<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 352660

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

	· · · · · · · · · · · · · · · · · · ·	
Operator Name and Address		2. OGRID Number
AMEREDEV OPERATING, LLC		372224
2901 Via Fortuna	3. API Number	
Austin, TX 78746		30-025-52126
4. Property Code	5. Property Name	6. Well No.
320055	AMEN CORNER 26 36 27 STATE COM	123H

7 Surface Location

ſ	UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
	N	22	26S	36E	N	230	S	1700	W	Lea

8. Proposed Bottom Hole Location

ſ	UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
	F	34	26S	36E	3	51	S	1650	W	Lea

#### 9. Pool Information

WC-025	G-09 S263619C;WOLFCAMP	98234

**Additional Well Information** 

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	2903
16. Multiple	17. Proposed Depth	18. Formation	19. Contractor	20. Spud Date
N	19558	Wolfcamp		1/15/2024
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	68	2095	1700	0
Int1	9.875	7.625	29.7	10707	3194	0
Prod	6.75	5.5	23	19558	1522	0

#### Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Туре	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.				OIL CONSERVAT	TION DIVISION	
Signature:						
Printed Name:	Electronically filed by Christie Har	nna	Approved By:	Paul F Kautz		
Title:	Regulatory	Regulatory		Geologist		
Email Address:	channa@ameredev.com		Approved Date:	10/19/2023	Expiration Date: 10/19/2025	
Date:	te: 10/18/2023 Phone: 737-300-4723			Conditions of Approval 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 Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 Phone: (505) 4170 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

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

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

AMENDED REPORT

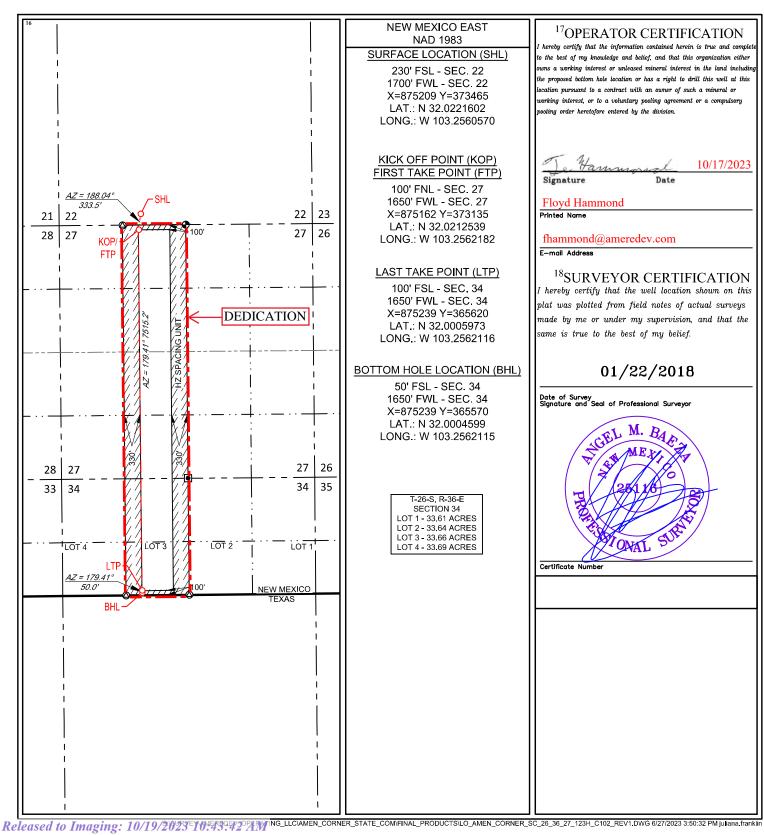
#### WELL LOCATION AND ACREAGE DEDICATION PLAT

<sup>1</sup> API Number	<sup>2</sup> Pool Code	<sup>3</sup> Pool Name						
30-025-	98234	WC-025 G-09 S263619C; WOLFCAMP						
<sup>4</sup> Property Code	<sup>5</sup> Pr	operty Name	<sup>6</sup> Well Number					
320055	AMEN CORNER	26 36 27 STATE COM	123H					
<sup>7</sup> OGRID No.	<sup>8</sup> O <sub>I</sub>	perator Name	<sup>9</sup> Elevation					
372224	AMEREDEV	OPERATING, LLC.	2903'					
100 6 7 4								

<sup>○</sup>Surface Location

UL or lot no.		Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	· ·		
N	22	26-S	36-E	-	230'	SOUTH	1700'	WEST	LEA		
	<sup>11</sup> Bottom Hole Location If Different From Surface										
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County		
3	34	26-S	36-E	-	51'	SOUTH	1650'	WEST	LEA		
12Dedicated Acres	<sup>13</sup> Joint or I	nfill <sup>14</sup> Co	nsolidation Cod	le <sup>15</sup> Ord	er No.	•					
233.66			C								

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.



Form APD Conditions

Permit 352660

<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

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**

#### PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
AMEREDEV OPERATING, LLC [372224]	30-025-52126
2901 Via Fortuna	Well:
Austin, TX 78746	AMEN CORNER 26 36 27 STATE COM #123H

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



## **Wellbore Schematic**

Well: Amen Corner 26 36 27 State Com 123H SHL: Sec. 22 26S-36E 230' FSL & 1700' FWL BHL: Sec. 34 26S-36E 51' FSL & 1650' FWL

Lea, NM

Wellhead: A - 13-5/8" 10M x 13-5/8" SOW

B - 13-5/8" 10M x 13-5/8" 10M C - 13-5/8" 10M x 13-5/8" 10M

Tubing Spool - 7-1/16" 15M x 13-3/8" 10M

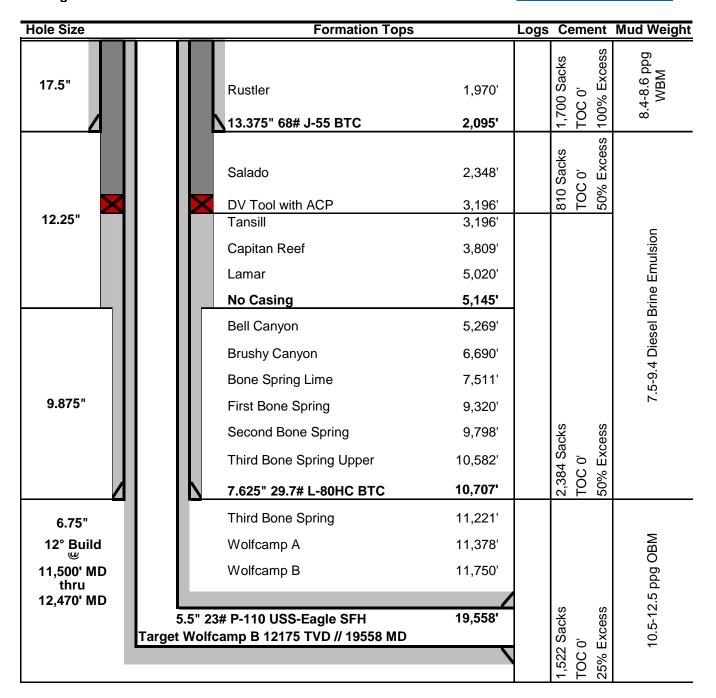
Xmas Tree: 2-9/16" 10M

**Tubing:** 2-7/8" L-80 6.5# 8rd EUE

GL: 2,903'
Field: Delaware
Objective: Wolfcamp B
TVD: 12,175'
MD: 19,558'

Rig: TBD KB 27'

E-Mail: Wellsite2@ameredev.com



# Casing Design and Safety Factor Check

		Casing .	Specificati	ons		
Segment	Hole ID	Depth	OD	Weight	Grade	Coupling
Surface	17.5	2,095'	13.375	68	J-55	BTC
Intermediate	9.875	10,707'	7.625	29.7	HCL-80	BTC
Production	6.75	11,500'	5.5	23	P-110	SFH

	Chec	k Surface (	Casing	
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
14.375	1,069	915	4,100	3,450
	S	afety Facto	ors	
1.56	7.51	6.42	4.38	0.66
	Check I	ntermedia	te Casing	
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
7.625	940	558	6700	9460
	S	afety Facto	ors	
1.13	2.96	2.00	1.28	1.20
	Check Pro	od Casing,	Segment A	
OD Cplg	Body	Joint	Collapse	Burst
inches	1000 lbs	1000 lbs	psi	psi
5.777	728	655	12780	14360
	S	afety Facto	ors	
0.49	2.60	2.34	1.71	1.82
_				



# **Ameredev Operating**

Lea County, NM (N83-NME)

AMEN CORNER ST COM PROJECT

AMEN CORNER 26 36 27 ST COM 123H

**OWB** 

Plan: PWP

# **Standard Planning Report - Geographic**

24 August, 2023



TVD Reference:

MD Reference:

North Reference:

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

Company: Ameredev Operating Lea County, NM (N83-NME) Project: Site: AMEN CORNER ST COM PROJECT Well: AMEN CORNER ST COM 26 36 27 #123H

OWB Wellbore: PWP Design:

Local Co-ordinate Reference:

**Survey Calculation Method:** 

Well AMEN CORNER ST COM 26 36 27

#123H

KB=25' @ 2928.0usft KB=25' @ 2928.0usft

Grid

Minimum Curvature

**Project** Lea County, NM (N83-NME)

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

System Datum:

Mean Sea Level

AMEN CORNER ST COM PROJECT Site

Site Position: Northing: 373,452.33 usft Latitude: 32.0221652 From: Lat/Long Easting: 873,738.68 usft Longitude: -103.2607997 **Position Uncertainty:** 13-3/16 "

0.0 usft Slot Radius:

Well AMEN CORNER ST COM 26 36 27 #123H

32.0221602 **Well Position** +N/-S 0.0 usft Northing: 373,465.14 usft Latitude:

+E/-W -103.2560570 0.0 usft Easting: 875,208.64 usft Longitude: **Position Uncertainty** 3.0 usft Wellhead Elevation: Ground Level: 2,903.0 usft

Grid Convergence: 0.57°

**OWB** Wellbore

Magnetics **Model Name** Declination Dip Angle Field Strength Sample Date (°) (°) (nT) IGRF2020 6/29/2023 6.14 59.69 47,196.69852192

PWP Design

**Audit Notes:** 

Version: Phase: **PROTOTYPE** 0.0 Tie On Depth:

Vertical Section: Depth From (TVD) +E/-W Direction +N/-S (usft) (usft) (usft) (°) 0.0 0.0 0.0 179.41

8/24/2023 **Plan Survey Tool Program** Date

**Depth From** Depth To

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

0.0 19,557.7 PWP (OWB) MWD 1

OWSG MWD - Standard



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

Company: Ameredev Operating
Project: Lea County, NM (N83-NME)
Site: AMEN CORNER ST COM PROJECT
Well: AMEN CORNER ST COM 26 36 27 #123H

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

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well AMEN CORNER ST COM 26 36 27

#123H

KB=25' @ 2928.0usft KB=25' @ 2928.0usft

Grid

n Sections Measured			Vertical			Dogleg	Build	Turn		
Depth (usft)	Inclination (°)	Azimuth (°)	Depth (usft)	+N/-S (usft)	+E/-W (usft)	Rate (°/100usft)	Rate (°/100usft)	Rate (°/100usft)	TFO (°)	Target
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.00	0.00	0.00	0.00	
1,900.0	8.00	188.05	1,898.7	-27.6	-3.9	2.00	2.00	0.00	188.05	
3,895.5	8.00	188.05	3,874.8	-302.6	-42.8	0.00	0.00	0.00	0.00	
4,295.5	0.00	0.00	4,273.5	-330.2	-46.7	2.00	-2.00	0.00	180.00	
11,720.0	0.00	0.00	11,698.0	-330.2	-46.7	0.00	0.00	0.00	0.00	
12,470.0	90.00	179.41	12,175.5	-807.7	-41.8	12.00	12.00	23.92	179.41	
19,557.7	90.00	179.41	12,175.0	-7,895.0	30.8	0.00	0.00	0.00	0.00	BHL (ACSC #123H



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

Company: Ameredev Operating
Project: Lea County, NM (N83-NME)
Site: AMEN CORNER ST COM PROJECT
Well: AMEN CORNER ST COM 26 36 27 #123H

Wellbore: OWB
Design: PWP

Local Co-ordinate Reference:

**Survey Calculation Method:** 

TVD Reference: MD Reference: North Reference: Well AMEN CORNER ST COM 26 36 27

#123H

KB=25' @ 2928.0usft KB=25' @ 2928.0usft

Grid

Design.									
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	373,465.14	875,208.64	32.0221602	-103.2560570
100.0		0.00	100.0	0.0	0.0	373,465.14	875,208.64	32.0221602	-103.2560570
200.0		0.00	200.0	0.0	0.0	373,465.14	875,208.64	32.0221602	-103.2560570
300.0		0.00	300.0	0.0	0.0	373,465.14	875,208.64	32.0221602	-103.2560570
400.0		0.00	400.0	0.0	0.0	373,465.14	875,208.64	32.0221602	-103.2560570
500.0		0.00	500.0	0.0	0.0	373,465.14	875,208.64	32.0221602	-103.2560570
600.0		0.00	600.0	0.0	0.0	373,465.14	875,208.64	32.0221602	-103.2560570
700.0	0.00	0.00	700.0	0.0	0.0	373,465.14	875,208.64	32.0221602	-103.2560570
800.0	0.00	0.00	800.0	0.0	0.0	373,465.14	875,208.64	32.0221602	-103.2560570
900.0	0.00	0.00	900.0	0.0	0.0	373,465.14	875,208.64	32.0221602	-103.2560570
1,000.0	0.00	0.00	1,000.0	0.0	0.0	373,465.14	875,208.64	32.0221602	-103.2560570
1,100.0	0.00	0.00	1,100.0	0.0	0.0	373,465.14	875,208.64	32.0221602	-103.2560570
1,200.0	0.00	0.00	1,200.0	0.0	0.0	373,465.14	875,208.64	32.0221602	-103.2560570
1,300.0	0.00	0.00	1,300.0	0.0	0.0	373,465.14	875,208.64	32.0221602	-103.2560570
1,400.0	0.00	0.00	1,400.0	0.0	0.0	373,465.14	875,208.64	32.0221602	-103.2560570
1,500.0	0.00	0.00	1,500.0	0.0	0.0	373,465.14	875,208.64	32.0221602	-103.2560570
1,600.0	2.00	188.05	1,600.0	-1.7	-0.2	373,463.41	875,208.40	32.0221555	-103.2560578
1,700.0		188.05	1,699.8	-6.9	-1.0	373,458.23	875,207.66	32.0221413	-103.2560604
1,800.0		188.05	1,799.5	-15.5	-2.2	373,449.60	875,206.44	32.0221176	-103.2560646
1,900.0	8.00	188.05	1,898.7	-27.6	-3.9	373,437.53	875,204.74	32.0220845	-103.2560705
2,000.0	8.00	188.05	1,997.7	-41.4	-5.9	373,423.75	875,202.79	32.0220466	-103.2560772
2,100.0		188.05	2,096.8	-55.2	-7.8	373,409.97	875,200.84	32.0220088	-103.2560839
2,168.9	8.00	188.05	2,165.0	-64.7	-9.1	373,400.48	875,199.50	32.0219828	-103.2560886
Rustler									
2,200.0		188.05	2,195.8	-68.9	-9.8	373,396.19	875,198.89	32.0219710	-103.2560907
2,300.0		188.05	2,294.8	-82.7	-11.7	373,382.41	875,196.94	32.0219332	-103.2560974
2,400.0		188.05	2,393.8	-96.5	-13.6	373,368.63	875,194.99	32.0218954	-103.2561041
2,500.0	8.00	188.05	2,492.9	-110.3	-15.6	373,354.85	875,193.04	32.0218575	-103.2561109
2,600.0		188.05	2,591.9	-124.1	-17.5	373,341.07	875,191.09	32.0218197	-103.2561176
2,600.1	8.00	188.05	2,592.0	-124.1	-17.5	373,341.06	875,191.09	32.0218197	-103.2561176
Salado									
2,700.0		188.05	2,690.9	-137.8	-19.5	373,327.29	875,189.15	32.0217819	-103.2561243
2,800.0		188.05	2,789.9	-151.6	-21.4	373,313.51	875,187.20	32.0217441	-103.2561311
2,900.0	8.00	188.05	2,889.0	-165.4	-23.4	373,299.73	875,185.25	32.0217062	-103.2561378
3,000.0		188.05	2,988.0	-179.2	-25.3	373,285.95	875,183.30	32.0216684	-103.2561445
3,100.0		188.05	3,087.0	-193.0	-27.3	373,272.17	875,181.35	32.0216306	-103.2561512
3,200.0	8.00	188.05	3,186.1	-206.7	-29.2	373,258.39	875,179.40	32.0215928	-103.2561580
3,300.0		188.05	3,285.1	-220.5	-31.2	373,244.61	875,177.45	32.0215550	-103.2561647
3,311.0	8.00	188.05	3,296.0	-222.0	-31.4	373,243.09	875,177.24	32.0215508	-103.2561654
Tansill									
3,400.0		188.05	3,384.1	-234.3	-33.1	373,230.83	875,175.50	32.0215171	-103.2561714
3,500.0		188.05	3,483.1	-248.1	-35.1	373,217.05	875,173.55	32.0214793	-103.2561782
3,600.0		188.05	3,582.2	-261.9	-37.0	373,203.27	875,171.61	32.0214415	-103.2561849
3,700.0		188.05	3,681.2	-275.6	-39.0	373,189.49	875,169.66	32.0214037	-103.2561916
3,787.7	8.00	188.05	3,768.0	-287.7	-40.7	373,177.41	875,167.95	32.0213705	-103.2561975
Capitan		465.55	0 =====			070 ::	075 : 27 - 2	00.65.555	100 000 000
3,800.0		188.05	3,780.2	-289.4	-40.9	373,175.71	875,167.71	32.0213659	-103.2561984
3,895.5		188.05	3,874.8	-302.6	-42.8	373,162.54	875,165.85	32.0213297	-103.2562048
3,900.0		188.05	3,879.2	-303.2	-42.9	373,161.93	875,165.76	32.0213280	-103.2562051
4,000.0		188.05	3,978.5	-315.1	-44.6	373,150.02	875,164.07	32.0212953	-103.2562109
4,100.0		188.05	4,078.1	-323.6	-45.8	373,141.54	875,162.88	32.0212721	-103.2562150
4,200.0		188.05	4,178.0	-328.6	-46.5	373,136.52	875,162.16	32.0212583	-103.2562175
4,295.5	0.00	0.00	4,273.5	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183



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

Company: Ameredev Operating
Project: Lea County, NM (N83-NME)
Site: AMEN CORNER ST COM PROJECT

Wellbore: OWB
Design: PWP

Well: AMEN CORNER ST COM 26 36 27 #123H
Wellbore: OWB

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well AMEN CORNER ST COM 26 36 27

#123H

KB=25' @ 2928.0usft KB=25' @ 2928.0usft

Grid

Plar	nned Survey									
	Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
	4,300.0	0.00	0.00	4,278.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	4,400.0	0.00	0.00	4,378.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	4,500.0	0.00	0.00	4,478.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	4,600.0	0.00	0.00	4,578.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	4,700.0	0.00	0.00	4,678.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	4,800.0	0.00	0.00	4,778.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	4,900.0	0.00	0.00	4,878.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	5,000.0	0.00	0.00	4,978.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	5,080.0	0.00	0.00	5,058.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	Lamar									
	5,100.0	0.00	0.00	5,078.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	5,200.0	0.00 0.00	0.00 0.00	5,178.0	-330.2	-46.7 -46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	5,262.0		0.00	5,240.0	-330.2	-40.7	373,134.94	875,161.94	32.0212539	-103.2562183
	5,300.0	yon 0.00	0.00	5,278.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	5,400.0	0.00	0.00	5,378.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	5,500.0	0.00	0.00	5,478.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	5,600.0	0.00	0.00	5,578.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	5,700.0	0.00	0.00	5,678.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	5,800.0	0.00	0.00	5,778.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	5,900.0	0.00	0.00	5,878.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	6,000.0	0.00	0.00	5,978.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	6,100.0	0.00	0.00	6,078.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	6,200.0	0.00	0.00	6,178.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	6,300.0	0.00	0.00	6,278.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	6,400.0	0.00	0.00	6,378.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	6,500.0	0.00	0.00	6,478.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	6,600.0 6,700.0	0.00 0.00	0.00 0.00	6,578.0 6,678.0	-330.2 -330.2	-46.7 -46.7	373,134.94 373,134.94	875,161.94 875,161.94	32.0212539 32.0212539	-103.2562183 -103.2562183
	6,800.0	0.00	0.00	6,778.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	6,806.0	0.00	0.00	6,784.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	Brushy (		0.00	0,701.0	000.2	10.7	070,101.01	070,101.01	02.0212000	100.2002100
	6,900.0	0.00	0.00	6,878.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	7,000.0	0.00	0.00	6,978.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	7,100.0	0.00	0.00	7,078.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	7,200.0	0.00	0.00	7,178.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	7,300.0	0.00	0.00	7,278.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	7,400.0	0.00	0.00	7,378.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	7,500.0	0.00	0.00	7,478.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	7,600.0	0.00	0.00	7,578.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	7,700.0	0.00	0.00	7,678.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	7,800.0	0.00	0.00	7,778.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	7,823.0	0.00	0.00	7,801.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	7,900.0	ring Lime	0.00	7,878.0	220.2	46.7	272 424 04	075 464 04	22 0242520	102.0560102
	8,000.0	0.00	0.00 0.00	7,070.0 7,978.0	-330.2 -330.2	-46.7 -46.7	373,134.94 373,134.94	875,161.94 875,161.94	32.0212539 32.0212539	-103.2562183 -103.2562183
	8,100.0	0.00	0.00	8,078.0	-330.2	-46.7 -46.7	373,134.94 373,134.94	875,161.94 875,161.94	32.0212539	-103.2562183
	8,200.0	0.00	0.00	8,178.0	-330.2	-46.7 -46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	8,300.0	0.00	0.00	8,278.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	8,400.0	0.00	0.00	8,378.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	8,500.0	0.00	0.00	8,478.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	8,600.0	0.00	0.00	8,578.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	8,700.0	0.00	0.00	8,678.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183



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

Company: Ameredev Operating
Project: Lea County, NM (N83-NME)
Site: AMEN CORNER ST COM PROJECT

Well: AMEN CORNER ST COM 26 36 27 #123H

Wellbore: OWB
Design: PWP

Local Co-ordinate Reference:

TVD Reference: MD Reference: North Reference:

Survey Calculation Method:

Well AMEN CORNER ST COM 26 36 27

#123H

KB=25' @ 2928.0usft KB=25' @ 2928.0usft

Grid

Design.	FVVF								
Planned Surv	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	0.00	8,778.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
8,900	.0 0.00	0.00	8,878.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
9,000	.0 0.00	0.00	8,978.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
9,100		0.00	9,078.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
9,200		0.00	9,178.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
9,300		0.00	9,278.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
9,400		0.00	9,378.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
9,401	.0 0.00	0.00	9,379.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	one Spring								
9,500		0.00	9,478.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
9,600		0.00	9,578.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
9,700 9,800		0.00	9,678.0 9,778.0	-330.2 -330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183 -103.2562183
9,800		0.00	9,776.0	-330.2 -330.2	-46.7 -46.7	373,134.94 373,134.94	875,161.94 875,161.94	32.0212539 32.0212539	-103.2562183
	d Bone Spring	0.00	9,024.0	-330.2	-40.7	373,134.94	073,101.94	32.0212339	-103.2302103
9,900		0.00	9,878.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
10,000			9,978.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
10,100		0.00	10,078.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
10,200			10,178.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
10,300		0.00	10,278.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
10,400		0.00	10,378.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
10,500	.0 0.00	0.00	10,478.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
10,600	.0 0.00	0.00	10,578.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
10,675	.0 0.00	0.00	10,653.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	Bone Spring Up	-							
10,700		0.00	10,678.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
10,800			10,778.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
10,900		0.00	10,878.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
11,000			10,978.0	-330.2 -330.2	-46.7 -46.7	373,134.94	875,161.94	32.0212539 32.0212539	-103.2562183 -103.2562183
11,100 11,200		0.00	11,078.0 11,178.0	-330.2 -330.2	-46.7 -46.7	373,134.94 373,134.94	875,161.94 875,161.94	32.0212539	-103.2562183
11,296		0.00	11,170.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
	Bone Spring	0.00	11,271.0	000.2	10.1	070,101.01	070,101.01	02.02 12000	100.2002100
11,300		0.00	11,278.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
11,400		0.00	11,378.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
11,475			11,453.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
Wolfc	amp								
11,500	.0 0.00	0.00	11,478.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
11,600	.0 0.00	0.00	11,578.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
11,700		0.00	11,678.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
11,720			11,698.0	-330.2	-46.7	373,134.94	875,161.94	32.0212539	-103.2562183
11,800			11,777.6	-336.9	-46.6	373,128.26	875,162.01	32.0212356	-103.2562183
11,900			11,873.8	-363.7	-46.4	373,101.42	875,162.28	32.0211618	-103.2562182
11,901		179.41	11,875.0	-364.2	-46.4	373,100.92	875,162.29	32.0211604	-103.2562182
Wolfc	•	170 44	11 060 0	440.0	45.0	272 055 40	075 460 76	22 0240247	102.2562402
12,000 12,100			11,962.2 12,039.1	-410.0 -473.6	-45.9 -45.2	373,055.18 372,991.56	875,162.76 875,163.41	32.0210347 32.0208598	-103.2562182 -103.2562181
	CSC #123H)	113.41	12,000.1	<del>-+</del> 10.0	-40.2	312,331.00	070,100.41	02.0200030	-100.2302101
12,200		179.41	12,101.1	-551.8	-44.4	372,913.34	875,164.21	32.0206448	-103.2562181
12,200			12,145.5	-641.2	-44.4	372,823.94	875,165.13	32.0203991	-103.2562180
12,400			12,170.3	-737.9	-42.5	372,727.26	875,166.12	32.0201333	-103.2562179
12,470		179.41	12,175.5	-807.7	-41.8	372,657.47	875,166.83	32.0199415	-103.2562178
12,500		179.41	12,175.5	-837.6	-41.5	372,627.52	875,167.14	32.0198592	-103.2562178



TVD Reference:

MD Reference:

North Reference:

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

Company: Ameredev Operating
Project: Lea County, NM (N83-NME)
Site: AMEN CORNER ST COM PROJECT

Well: AMEN CORNER ST COM 26 36 27 #123H

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

**Survey Calculation Method:** 

Well AMEN CORNER ST COM 26 36 27

#123H

KB=25' @ 2928.0usft KB=25' @ 2928.0usft

Grid

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
12,600.0	90.00	179.41	12,175.5	-937.6	-40.5	372,527.52	875,168.16	32.0195843	-103.2562177
12,700.0	90.00	179.41	12,175.4	-1,037.6	-39.5	372,427.53	875,169.19	32.0193094	-103.2562176
12,800.0		179.41	12,175.4	-1,137.6	-38.4	372,327.53	875,170.21	32.0190346	-103.2562176
12,900.0	90.00	179.41	12,175.4	-1,237.6	-37.4	372,227.54	875,171.24	32.0187597	-103.2562175
13,000.0	90.00	179.41	12,175.4	-1,337.6	-36.4	372,127.54	875,172.26	32.0184848	-103.2562174
13,100.0	90.00	179.41	12,175.4	-1,437.6	-35.4	372,027.55	875,173.29	32.0182100	-103.2562173
13,200.0	90.00	179.41	12,175.4	-1,537.6	-34.3	371,927.55	875,174.31	32.0179351	-103.2562172
13,300.0	90.00	179.41	12,175.4	-1,637.6	-33.3	371,827.56	875,175.33	32.0176602	-103.2562171
13,400.0	90.00	179.41	12,175.4	-1,737.6	-32.3	371,727.56	875,176.36	32.0173854	-103.2562170
13,500.0	90.00	179.41	12,175.4	-1,837.6	-31.3	371,627.57	875,177.38	32.0171105	-103.2562169
13,600.0	90.00	179.41	12,175.4	-1,937.6	-30.2	371,527.58	875,178.41	32.0168356	-103.2562168
13,700.0		179.41	12,175.4	-2,037.6	-29.2	371,427.58	875,179.43	32.0165608	-103.2562168
13,800.0	90.00	179.41	12,175.4	-2,137.6	-28.2	371,327.59	875,180.46	32.0162859	-103.2562167
13,900.0		179.41	12,175.4	-2,237.5	-27.2	371,227.59	875,181.48	32.0160111	-103.2562166
14,000.0	90.00	179.41	12,175.4	-2,337.5	-26.1	371,127.60	875,182.51	32.0157362	-103.2562165
14,100.0		179.41	12,175.4	-2,437.5	-25.1	371,027.60	875,183.53	32.0154613	-103.2562164
14,200.0		179.41	12,175.4	-2,537.5	-24.1	370,927.61	875,184.55	32.0151865	-103.2562163
14,300.0		179.41	12,175.3	-2,637.5	-23.1	370,827.61	875,185.58	32.0149116	-103.2562162
14,400.0		179.41	12,175.3	-2,737.5	-22.0	370,727.62	875,186.60	32.0146367	-103.2562161
14,500.0		179.41	12,175.3	-2,837.5	-21.0	370,627.62	875,187.63	32.0143619	-103.2562160
14,600.0	90.00	179.41	12,175.3	-2,937.5	-20.0	370,527.63	875,188.65	32.0140870	-103.2562160
14,700.0		179.41	12,175.3	-3,037.5	-19.0	370,427.63	875,189.68	32.0138121	-103.2562159
14,800.0		179.41	12,175.3	-3,137.5	-17.9	370,327.64	875,190.70	32.0135373	-103.2562158
14,900.0		179.41	12,175.3	-3,237.5	-16.9	370,227.64	875,191.72	32.0132624	-103.2562157
15,000.0		179.41 179.41	12,175.3	-3,337.5 -3,437.5	-15.9 -14.9	370,127.65	875,192.75	32.0129875 32.0127127	-103.2562156 -103.2562155
15,100.0 15,200.0		179.41	12,175.3 12,175.3	-3,437.5 -3,537.5	-14.9	370,027.65 369,927.66	875,193.77 875,194.80	32.012/12/	-103.2562154
15,300.0		179.41	12,175.3	-3,537.5 -3,637.5	-13.6 -12.8	369,827.66	875,195.82	32.0124378	-103.2562153
15,400.0	90.00	179.41	12,175.3	-3,737.5	-12.8	369,727.67	875,196.85	32.0121029	-103.2562152
15,500.0		179.41	12,175.3	-3,837.5	-10.8	369,627.67	875,197.87	32.0116132	-103.2562151
15,600.0		179.41	12,175.3	-3,937.5	-9.7	369,527.68	875,198.89	32.0113384	-103.2562151
15,700.0		179.41	12,175.3	-4,037.5	-8.7	369,427.69	875,199.92	32.0110635	-103.2562150
15,800.0		179.41	12,175.2	-4,137.4	-7.7	369,327.69	875,200.94	32.0107886	-103.2562149
15,900.0		179.41	12,175.2	-4,237.4	-6.7	369,227.70	875,201.97	32.0105138	-103.2562148
16,000.0		179.41	12,175.2	-4,337.4	-5.6	369,127.70	875,202.99	32.0102389	-103.2562147
16,100.0		179.41	12,175.2	-4,437.4	-4.6	369,027.71	875,204.02	32.0099640	-103.2562146
16,200.0	90.00	179.41	12,175.2	-4,537.4	-3.6	368,927.71	875,205.04	32.0096892	-103.2562145
16,300.0		179.41	12,175.2	-4,637.4	-2.6	368,827.72	875,206.07	32.0094143	-103.2562144
16,400.0	90.00	179.41	12,175.2	-4,737.4	-1.6	368,727.72	875,207.09	32.0091394	-103.2562143
16,500.0	90.00	179.41	12,175.2	-4,837.4	-0.5	368,627.73	875,208.11	32.0088646	-103.2562143
16,600.0	90.00	179.41	12,175.2	-4,937.4	0.5	368,527.73	875,209.14	32.0085897	-103.2562142
16,700.0	90.00	179.41	12,175.2	-5,037.4	1.5	368,427.74	875,210.16	32.0083148	-103.2562141
16,800.0	90.00	179.41	12,175.2	-5,137.4	2.5	368,327.74	875,211.19	32.0080400	-103.2562140
16,900.0	90.00	179.41	12,175.2	-5,237.4	3.6	368,227.75	875,212.21	32.0077651	-103.2562139
17,000.0	90.00	179.41	12,175.2	-5,337.4	4.6	368,127.75	875,213.24	32.0074902	-103.2562138
17,100.0		179.41	12,175.2	-5,437.4	5.6	368,027.76	875,214.26	32.0072154	-103.2562137
17,200.0	90.00	179.41	12,175.2	-5,537.4	6.6	367,927.76	875,215.28	32.0069405	-103.2562136
17,300.0		179.41	12,175.1	-5,637.4	7.7	367,827.77	875,216.31	32.0066656	-103.2562135
17,400.0		179.41	12,175.1	-5,737.4	8.7	367,727.77	875,217.33	32.0063908	-103.2562134
17,500.0		179.41	12,175.1	-5,837.4	9.7	367,627.78	875,218.36	32.0061159	-103.2562134
17,600.0		179.41	12,175.1	-5,937.4	10.7	367,527.78	875,219.38	32.0058411	-103.2562133
17,700.0		179.41	12,175.1	-6,037.3	11.8	367,427.79	875,220.41	32.0055662	-103.2562132
17,800.0		179.41	12,175.1	-6,137.3	12.8	367,327.80	875,221.43	32.0052913	-103.2562131
17,900.0	90.00	179.41	12,175.1	-6,237.3	13.8	367,227.80	875,222.46	32.0050165	-103.2562130



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

Company: Ameredev Operating
Project: Lea County, NM (N83-NME)
Site: AMEN CORNER ST COM PROJECT
Well: AMEN CORNER ST COM 26 36 27 #123H

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

TVD Reference:
MD Reference:
North Reference:

**Survey Calculation Method:** 

Well AMEN CORNER ST COM 26 36 27

#123H

KB=25' @ 2928.0usft KB=25' @ 2928.0usft

Grid

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
18,000.0	90.00	179.41	12,175.1	-6,337.3	14.8	367,127.81	875,223.48	32.0047416	-103.2562
18,100.0	90.00	179.41	12,175.1	-6,437.3	15.9	367,027.81	875,224.50	32.0044667	-103.256
18,200.0	90.00	179.41	12,175.1	-6,537.3	16.9	366,927.82	875,225.53	32.0041919	-103.256
18,300.0	90.00	179.41	12,175.1	-6,637.3	17.9	366,827.82	875,226.55	32.0039170	-103.256
18,400.0	90.00	179.41	12,175.1	-6,737.3	18.9	366,727.83	875,227.58	32.0036421	-103.256
18,500.0	90.00	179.41	12,175.1	-6,837.3	20.0	366,627.83	875,228.60	32.0033673	-103.256
18,600.0	90.00	179.41	12,175.1	-6,937.3	21.0	366,527.84	875,229.63	32.0030924	-103.256
18,700.0	90.00	179.41	12,175.1	-7,037.3	22.0	366,427.84	875,230.65	32.0028175	-103.256
18,800.0	90.00	179.41	12,175.0	-7,137.3	23.0	366,327.85	875,231.67	32.0025427	-103.256
18,900.0	90.00	179.41	12,175.0	-7,237.3	24.1	366,227.85	875,232.70	32.0022678	-103.256
19,000.0	90.00	179.41	12,175.0	-7,337.3	25.1	366,127.86	875,233.72	32.0019929	-103.256
19,100.0	90.00	179.41	12,175.0	-7,437.3	26.1	366,027.86	875,234.75	32.0017181	-103.256
19,200.0	90.00	179.41	12,175.0	-7,537.3	27.1	365,927.87	875,235.77	32.0014432	-103.256
19,300.0	90.00	179.41	12,175.0	-7,637.3	28.2	365,827.87	875,236.80	32.0011683	-103.256
19,400.0	90.00	179.41	12,175.0	-7,737.3	29.2	365,727.88	875,237.82	32.0008935	-103.256
19,500.0	90.00	179.41	12,175.0	-7,837.3	30.2	365,627.88	875,238.85	32.0006186	-103.256
LTP (ACS	SC #123H)								
19,557.7	90.00	179.41	12,175.0	-7,895.0	30.8	365,570.15	875,239.44	32.0004599	-103.256

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
BHL (ACSC #123H) - plan hits target co - Point	0.00 enter	0.00	12,175.0	-7,895.0	30.8	365,570.15	875,239.44	32.0004599	-103.2562115
LTP (ACSC #123H) - plan misses targe - Point	0.00 et center by 7.7u	0.01 usft at 19500	12,175.0 .0usft MD (1	-7,845.0 2175.0 TVD, -	30.3 7837.3 N, 30.2	365,620.14 2 E)	875,238.91	32.0005973	-103.2562116
FTP (ACSC #123H) - plan misses targe - Point	0.00 et center by 197	0.00 5usft at 121.	12,175.0 00.0usft MD	-330.2 (12039.1 TVE	-46.7 D, -473.6 N, -4	373,134.93 5.2 E)	875,161.97	32.0212539	-103.2562182



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Wellbore: OWB
Design: PWP

Local Co-ordinate Reference:

TVD Reference:

**Survey Calculation Method:** 

North Reference:

Well AMEN CORNER ST COM 26 36 27

#123H

KB=25' @ 2928.0usft KB=25' @ 2928.0usft

Grid

ions						
	Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
	2,168.9	2,165.0	Rustler		0.00	
	2,600.1	2,592.0	Salado		0.00	
	3,311.0	3,296.0	Tansill		0.00	
	3,787.7	3,768.0	Capitan		0.00	
	5,080.0	5,058.0	Lamar		0.00	
	5,262.0	5,240.0	Bell Canyon		0.00	
	6,806.0	6,784.0	Brushy Canyon		0.00	
	7,823.0	7,801.0	Bone Spring Lime		0.00	
	9,401.0	9,379.0	First Bone Spring		0.00	
	9,846.0	9,824.0	Second Bone Spring		0.00	
	10,675.0	10,653.0	Third Bone Spring Upper		0.00	
	11,296.0	11,274.0	Third Bone Spring		0.00	
	11,475.0	11,453.0	Wolfcamp		0.00	
	11,901.3	11,875.0	Wolfcamp B		0.00	



# 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			

<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
Carlsbad	
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 Effective May 25, 2021

I. O	perator:	_Ameredev II, Ll	LC	OGRID: _	372224	Date:	<u> </u>		
II. T	II. Type: ⊠ Original □ Amendment due to □ 19.15.27.9.D(6)(a) NMAC □ 19.15.27.9.D(6)(b) NMAC □ Other.								
If O	ther, 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		

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
Amen Corner 26 36 27 State Com 062H	30025-		230' FSL & 1660' FWL	680	3,412	2,610
Amen Corner 26 36 27 State Com 063H	30025-		200' FNL & 2310' FEL	680	3,412	2,610
Amen Corner 26 36 27 State Com 072H	30025-		200' FNL & 2390' FEL	680	3,412	2,610
Amen Corner 26 36 27 State Com 073H	30025-		230' FSL & 1055' FEL	680	3,412	2,610
Amen Corner 26 36 27 State Com 123H	30025-		230' FSL & 1700' FWL	680	3,412	2,610
Amen Corner 26 36 27 State Com 125H	30025-		200' FNL & 2350' 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
Amen Corner 26 36 27 State Com 062H	30025-	01/15/2024	03/02/2024	04/02/2024	04/30/2024	05/03/2024
Amen Corner 26 36 27 State Com 063H	30025-	01/15/2024	03/02/2024	04/02/2024	04/30/2024	05/03/2024
Amen Corner 26 36 27 State Com 072H	30025-	01/15/2024	03/02/2024	04/02/2024	04/30/2024	05/03/2024
Amen Corner 26 36 27 State Com 073H	30025-	01/15/2024	03/02/2024	04/02/2024	04/30/2024	05/03/2024
Amen Corner 26 36 27 State Com 123H	30025-	01/15/2024	03/02/2024	04/02/2024	04/30/2024	05/03/2024
Amen Corner 26 36 27 State Com 125H	30025-	01/15/2024	03/02/2024	04/02/2024	04/30/2024	05/03/2024

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

VII. Operational Practices: 

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

VIII. Best Management Practices: 

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

# Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

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

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

#### IX. Anticipated Natural Gas Production:

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

#### X. Natural Gas Gathering System (NGGS):

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

XI. Map. $\square$ 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. Line Capacity.</b> The natural gas gathering system $\square$ will $\square$ will not	ot 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 resi	onse to	the in	creased	line 1	oressure.

XIV. C	Confidentiality: $\square$	Operator asserts	confidentiality	pursuant to	Section '	71-2-8 NMS	A 1978 for the	information	provided in
Section	2 as provided in Pa	ragraph (2) of Su	bsection D of 19	9.15.27.9 NM	IAC, and	l attaches a ful	l description of	f the specific	information
for which	ch confidentiality is	asserted and the	basis for such as	ssertion.					

(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	e 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 anticipated 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:
Well Shut-In. ☐ 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 C; or
	Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential
	ses for the natural gas until a natural gas gathering system is available, including:
(a)	power generation on lease;
( <b>b</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 COII PIOUUCHOII, AHU

## 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: 10/17/2023
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