<u>District I</u> 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 352441

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD	AZONE
1. Operator Name and Address	2. OGRID Number
AMEREDEV OPERATING LLC	372224

2901 Via Fortuna 3. API Number 30-025-52150 Austin, TX 78746 4. Property Code 5. Property Name 6. Well No. 331807 AZALEA 26 36 28 STATE COM 074H

7 Surface Location

-		THE WATER OF THE PARTY OF THE P								
	UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
	Α	28	26S	36E	Α	230	N	735	E	Lea

8. Proposed Bottom Hole Location

I	UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
	Н	33	26S	36E	1	50	S	330	E	Lea

9. Pool Information

WC-025 G-08 S263620C;LWR BONE SPRIN 98150

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation	
New Well	OIL		State	2910	
16. Multiple	17. Proposed Depth	18. Formation 19. Contractor		20. Spud Date	
N	17485	1st Bone Spring Sand		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

Туре	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1743	1371	0
Int1	12.25	10.75	45.5	5100	1335	0
Prod	8.75	5.5	17	17485	5725	0

**Casing/Cement Program: Additional Comments** 

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer				
Double Ram	5000	5000	TBD				

knowledge and b	have complied with 19.15.14.9 (A) N	true and complete to the best of my  IMAC ⊠ and/or 19.15.14.9 (B) NMAC		OIL CONSERVATI	ION DIVISION
Printed Name:	Printed Name: Electronically filed by Christie Hanna			Paul F Kautz	
Title:	Fitle: Regulatory		Title:	Geologist	
Email Address: channa@ameredev.com		Approved Date:	10/24/2023	Expiration Date: 10/24/2025	
Date: 10/20/2023 Phone: 737-300-4723		Conditions of Appr	oval Attached		

<u>District I</u> 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-102 August 1, 2011

Permit 352441

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

1. API Number	2. Pool Code	3. Pool Name
30-025-52150	98150	WC-025 G-08 S263620C;LWR BONE SPRIN
4. Property Code	5. Property Name	6. Well No.
331807	AZALEA 26 36 28 STATE COM	074H
7. OGRID No.	8. Operator Name	9. Elevation
372224	AMEREDEV OPERATING LLC	2910

Surface	

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
Α	28	26S	36E	Α	230	N	735	E	Lea

#### 11. Bottom Hole Location If Different From Surface

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
Н	33	26S	36E	1	50	S	330	E	Lea
12. Dedicated Acre	s		13. Joint or Infill		14. Consolidation C	ode		15. Order No.	
233.71					Commu	nitization			

#### 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

#### **OPERATOR 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(s) 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. Christie Hanna E-Signed By: Regulatory Title: 10/20/2023 Date SURVEYOR 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 and correct to the best of my belief. ANGEL BAEZA Surveyed By: 3/15/2018 Date of Survey: 25116 Certificate Number:

\_. . . . .

<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

<u>District II</u> 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

<u>District III</u> 1000 Rio Brazos Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

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

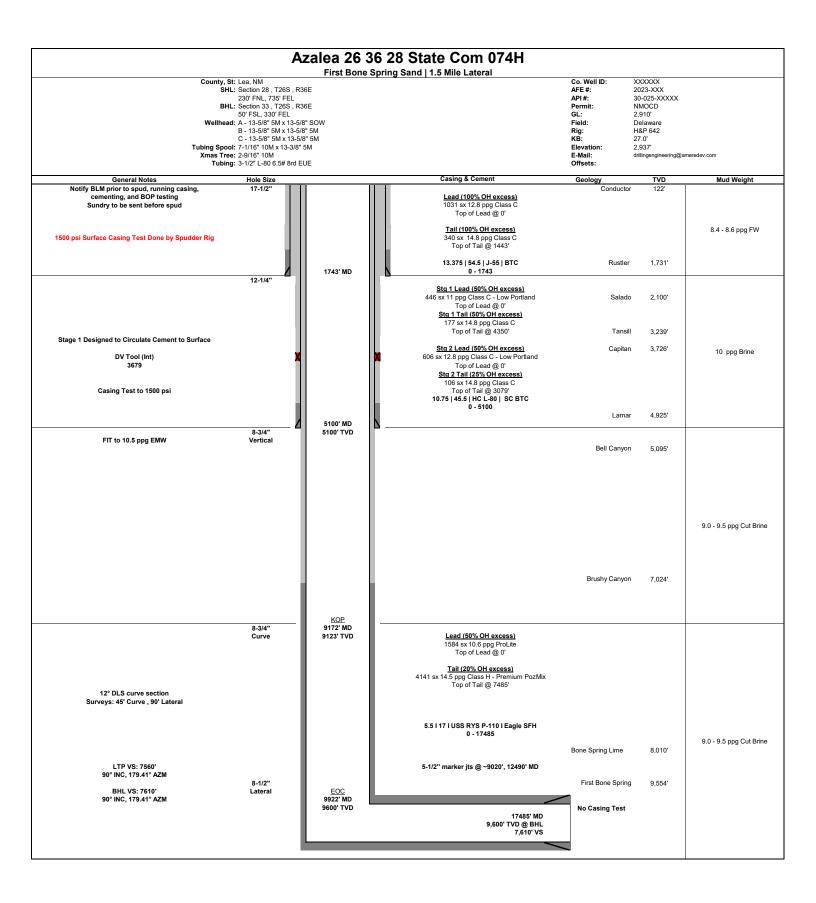
Form APD Conditions

Permit 352441

#### PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
AMEREDEV OPERATING, LLC [372224]	30-025-52150
2901 Via Fortuna	Well:
Austin, TX 78746	AZALEA 26 36 28 STATE COM #074H

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





## **Ameredev Operating**

Lea County, NM (N83-NME)
Camelia\_Azalea
AZALEA 26 36 28 STATE COM 074H

**OWB** 

Plan: PWP

## **Standard Planning Report - Geographic**

19 June, 2023



Database: AUS-COMPASS - EDM\_15 - 32bit

Company: Ameredev Operating
Project: Lea County, NM (N83-NME)

Site: Camelia\_Azalea

Well: AZALEA STATE COM 26-36-28 074H

Wellbore: OWB Design: PWP

Map Zone:

**Local Co-ordinate Reference:** 

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well AZALEA STATE COM26-36-28 074H

KB=25' @ 2935.0usft KB=25' @ 2935.0usft

Grid

Minimum Curvature

Project Lea County, NM (N83-NME)

Map System: US State Plane 1983 Geo Datum: North American Datum 1983

New Mexico Eastern Zone

System Datum: Mean Sea Level

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 074H

 Well Position
 +N/-S
 0.0 usft
 Northing:
 372,982.10 usft
 Latitude:
 32.0208989

 +E/-W
 0.0 usft
 Easting:
 872,778.87 usft
 Longitude:
 -103.2639112

 Position Uncertainty
 3.0 usft
 Wellhead Elevation:
 usft
 Ground Level:
 2,910.0 usft

Grid Convergence: 0.57 °

Wellbore OWB

 Magnetics
 Model Name
 Sample Date
 Declination (°)
 Dip Angle (°)
 Field Strength (nT)

 IGRF2020
 6/19/2023
 6.15
 59.69
 47.198.00403798

**Design** PWP

Audit Notes:

Version:Phase:PROTOTYPETie On Depth:0.0

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

 0.0
 0.0
 0.0
 179.41

Plan Survey Tool Program Date 6/19/2023

Depth From Depth To

(usft) (usft) Survey (Wellbore) Tool Name Remarks

1 0.0 17,484.9 PWP (OWB) MWD

OWSG MWD - Standard

**Plan Sections** Measured Vertical Dogleg Build Turn Depth Inclination Depth +N/-S +E/-W Rate **Azimuth** Rate Rate **TFO** (usft) (usft) (°/100usft) (°/100usft) (°/100usft) (usft) (usft) (°) (°) **Target** (°) 0.0 0.00 0.00 0.0 0.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00 0.0 0.00 0.00 0.00 0.00 1,500.0 1,500.0 0.0 1,900.0 8.00 33.12 1,898.7 23.3 15.2 2.00 2.00 0.00 33.12 6,732.8 8.00 33.12 6,684.5 586.7 382.8 0.00 0.00 0.00 0.00 0.00 0.00 7.083.2 610.0 398.0 2.00 -2.00 0.00 180.00 7.132.8 0.00 0.00 9,122.5 610.0 398.0 0.00 0.00 0.00 0.00 9,172.1 132.6 402.9 12.00 12.00 23.92 9,922.1 90.00 179.41 9,600.0 179.41 9,600.0 480.6 0.00 0.00 0.00 0.00 BHL (ASC 074H) 17,485.4 90.00 179.41 -7,430.3



Database: AUS-COMPASS - EDM\_15 - 32bit

Company: Ameredev Operating
Project: Lea County, NM (N83-NME)

Site: Camelia\_Azalea

Well: AZALEA STATE COM 26-36-28 074H

Wellbore: OWB Design: PWP Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well AZALEA STATE COM26-36-28 074H

KB=25' @ 2935.0usft KB=25' @ 2935.0usft

Grid

Planned Surv	еу								
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	372,982.10	872,778.87	32.0208989	-103.2639112
100.0	0.00	0.00	100.0	0.0	0.0	372,982.10	872,778.87	32.0208989	-103.2639112
200.0		0.00	200.0	0.0	0.0	372,982.10	872,778.87	32.0208989	-103.2639112
300.0		0.00	300.0	0.0	0.0	372,982.10	872,778.87	32.0208989	-103.2639112
400.0		0.00	400.0	0.0	0.0	372,982.10	872,778.87	32.0208989	-103.2639112
500.0		0.00	500.0	0.0	0.0	372,982.10	872,778.87	32.0208989	-103.2639112
600.0		0.00	600.0	0.0	0.0	372,982.10	872,778.87	32.0208989	-103.2639112
700.0	0.00	0.00	700.0	0.0	0.0	372,982.10	872,778.87	32.0208989	-103.2639112
800.0	0.00	0.00	800.0	0.0	0.0	372,982.10	872,778.87	32.0208989	-103.2639112
900.0	0.00	0.00	900.0	0.0	0.0	372,982.10	872,778.87	32.0208989	-103.2639112
1,000.0	0.00	0.00	1,000.0	0.0	0.0	372,982.10	872,778.87	32.0208989	-103.2639112
1,100.0	0.00	0.00	1,100.0	0.0	0.0	372,982.10	872,778.87	32.0208989	-103.2639112
1,200.0	0.00	0.00	1,200.0	0.0	0.0	372,982.10	872,778.87	32.0208989	-103.2639112
1,300.0	0.00	0.00	1,300.0	0.0	0.0	372,982.10	872,778.87	32.0208989	-103.2639112
1,400.0	0.00	0.00	1,400.0	0.0	0.0	372,982.10	872,778.87	32.0208989	-103.2639112
1,500.0	0.00	0.00	1,500.0	0.0	0.0	372,982.10	872,778.87	32.0208989	-103.2639112
Start B	uild 2.00								
1,600.0	2.00	33.12	1,600.0	1.5	1.0	372,983.56	872,779.83	32.0209029	-103.2639081
1,700.0	4.00	33.12	1,699.8	5.8	3.8	372,987.94	872,782.69	32.0209149	-103.2638987
1,800.0	6.00	33.12	1,799.5	13.1	8.6	372,995.24	872,787.45	32.0209348	-103.2638831
1,900.0	8.00	33.12	1,898.7	23.3	15.2	373,005.45	872,794.11	32.0209627	-103.2638613
Start 48	332.8 hold at	t 1900.0 MD							
2,000.0	8.00	33.12	1,997.7	35.0	22.8	373,017.10	872,801.71	32.0209945	-103.2638364
2,100.0	8.00	33.12	2,096.8	46.7	30.4	373,028.76	872,809.32	32.0210263	-103.2638115
2,200.0	8.00	33.12	2,195.8	58.3	38.0	373,040.41	872,816.92	32.0210582	-103.2637866
2,300.0	8.00	33.12	2,294.8	70.0	45.7	373,052.07	872,824.53	32.0210900	-103.2637617
2,400.0		33.12	2,393.8	81.6	53.3	373,063.73	872,832.13	32.0211218	-103.2637368
2,500.0		33.12	2,492.9	93.3	60.9	373,075.38	872,839.74	32.0211537	-103.2637119
2,600.0		33.12	2,591.9	104.9	68.5	373,087.04	872,847.34	32.0211855	-103.2636870
2,700.0		33.12	2,690.9	116.6	76.1	373,098.69	872,854.95	32.0212173	-103.2636620
2,800.0		33.12	2,789.9	128.3	83.7	373,110.35	872,862.55	32.0212491	-103.2636371
2,900.0		33.12	2,889.0	139.9	91.3	373,122.00	872,870.16	32.0212810	-103.2636122
2,946.5	8.00	33.12	2,935.0	145.3	94.8	373,127.42	872,873.69	32.0212958	-103.2636007
Dewey									
3,000.0		33.12	2,988.0	151.6	98.9	373,133.66	872,877.76	32.0213128	-103.2635873
3,100.0		33.12	3,087.0	163.2	106.5	373,145.32	872,885.37	32.0213446	-103.2635624
3,200.0		33.12	3,186.1	174.9	114.1	373,156.97	872,892.97	32.0213765	-103.2635375
3,300.0		33.12	3,285.1	186.5	121.7	373,168.63	872,900.58	32.0214083	-103.2635126
3,400.0		33.12	3,384.1	198.2	129.3	373,180.28	872,908.18	32.0214401	-103.2634877
3,500.0		33.12	3,483.1	209.8	136.9	373,191.94	872,915.79	32.0214720	-103.2634628
3,600.0		33.12	3,582.2	221.5	144.5	373,203.59	872,923.39	32.0215038	-103.2634379
3,700.0		33.12	3,681.2	233.2	152.1	373,215.25	872,931.00	32.0215356	-103.2634130
3,800.0		33.12	3,780.2	244.8	159.7	373,226.91	872,938.60	32.0215674	-103.2633881
3,900.0		33.12	3,879.2	256.5	167.3	373,238.56	872,946.21	32.0215993	-103.2633632
4,000.0		33.12	3,978.3	268.1	174.9 182.5	373,250.22	872,953.81	32.0216311	-103.2633383
4,100.0		33.12	4,077.3	279.8	182.5	373,261.87 373,273.53	872,961.41	32.0216629	-103.2633134
4,200.0		33.12	4,176.3	291.4 303.1	190.1 197.8	373,273.53 373,285.18	872,969.02 872,976.62	32.0216948 32.0217266	-103.2632884
4,300.0 4,400.0		33.12 33.12	4,275.3 4,374.4	303.1 314.7	205.4	373,296.84	872,984.23	32.0217284	-103.2632635 -103.2632386
4,400.0		33.12	4,374.4 4,473.4	314.7	213.0	373,308.50	872,991.83	32.0217902	-103.2632137
4,600.0		33.12	4,473.4	338.1	220.6	373,320.15	872,999.44	32.0217902	-103.2632137
4,600.0		33.12	4,653.0	347.5	226.8	373,329.64	873,005.63	32.0218480	-103.2631686
Rustler		55.12	7,000.0	J-1.J	220.0	010,020.04	070,000.00	02.0210400	-100.2001000
4,700.0		33.12	4,671.5	349.7	228.2	373,331.81	873,007.04	32.0218539	-103.2631639
7,700.0	0.00	55.12	₹,07 1.0	070.1	220.2	070,001.01	070,007.04	02.02 10000	100.2001009



Database: AUS-COMPASS - EDM\_15 - 32bit

Company: Ameredev Operating
Project: Lea County, NM (N83-NME)

Site: Camelia\_Azalea

Well: AZALEA STATE COM 26-36-28 074H

Wellbore: OWB Design: PWP Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well AZALEA STATE COM26-36-28 074H

KB=25' @ 2935.0usft KB=25' @ 2935.0usft

Grid

Planned Surv	<b>r</b> ey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
4,800.0		33.12	4,770.5	361.4	235.8	373,343.46	873,014.65	32.0218857	-103.2631390
4,900.0		33.12	4,869.5	373.0	243.4	373,355.12	873,022.25	32.0219176	-103.2631141
5,000.0 5,100.0		33.12 33.12	4,968.5 5,067.6	384.7 396.3	251.0 258.6	373,366.78 373,378.43	873,029.86 873,037.46	32.0219494 32.0219812	-103.2630892 -103.2630643
5,120.6		33.12	5,088.0	398.7	260.2	373,380.84	873,039.03	32.0219878	-103.2630591
Salado		002	0,000.0	000		0.0,000.0.	0.0,000.00	02.02.00.0	.00.20000.
5,200.0		33.12	5,166.6	408.0	266.2	373,390.09	873,045.07	32.0220130	-103.2630394
5,300.0		33.12	5,265.6	419.6	273.8	373,401.74	873,052.67	32.0220449	-103.2630145
5,400.0	8.00	33.12	5,364.6	431.3	281.4	373,413.40	873,060.28	32.0220767	-103.2629896
5,500.0		33.12	5,463.7	443.0	289.0	373,425.05	873,067.88	32.0221085	-103.2629647
5,600.0		33.12	5,562.7	454.6	296.6	373,436.71	873,075.49	32.0221404	-103.2629398
5,700.0		33.12	5,661.7	466.3	304.2	373,448.37	873,083.09	32.0221722	-103.2629148
5,800.0		33.12	5,760.7	477.9	311.8	373,460.02	873,090.70 873.098.30	32.0222040	-103.2628899
5,900.0 6,000.0		33.12 33.12	5,859.8 5,958.8	489.6 501.2	319.4 327.0	373,471.68 373,483.33	873,098.30 873,105.91	32.0222358 32.0222677	-103.2628650 -103.2628401
6,100.0		33.12	6,057.8	512.9	334.6	373,494.99	873,113.51	32.0222995	-103.2628152
6,200.0		33.12	6,156.9	524.5	342.2	373,506.64	873,121.12	32.0223313	-103.2627903
6,214.3		33.12	6,171.0	526.2	343.3	373,508.31	873,122.20	32.0223359	-103.2627867
Tansill			•			,	,		
6,300.0	8.00	33.12	6,255.9	536.2	349.9	373,518.30	873,128.72	32.0223632	-103.2627654
6,400.0		33.12	6,354.9	547.9	357.5	373,529.96	873,136.33	32.0223950	-103.2627405
6,500.0		33.12	6,453.9	559.5	365.1	373,541.61	873,143.93	32.0224268	-103.2627156
6,600.0		33.12	6,553.0	571.2	372.7	373,553.27	873,151.54	32.0224587	-103.2626907
6,700.0		33.12	6,652.0	582.8	380.3	373,564.92	873,159.14	32.0224905	-103.2626658
6,732.8		33.12	6,684.5	586.7	382.8	373,568.75	873,161.64	32.0225009	-103.2626576
6,762.6	<b>rop -2.00</b> 7.40	33.12	6,714.0	590.0	384.9	373,572.09	873,163.82	32.0225101	-103.2626505
Capitai		00.12	0,7 14.0	000.0	004.0	070,072.00	070,100.02	02.0220101	100.2020000
6,800.0		33.12	6,751.1	593.8	387.4	373,575.92	873,166.32	32.0225205	-103.2626423
6,900.0		33.12	6,850.6	602.1	392.8	373,584.18	873,171.71	32.0225431	-103.2626246
7,000.0	2.66	33.12	6,950.4	607.4	396.3	373,589.52	873,175.19	32.0225576	-103.2626132
7,100.0		33.12	7,050.4	609.8	397.9	373,591.94	873,176.77	32.0225643	-103.2626080
7,132.8		0.00	7,083.2	610.0	398.0	373,592.10	873,176.87	32.0225647	-103.2626077
	039.3 hold a								
7,200.0		0.00	7,150.4	610.0	398.0	373,592.10	873,176.87	32.0225647	-103.2626077
7,300.0		0.00	7,250.4	610.0 610.0	398.0	373,592.10	873,176.87	32.0225647 32.0225647	-103.2626077
7,400.0 7,500.0		0.00 0.00	7,350.4 7,450.4	610.0	398.0 398.0	373,592.10 373,592.10	873,176.87 873,176.87	32.0225647 32.0225647	-103.2626077 -103.2626077
7,600.0		0.00	7,430.4	610.0	398.0	373,592.10	873,176.87	32.0225647	-103.2626077
7,700.0		0.00	7,650.4	610.0	398.0	373,592.10	873,176.87	32.0225647	-103.2626077
7,800.0		0.00	7,750.4	610.0	398.0	373,592.10	873,176.87	32.0225647	-103.2626077
7,900.0	0.00	0.00	7,850.4	610.0	398.0	373,592.10	873,176.87	32.0225647	-103.2626077
7,959.6	0.00	0.00	7,910.0	610.0	398.0	373,592.10	873,176.87	32.0225647	-103.2626077
Lamar									
8,000.0		0.00	7,950.4	610.0	398.0	373,592.10	873,176.87	32.0225647	-103.2626077
8,100.0		0.00	8,050.4	610.0	398.0	373,592.10	873,176.87	32.0225647	-103.2626077
8,130.6		0.00	8,081.0	610.0	398.0	373,592.10	873,176.87	32.0225647	-103.2626077
Bell Ca	•	0.00	0.450.4	640.0	200.0	272 500 40	072 476 07	20 0005047	100 0000077
8,200.0 8,300.0		0.00 0.00	8,150.4 8,250.4	610.0 610.0	398.0 398.0	373,592.10 373,592.10	873,176.87 873,176.87	32.0225647 32.0225647	-103.2626077 -103.2626077
8,400.0		0.00	8,350.4	610.0	398.0 398.0	373,592.10 373,592.10	873,176.87	32.0225647	-103.2626077
8,500.0		0.00	8,450.4	610.0	398.0	373,592.10	873,176.87	32.0225647	-103.2626077
8,600.0		0.00	8,550.4	610.0	398.0	373,592.10	873,176.87	32.0225647	-103.2626077
8,700.0		0.00	8,650.4	610.0	398.0	373,592.10	873,176.87	32.0225647	-103.2626077
						, <del>-</del>			



Database: AUS-COMPASS - EDM\_15 - 32bit

Company: Ameredev Operating
Project: Lea County, NM (N83-NME)

Site: Camelia\_Azalea

Well: AZALEA STATE COM 26-36-28 074H

Wellbore: OWB Design: PWP Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well AZALEA STATE COM26-36-28 074H

KB=25' @ 2935.0usft KB=25' @ 2935.0usft

Grid

Planned Surv	<b>r</b> ey								
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,800.0		0.00	8,750.4	610.0	398.0	373,592.10	873,176.87	32.0225647	-103.2626077
8,900.0		0.00	8,850.4	610.0	398.0	373,592.10	873,176.87	32.0225647	-103.2626077
9,000.0 9,100.0		0.00 0.00	8,950.4 9,050.4	610.0 610.0	398.0 398.0	373,592.10 373,592.10	873,176.87 873,176.87	32.0225647 32.0225647	-103.2626077 -103.2626077
9,172.1		0.00	9,122.5	610.0	398.0	373,592.10	873,176.87	32.0225647	-103.2626077
	tart DLS 12.0			010.0	000.0	010,002.10	070,170.07	02.0220017	100.2020011
9,175.0		179.41	9,125.4	610.0	398.0	373,592.09	873,176.87	32.0225647	-103.2626077
9,200.0	3.34	179.41	9,150.4	609.2	398.0	373,591.28	873,176.88	32.0225624	-103.2626077
9,225.0		179.41	9,175.3	607.1	398.0	373,589.17	873,176.90	32.0225566	-103.2626077
9,250.0		179.41	9,200.0	603.7	398.1	373,585.76	873,176.94	32.0225473	-103.2626077
9,275.0		179.41	9,224.6	599.0	398.1	373,581.06	873,176.99	32.0225343	-103.2626077
9,300.0		179.41	9,248.8	593.0	398.2	373,575.08	873,177.05	32.0225179	-103.2626077
9,325.0 9,350.0		179.41 179.41	9,272.8 9,296.3	585.7 577.3	398.2 398.3	373,567.83 373,559.35	873,177.12 873,177.21	32.0224980 32.0224747	-103.2626077 -103.2626077
9,375.0		179.41	9,319.3	567.5	398.4	373,549.64	873,177.31	32.0224747	-103.2626077
9,400.0		179.41	9,341.8	556.7	398.5	373,538.75	873,177.42	32.0224180	-103.2626076
9,425.0		179.41	9,363.7	544.6	398.7	373,526.69	873,177.54	32.0223849	-103.2626076
9,450.0		179.41	9,384.9	531.4	398.8	373,513.50	873,177.68	32.0223486	-103.2626076
9,475.0		179.41	9,405.5	517.1	399.0	373,499.22	873,177.83	32.0223094	-103.2626076
9,500.0		179.41	9,425.2	501.8	399.1	373,483.88	873,177.98	32.0222672	-103.2626076
9,525.0		179.41	9,444.1	485.4	399.3	373,467.54	873,178.15	32.0222223	-103.2626076
9,550.0 9,575.0		179.41 179.41	9,462.1 9,479.2	468.1 449.9	399.5 399.6	373,450.22 373,431.99	873,178.33 873,178.52	32.0221747 32.0221246	-103.2626075 -103.2626075
9,600.0		179.41	9,479.2	430.8	399.8	373,412.88	873,178.71	32.0221240	-103.2626075
9,625.0		179.41	9,510.5	410.9	400.0	373,392.96	873,178.92	32.0220173	-103.2626075
9,650.0		179.41	9,524.5	390.2	400.3	373,372.28	873,179.13	32.0219604	-103.2626074
9,675.0		179.41	9,537.4	368.8	400.5	373,350.89	873,179.35	32.0219016	-103.2626074
9,700.0		179.41	9,549.2	346.8	400.7	373,328.85	873,179.58	32.0218411	-103.2626074
9,725.0		179.41	9,559.8	324.1	400.9	373,306.22	873,179.81	32.0217789	-103.2626074
9,750.0		179.41	9,569.3	301.0	401.2	373,283.07	873,180.05	32.0217152	-103.2626073
9,775.0 9,800.0		179.41 179.41	9,577.5 9,584.4	277.4 253.4	401.4 401.7	373,259.46 373,235.45	873,180.29 873,180.54	32.0216503 32.0215843	-103.2626073 -103.2626073
9,800.0		179.41	9,594.4	229.0	401.7	373,233.43	873,180.79	32.0215174	-103.2626073
9,850.0		179.41	9,594.5	204.4	402.2	373,186.51	873,181.04	32.0214498	-103.2626072
9,875.0		179.41	9,597.6	179.6	402.4	373,161.71	873,181.30	32.0213816	-103.2626072
9,900.0	87.34	179.41	9,599.5	154.7	402.7	373,136.78	873,181.55	32.0213131	-103.2626072
9,922.1	90.00	179.41	9,600.0	132.6	402.9	373,114.66	873,181.78	32.0212523	-103.2626071
	rt 7563.3 hol								
10,000.0		179.41	9,600.0	54.7	403.7	373,036.79	873,182.58	32.0210383	-103.2626070
10,100.0		179.41	9,600.0	-45.3	404.7	372,936.80	873,183.61	32.0207634	-103.2626069
10,200.0 10,300.0		179.41 179.41	9,600.0 9,600.0	-145.3 -245.3	405.8 406.8	372,836.80 372,736.81	873,184.64 873,185.66	32.0204885 32.0202137	-103.2626068 -103.2626067
10,400.0		179.41	9,600.0	-345.3	400.8	372,636.81	873,186.69	32.0199388	-103.2626067
10,500.0		179.41	9,600.0	-445.3	408.8	372,536.82	873,187.72	32.0196639	-103.2626065
10,600.0		179.41	9,600.0	-545.3	409.9	372,436.82	873,188.75	32.0193891	-103.2626063
10,700.0		179.41	9,600.0	-645.3	410.9	372,336.83	873,189.77	32.0191142	-103.2626062
10,800.0		179.41	9,600.0	-745.3	411.9	372,236.83	873,190.80	32.0188393	-103.2626061
10,900.0		179.41	9,600.0	-845.3	413.0	372,136.84	873,191.83	32.0185645	-103.2626060
11,000.0		179.41	9,600.0	-945.3	414.0	372,036.84	873,192.86	32.0182896	-103.2626059
11,100.0 11,200.0		179.41 179.41	9,600.0 9,600.0	-1,045.2 -1,145.2	415.0 416.0	371,936.85 371,836.85	873,193.88 873,194.91	32.0180147 32.0177399	-103.2626057 -103.2626056
11,200.0		179.41	9,600.0	-1,145.2 -1,245.2	410.0	371,736.86	873,194.91 873,195.94	32.0177399 32.0174650	-103.2626056 -103.2626055
11,400.0		179.41	9,600.0	-1,245.2	418.1	371,636.86	873,196.97	32.0171902	-103.2626054
11,500.0		179.41	9,600.0	-1,445.2	419.1	371,536.87	873,198.00	32.0169153	-103.2626053
,,,,,,,,			,			,	,		



Database: AUS-COMPASS - EDM\_15 - 32bit

Company: Ameredev Operating
Project: Lea County, NM (N83-NME)

Site: Camelia\_Azalea

Well: AZALEA STATE COM 26-36-28 074H

Wellbore: OWB Design: PWP Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well AZALEA STATE COM26-36-28 074H

KB=25' @ 2935.0usft KB=25' @ 2935.0usft

Grid

Design:	PVVF								
Planned Surv	ev.								
i idimod odi i	٠,								
Measured			Vertical			Мар	Map		
Depth	Inclination		Depth	+N/-S	+E/-W	Northing	Easting		
(usft)	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)	Latitude	Longitude
11,600.0	90.00	179.41	9,600.0	-1,545.2	420.2	371,436.88	873,199.02	32.0166404	-103.2626051
11,700.0	90.00	179.41	9,600.0	-1,645.2	421.2	371,336.88	873,200.05	32.0163656	-103.2626050
11,800.0		179.41	9,600.0	-1,745.2	422.2	371,236.89	873,201.08	32.0160907	-103.2626049
11,900.0		179.41	9,600.0	-1,845.2	423.2	371,136.89	873,202.11	32.0158158	-103.2626048
12,000.0		179.41	9,600.0	-1,945.2	424.3	371,036.90	873,203.13	32.0155410	-103.2626047
12,100.0		179.41	9,600.0	-2,045.2	425.3	370,936.90	873,204.16	32.0152661	-103.2626045
12,200.0		179.41	9,600.0	-2,145.2	426.3	370,836.91	873,205.19	32.0149912	-103.2626044
12,300.0		179.41	9,600.0	-2,245.2	427.3 428.4	370,736.91	873,206.22	32.0147164	-103.2626043
12,400.0 12,500.0		179.41 179.41	9,600.0 9,600.0	-2,345.2 -2,445.2	420.4 429.4	370,636.92 370,536.92	873,207.25 873,208.27	32.0144415 32.0141666	-103.2626042 -103.2626041
12,600.0		179.41	9,600.0	-2,445.2 -2,545.2	430.4	370,436.93	873,209.30	32.0138918	-103.2626041
12,700.0		179.41	9,600.0	-2,645.2	431.5	370,336.93	873,210.33	32.0136169	-103.2626038
12,800.0		179.41	9,600.0	-2,745.2	432.5	370,236.94	873,211.36	32.0133420	-103.2626037
12,900.0		179.41	9,600.0	-2,845.2	433.5	370,136.94	873,212.38	32.0130672	-103.2626036
13,000.0		179.41	9,600.0	-2,945.1	434.5	370,036.95	873,213.41	32.0127923	-103.2626035
13,100.0	90.00	179.41	9,600.0	-3,045.1	435.6	369,936.95	873,214.44	32.0125174	-103.2626034
13,200.0	90.00	179.41	9,600.0	-3,145.1	436.6	369,836.96	873,215.47	32.0122426	-103.2626032
13,300.0		179.41	9,600.0	-3,245.1	437.6	369,736.97	873,216.50	32.0119677	-103.2626031
13,400.0		179.41	9,600.0	-3,345.1	438.7	369,636.97	873,217.52	32.0116929	-103.2626030
13,500.0		179.41	9,600.0	-3,445.1	439.7	369,536.98	873,218.55	32.0114180	-103.2626029
13,600.0		179.41	9,600.0	-3,545.1	440.7	369,436.98	873,219.58	32.0111431	-103.2626028
13,700.0		179.41	9,600.0	-3,645.1	441.7	369,336.99	873,220.61	32.0108683	-103.2626026
13,800.0		179.41	9,600.0	-3,745.1	442.8 443.8	369,236.99	873,221.63	32.0105934	-103.2626025
13,900.0 14,000.0		179.41 179.41	9,600.0 9,600.0	-3,845.1 -3,945.1	443.6 444.8	369,137.00 369,037.00	873,222.66 873,223.69	32.0103185 32.0100437	-103.2626024 -103.2626023
14,100.0		179.41	9,600.0	-3,945.1 -4,045.1	445.8	368,937.01	873,224.72	32.0097688	-103.2626023
14,200.0		179.41	9,600.0	-4,145.1	446.9	368,837.01	873,225.74	32.0094939	-103.2626020
14,300.0		179.41	9,600.0	-4,245.1	447.9	368,737.02	873,226.77	32.0092191	-103.2626019
14,400.0		179.41	9,600.0	-4,345.1	448.9	368,637.02	873,227.80	32.0089442	-103.2626018
14,500.0		179.41	9,600.0	-4,445.1	450.0	368,537.03	873,228.83	32.0086693	-103.2626017
14,600.0	90.00	179.41	9,600.0	-4,545.1	451.0	368,437.03	873,229.86	32.0083945	-103.2626016
14,700.0	90.00	179.41	9,600.0	-4,645.1	452.0	368,337.04	873,230.88	32.0081196	-103.2626014
14,800.0		179.41	9,600.0	-4,745.1	453.0	368,237.04	873,231.91	32.0078447	-103.2626013
14,900.0		179.41	9,600.0	-4,845.0	454.1	368,137.05	873,232.94	32.0075699	-103.2626012
15,000.0		179.41	9,600.0	-4,945.0	455.1	368,037.06	873,233.97	32.0072950	-103.2626011
15,100.0		179.41	9,600.0	-5,045.0	456.1	367,937.06	873,234.99	32.0070201	-103.2626010
15,200.0		179.41	9,600.0	-5,145.0	457.1	367,837.07	873,236.02	32.0067453	-103.2626008
15,300.0		179.41 179.41	9,600.0	-5,245.0	458.2 450.2	367,737.07	873,237.05	32.0064704 32.0061955	-103.2626007
15,400.0 15,500.0		179.41	9,600.0 9,600.0	-5,345.0 -5,445.0	459.2 460.2	367,637.08 367,537.08	873,238.08 873,239.11	32.0051955	-103.2626006 -103.2626005
15,600.0		179.41	9,600.0	-5,445.0 -5,545.0	461.3	367,437.09	873,240.13	32.0056458	-103.2626004
15,700.0		179.41	9,600.0	-5,645.0	462.3	367,337.09	873,241.16	32.0053709	-103.2626002
15,800.0		179.41	9,600.0	-5,745.0	463.3	367,237.10	873,242.19	32.0050961	-103.2626001
15,900.0		179.41	9,600.0	-5,845.0	464.3	367,137.10	873,243.22	32.0048212	-103.2626000
16,000.0		179.41	9,600.0	-5,945.0	465.4	367,037.11	873,244.24	32.0045464	-103.2625999
16,100.0		179.41	9,600.0	-6,045.0	466.4	366,937.11	873,245.27	32.0042715	-103.2625998
16,200.0		179.41	9,600.0	-6,145.0	467.4	366,837.12	873,246.30	32.0039966	-103.2625996
16,300.0		179.41	9,600.0	-6,245.0	468.5	366,737.12	873,247.33	32.0037218	-103.2625995
16,400.0		179.41	9,600.0	-6,345.0	469.5	366,637.13	873,248.35	32.0034469	-103.2625994
16,500.0		179.41	9,600.0	-6,445.0	470.5	366,537.13	873,249.38	32.0031720	-103.2625993
16,600.0		179.41	9,600.0	-6,545.0	471.5	366,437.14	873,250.41	32.0028972	-103.2625992
16,700.0		179.41	9,600.0	-6,645.0	472.6	366,337.14	873,251.44	32.0026223	-103.2625990
16,800.0		179.41	9,600.0	-6,744.9 6,844.0	473.6	366,237.15	873,252.47	32.0023474	-103.2625989
16,900.0 17,000.0		179.41 179.41	9,600.0 9,600.0	-6,844.9 -6,944.9	474.6 475.6	366,137.16 366,037.16	873,253.49 873,254.52	32.0020726 32.0017977	-103.2625988 -103.2625987
17,000.0	90.00	179.41	3,000.0	-0,344.8	413.0	JUU,UJ1.10	013,234.32	52.0011911	-103.2023967



Database: AUS-COMPASS - EDM\_15 - 32bit Company: Ameredev Operating

Project: Lea Course Management (N83-NME)

Site: Camelia\_Azalea

Well: AZALEA STATE COM 26-36-28 074H

Wellbore: OWB Design: PWP Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

**Survey Calculation Method:** 

Well AZALEA STATE COM26-36-28 074H

KB=25' @ 2935.0usft KB=25' @ 2935.0usft

Grid

Minimum Curvature

Plant	ned S	urvey
-------	-------	-------

(°)	Azimuth (°)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
90.00	179.41	9,600.0	-7,044.9	476.7	365,937.17	873,255.55	32.0015228	-103.2625986
90.00	179.41	9,600.0	-7,144.9	477.7	365,837.17	873,256.58	32.0012480	-103.2625984
90.00	179.41	9,600.0	-7,244.9	478.7	365,737.18	873,257.60	32.0009731	-103.2625983
90.00	179.41	9,600.0	-7,344.9	479.8	365,637.18	873,258.63	32.0006982	-103.2625982
90.00	179.41	9,600.0	-7,430.3	480.6	365,551.76	873,259.51	32.0004634	-103.2625981
	90.00 90.00 90.00 90.00	90.00 179.41 90.00 179.41 90.00 179.41 90.00 179.41 90.00 179.41	90.00 179.41 9,600.0 90.00 179.41 9,600.0 90.00 179.41 9,600.0 90.00 179.41 9,600.0 90.00 179.41 9,600.0	90.00 179.41 9,600.0 -7,044.9 90.00 179.41 9,600.0 -7,144.9 90.00 179.41 9,600.0 -7,244.9 90.00 179.41 9,600.0 -7,344.9 90.00 179.41 9,600.0 -7,430.3	90.00 179.41 9,600.0 -7,044.9 476.7 90.00 179.41 9,600.0 -7,144.9 477.7 90.00 179.41 9,600.0 -7,244.9 478.7 90.00 179.41 9,600.0 -7,344.9 479.8 90.00 179.41 9,600.0 -7,430.3 480.6	90.00 179.41 9,600.0 -7,044.9 476.7 365,937.17 90.00 179.41 9,600.0 -7,144.9 477.7 365,837.17 90.00 179.41 9,600.0 -7,244.9 478.7 365,737.18 90.00 179.41 9,600.0 -7,344.9 479.8 365,637.18 90.00 179.41 9,600.0 -7,430.3 480.6 365,551.76	90.00 179.41 9,600.0 -7,044.9 476.7 365,937.17 873,255.55 90.00 179.41 9,600.0 -7,144.9 477.7 365,837.17 873,256.58 90.00 179.41 9,600.0 -7,244.9 478.7 365,737.18 873,257.60 90.00 179.41 9,600.0 -7,344.9 479.8 365,637.18 873,258.63 90.00 179.41 9,600.0 -7,430.3 480.6 365,551.76 873,259.51	90.00 179.41 9,600.0 -7,044.9 476.7 365,937.17 873,255.55 32.0015228 90.00 179.41 9,600.0 -7,144.9 477.7 365,837.17 873,256.58 32.0012480 90.00 179.41 9,600.0 -7,244.9 478.7 365,737.18 873,257.60 32.0009731 90.00 179.41 9,600.0 -7,344.9 479.8 365,637.18 873,258.63 32.0006982 90.00 179.41 9,600.0 -7,430.3 480.6 365,551.76 873,259.51 32.0004634

Desig	ın Ta	raets
Desig	JII I a	ıyetə

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (ASC 074H) - plan misses targe - Point	0.00 et center by	0.00 0.3usft at 9	9,600.0 920.1usft N	134.6 ID (9600.0 T	403.2 VD, 134.6 N	373,116.67 I, 402.9 E)	873,182.05	32.0212578	-103.2626062
BHL (ASC 074H) - plan hits target co - Point	0.00 enter	0.00	9,600.0	-7,430.3	480.6	365,551.76	873,259.51	32.0004634	-103.2625981
LTP (ASC 074H) - plan misses targe - Point	0.00 et center by	0.00 35.4usft at	9,600.0 17400.0ust	-7,380.3 t MD (9600.0	480.1 0 TVD, -734	365,601.82 4.9 N, 479.8 E)	873,259.01	32.0006010	-103.2625981

......

Formations									
	Measured Depth (usft)	Vertical Depth (usft)		Name	Lit	thology	Dip (°)	Dip Direction (°)	
	2,946.5	2,935.0	Dewey Lake						
	4,681.4	4,653.0	Rustler						
	5,120.6	5,088.0	Salado						
	6,214.3	6,171.0	Tansill						
	6,762.6	6,714.0	Capitan						
	7,959.6	7,910.0	Lamar						
	8,130.6	8,081.0	Bell Canyon						

Plan	Annot	tati	ons
------	-------	------	-----

Measured	Vertical	Local Coordinates		
Depth (usft)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Comment
1,500.0	1,500.0	0.0	0.0	Start Build 2.00
1,900.0	1,898.7	23.3	15.2	Start 4832.8 hold at 1900.0 MD
6,732.8	6,684.5	586.7	382.8	Start Drop -2.00
7,132.8	7,083.2	610.0	398.0	Start 2039.3 hold at 7132.8 MD
9,172.1	9,122.5	610.0	398.0	KOP-Start DLS 12.00 TFO 179.41
9,922.1	9,600.0	132.6	402.9	LP-Start 7563.3 hold at 9922.1 MD
17,485.4	9,600.0	-7,430.3	480.6	TD at 17485.4



#### H<sub>2</sub>S Drilling Operation Plan

## 1. All Company and Contract personnel admitted on location must be trained by a qualified H<sub>2</sub>S safety instructor to the following:

- a. Characteristics of H<sub>2</sub>S
- b. Physical effects and hazards
- c. Principal and operation of H<sub>2</sub>s 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. H<sub>2</sub>S Detection and Alarm Systems:

- a.  $H_2S$  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  $H_2S$  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/Escape 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.



#### H<sub>2</sub>S 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. <u>Drill Stem Testing:</u> 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 H<sub>2</sub>S has on tubular goods and other mechanical equipment provided through contractor.



#### H<sub>2</sub>S Contingency Plan

#### **Emergency Procedures**

In the event of a release of H<sub>2</sub>S, 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 H<sub>2</sub>S 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:
  - o Detection of H₂S and
  - o Measures for protection against the gas,
  - o 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 (SO<sub>2</sub>). 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 H<sub>2</sub>S and SO<sub>2</sub>

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H <sub>2</sub> S	1.189 Air=1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	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)



### H<sub>2</sub>S Contingency Plan

Ameredev Operating LLC – Emergency Phone 737-300-4799					
Key Personnel:	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		

Artesia	
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
Santa Fe	
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
Medical	
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 <u>Effective May 25, 2021</u>

I. (	Operator:	Ameredev II, L	LC	OGRID: _	372224	1Date	e: <u>0</u> 6/21/2023 _
II.	<b>Type:</b> ⊠ Original □ An	mendment due t	o □ 19.15.27.9	.D(6)(a) NMA	□ 19.15.27.9.1	D(6)(b) NMAC 🗆 (	Other.
If C	Other, please describe:						
	Well(s): Provide the for recompleted from a sing					of wells proposed to	be drilled or proposed to
	Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
	Azalea 26 36 28 State Com 284H	30025-		230' FNL & 795' FEL	10	51	18
	Azalea 26 36 28 State Com 061H	30025-		210' FNL & 385' FEL	679	3,238	2,992

230' FNL &

1686' FWL 230' FNL &

1386' FWL

250' FNL &

2111' FWL

230' FNL &

735' FEL

8

49

8

8

40

244

38

38

20

86

13

13

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

Azalea 26 36 28 State

Com 062H

Com 071H

Com 072H

Com 074H

30025-

30025-

30025-

30025-

**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 284H	30025-	12/01/2024	01/15/2025	02/15/2025	03/01/2025	03/04/2025
Azalea 26 36 28 State Com 061H	30025-	12/01/2024	01/15/2025	02/15/2025	03/01/2025	03/04/2025
Azalea 26 36 28 State Com 062H	30025-	12/01/2024	01/15/2025	02/15/2025	03/01/2025	03/04/2025
Azalea 26 36 28 State Com 071H	30025-	12/01/2024	01/15/2025	02/15/2025	03/01/2025	03/04/2025
Azalea 26 36 28 State Com 072H	30025-	12/01/2024	01/15/2025	02/15/2025	03/01/2025	03/04/2025
Azalea 26 36 28 State Com 074H	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 <u>EFFECTIVE APRIL 1, 2022</u>

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. $\square$ 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.

<b>XII.</b> Line Capacity. The natural gas gathering system $\square$ will $\square$ 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.	<b>Line Pressure.</b> Operator $\square$ does $\square$ does not anticipate that its existing well(s) confidence in the confidence of th	nected to the same segment, or portion,	of the
natura	al gas gathering system(s) described above will continue to meet anticipated increase	s in line pressure caused by the new wo	ell(s).

Attach O	perator's	plan to	manage	production	in res	ponse to	the	increased	line	pressure

XIV.	Confidentiality: $\square$	Operator asserts	confidentiality	pursuant to	Section 7	71-2-8 NMSA	1978 for the	information	provided in
Section	n 2 as provided in Pa	ragraph (2) of Su	bsection D of 19	0.15.27.9 NM	IAC, and	l attaches a full	description of	f the specific	information
for wh	ich confidentiality is	asserted and the	basis for such as	sertion.					

(i)

## Section 3 - Certifications Effective May 25, 2021

Operator certifies that, a	fter reasonable inquiry and based on the available information at the time of submittal:
one hundred percent of	to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering
hundred percent of the a into account the current	able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one nticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. box, Operator will select one of the following:
<b>Well Shut-In.</b> □ Opera D of 19.15.27.9 NMAC	tor will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection ; or
Venting and Flaring P	lan. □ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential
alternative beneficial us	es 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) (h)	reinjection for enhanced oil recovery; fuel cell production; and
(11)	tuci cen production, and

#### **Section 4 - Notices**

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

other alternative beneficial uses approved by the division.

- (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: Casca Gu
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. <u>Operational Practices: Attach a complete description of the actions Operator will</u> 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. <u>Best Management Practices: Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.</u>

- 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