-363.4	365,613.02	869,291.58	32.0007392	-103.2753943	
18,606.3	90.00	179.44	10,717.0	-7,441.0	-362.4	365,506.74	869,292.62	32.0004470	-103.2753943	
TD at 18606.3										

Design Targets										
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
FTP (ASC 381H) - hit/miss target - Shape - plan misses target center by 0.9usft at 11039.8usft MD (10717.0 TVD, 125.2 N, -436.3 E) - Point	0.00	0.00	10,717.0	125.2	-437.2	373,072.89	869,217.78	32.0212448	-103.2753968	
LTP (ASC 381H) - plan hits target center - Point	0.00	0.00	10,717.0	-7,391.0	-362.9	365,556.72	869,292.13	32.0005844	-103.2753943	
BHL (ASC 381H) - plan hits target center - Point	0.00	0.00	10,717.0	-7,441.0	-362.4	365,506.74	869,292.62	32.0004470	-103.2753943	



Planning Report - Geographic

Database:	AUS-COMPASS - EDM_15 - 32bit	Local Co-ordinate Reference:	Well AZALEA STATE COM26-36-28 381H
Company:	Ameredev Operating	TVD Reference:	KB=25' @ 2938.0usft
Project:	Lea County, NM (N83-NME)	MD Reference:	KB=25' @ 2938.0usft
Site:	Camelia_Azalea	North Reference:	Grid
Well:	AZALEA STATE COM 26-36-28 381H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OWB		
Design:	PWP		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
1,812.3	1,807.0	Rustler			
2,200.1	2,191.0	Salado			
2,954.4	2,938.0	Dewey Lake			
3,233.1	3,214.0	Tansill			
3,666.4	3,643.0	Capitan			
4,973.1	4,937.0	Lamar			
5,154.8	5,117.0	Bell Canyon			
7,143.9	7,093.0	Brushy Canyon			
8,201.9	8,151.0	Bone Spring Lime			
9,658.9	9,608.0	First Bone Spring			
10,344.0	10,293.0	Second Bone Spring			

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,000.0	1,000.0	0.0	0.0	Start Build 2.00
1,400.0	1,398.7	22.5	-16.5	Start 4961.4 hold at 1400.0 MD
6,361.4	6,311.8	579.5	-424.5	Start Drop -2.00
6,761.4	6,710.5	602.0	-441.0	Start 3529.0 hold at 6761.4 MD
10,290.4	10,239.5	602.0	-441.0	KOP-Start DLS 12.00 TFO 179.44
11,040.4	10,717.0	124.6	-436.3	LP-Start 7565.9 hold at 11040.4 MD
18,606.3	10,717.0	-7,441.0	-362.4	TD at 18606.3



H₂S Drilling Operation Plan

1. **All Company and Contract personnel admitted on location must be trained by a qualified H₂S safety instructor to the following:**
 - a. Characteristics of H₂S
 - b. Physical effects and hazards
 - c. Principal and operation of H₂S detectors, warning system and briefing areas
 - d. Evacuation procedure, routes and first aid
 - e. Proper use of safety equipment and life support systems
 - f. Essential personnel meeting Medical Evaluation criteria will receive additional training on the proper use of 30 minute pressure demand air packs.
2. **Briefing Area:**
 - a. Two perpendicular areas will be designated by signs and readily accessible.
 - b. Upon location entry there will be a designated area to establish all safety compliance criteria (1.) has been met.
3. **H₂S Detection and Alarm Systems:**
 - a. H₂S sensors/detectors shall be located on the drilling rig floor, in the base of the sub structure/cellar area, and on the mud pits in the shale shaker area. Additional H₂S detectors may be placed as deemed necessary. All detectors will be set to initiate visual alarm at 10 ppm and visual with audible at 14 ppm and all equipment will be calibrated every 30 days or as needed.
 - b. An audio alarm will be installed on the derrick floor and in the top doghouse.
4. **Protective Equipment for Essential Personnel:**
 - a. **Breathing Apparatus:**
 - i. Rescue Packs (SCBA) - 1 Unit shall be placed at each briefing area.
 - ii. Two (SCBA) Units will be stored in safety trailer on location.
 - iii. Work/Escapes packs - 1 Unit will be available on rig floor in doghouse for emergency evacuation for driller.
 - b. **Auxiliary Rescue Equipment:**
 - i. Stretcher
 - ii. 2 - OSHA full body harnesses
 - iii. 100 ft. 5/8" OSHA approved rope
 - iv. 1 - 20# class ABC fire extinguisher
5. **Windsock and/or Wind Streamers:**
 - a. Windsock at mud pit area should be high enough to be visible.
 - b. Windsock on the rig floor should be high enough to be visible.
6. **Communication:**
 - a. While working under mask scripting boards will be used for communication where applicable.
 - b. Hand signals will be used when script boards are not applicable.



H₂S Drilling Operation Plan

- c. Two way radios will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at Drilling Foreman's Office.
- 7. **Drill Stem Testing:** - No Planned DST at this time.
- 8. **Mud program:**
 - a. If H₂S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H₂S scavengers if necessary.
- 9. **Metallurgy:**
 - a. All drill strings, casing, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H₂S service.
 - b. Drilling Contractor supervisor will be required to be familiar with the effect H₂S has on tubular goods and other mechanical equipment provided through contractor.



H₂S Contingency Plan

Emergency Procedures

In the event of a release of H₂S, the first responder(s) must:

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H₂S monitors and air packs in order to control the release.
- Use the “buddy system” to ensure no injuries occur during the response.
- Take precautions to avoid personal injury during this operation.
- Contact Operator and/or local officials the aid in operation. See list of phone numbers attached.
- Have received training in the:
 - Detection of H₂S and
 - Measures for protection against the gas,
 - Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas.

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air=1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air=1	2 ppm	N/A	1000 ppm

Contacting Authorities

Ameredev Operating LLC personnel must liaise with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available including direction to site. The following call list of essential and potential responders has been prepared for use during a release. Ameredev Operating LLC’s response must be in coordination with the State of New Mexico’s “Hazardous Materials Emergency Response Plan” (HMER)



H₂S Contingency Plan

Ameredev Operating LLC – Emergency Phone 737-300-4799			
Key Personnel:			
Name	Title	Office	Mobile
Floyd Hammond	Chief Operating officer	737-300-4724	512-783-6810
Shane McNeely	Operations Engineer	737-300-4729	432-413-8593
Dayeed Khan	Construction Manager	737-300-4733	281-928-4692

<u>Artesia</u>	
Ambulance	911
State Police	575-748-9718
City Police	575-746-5000
Sheriff's Office	575-887-7551
Fire Department	575-746-5051
Artesia General Hospital	575-748-3333
New Mexico Oil Conservation Division	575-626-0830
<u>Carlsbad</u>	
Ambulance	911
State Police	575-885-3138
City Police	575-885-2111
Sheriff's Office	575-887-7551
Fire Department	575-885-3125
Carlsbad Medical Center	575-887-4100
Hobbs Hospital	575-492-5000
BLM Hobbs Field Office	575-689-5981
BLM Carlsbad Field Office	575-361-2822
New Mexico Oil Conservation Division	575-626-0830
<u>Santa Fe</u>	
Department of Homeland Security and Emergency Management (Santa Fe)	505-476-9600
New Mexico State Emergency Operations Center	505-476-9635
<u>National</u>	
National Emergency Response Center (Washington, D.C.)	800-424-8802
<u>Medical</u>	
Aerocare - R3, Box 49F; Lubbock, TX	800-627-2376
Med Flight Air Amb - 2301 Yale Blvd S.E., #D3; Albuquerque, NM	505-842-4433
Lifeguard Air Emergency Services- 2505 Clark Carr Loop S.E.; Albuquerque, NM	505-243-2343

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil 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:** _____ 06/21/2023 _____

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
Azalea 26 36 28 State Com 281H	30025-		250' FNL & 385' FWL	680	3,412	2,610
Azalea 26 36 28 State Com 282H	30025-		230' FNL & 1726' FWL	8	39	14
Azalea 26 36 28 State Com 381H	30025-		230' FNL & 1426' FEL	680	3,412	2,610
Azalea 26 36 28 State Com 382H	30025-		210' FNL & 2111' FWL	74	373	132
Azalea 26 36 28 State Com 384H	30025-		230' FNL & 775' FEL	680	3,412	2,610

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
Azalea 26 36 28 State Com 281H	30025-	12/01/2024	01/15/2025	02/15/2025	03/01/2025	03/04/2025
Azalea 26 36 28 State Com 282H	30025-	12/01/2024	01/15/2025	02/15/2025	03/01/2025	03/04/2025
Azalea 26 36 28 State Com 381H	30025-	12/01/2024	01/15/2025	02/15/2025	03/01/2025	03/04/2025
Azalea 26 36 28 State Com 382H	30025-	12/01/2024	01/15/2025	02/15/2025	03/01/2025	03/04/2025
Azalea 26 36 28 State Com 384H	30025-	12/01/2024	01/15/2025	02/15/2025	03/01/2025	03/04/2025

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@ameredev.com
Date: 06/21/2023
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