Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Carlsbad Field Office
OCD Hobbs

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

HOBBS OCD
OCT 17 2019
RECEIVED

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other	5. Lease Serial No. NMNM23199
	6. If Indian, Allottee or Tribe Name
	7. If Unit or CA/Agreement, Name and/or No.
	8. Well Name and No. CAMELLIA FED COM 26 36 21 121H
2. Name of Operator AMEREDEV OPERATING LLC Contact: CHRISTIE HANNA E-Mail: CHANNA@AMEREDEV.COM	9. API Well No. 30-025-45897-00-S1
3a. Address 5707 SOUTHWEST PARKWAY BLDG 1 STE 275 AUSTIN, TX 78735 3b. Phone No. (include area code) Ph: 7373004723	10. Field and Pool or Exploratory Area JAL WEST
4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)* Sec 21 T26S R36E 283FSL 270FWL 32.022297 N Lat, 103.277718 W Lon	11. County or Parish, State LEA COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Drilling Operations
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

FINAL AS-DRILLED DIRECTONAL PLANS ATTACHED

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #486580 verified by the BLM Well Information System
For AMEREDEV OPERATING LLC, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 10/04/2019 (20PP0064SE)

Name *(Printed/Typed)* ZACHARY BOYD — Title OPERATIONS SUPERINTENDENT

Signature (Electronic Submission) — Date 10/04/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By — Title **Accepted for Record** — Date OCT 08 2019

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office **Jonathon Shepard**
Carlsbad Field Office

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

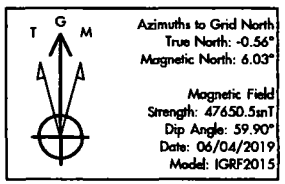
AMEREDEV

Project: Lea Co., NM (NAD 83 Grid)
Site: Camellia Fed Com 26-36-21
Well: 121H
Wellbore: ST01
Design: ST01
Lat: 32.022296
Long: -103.277721
GL: 2924.00
KB: RKB=27' @ 2951.00usft (H&P 616)

ALTITUDE ENERGY PARTNERS

WELL DETAILS: 121H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	373448.30	868493.74	32.022296	-103.277721

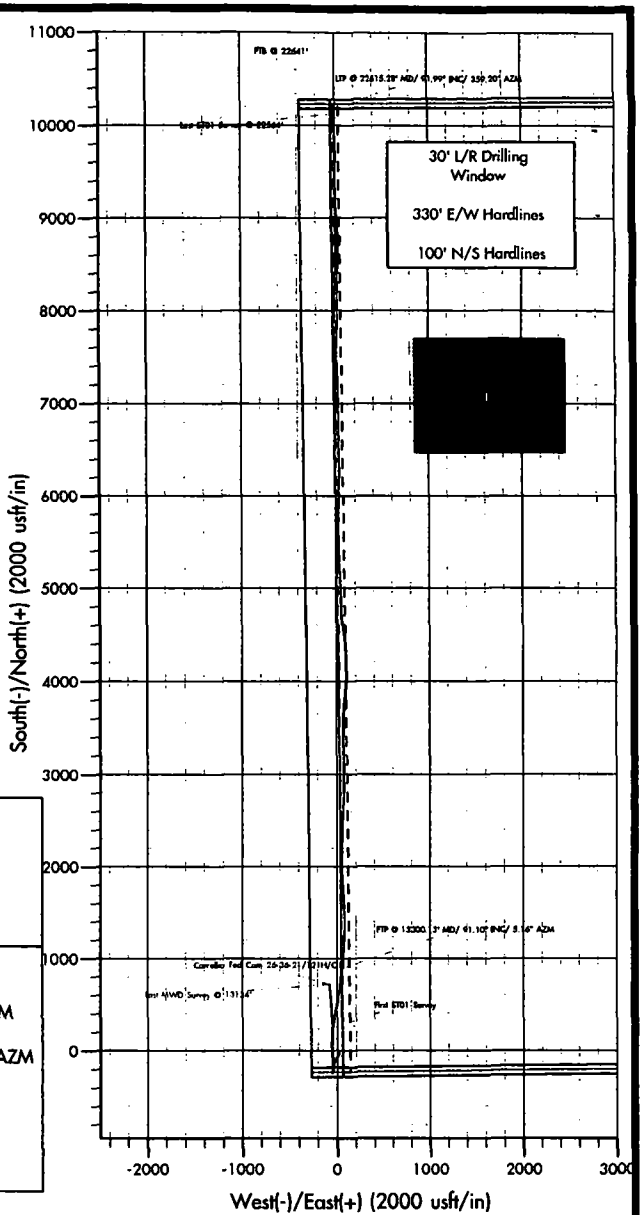


Azimuths to Grid North
True North: -0.56°
Magnetic North: 6.03°

Magnetic Field
Strength: 47650.5snT
Dip Angle: 59.90°
Date: 06/04/2019
Model: IGRF2015

PLAN ANNOTATIONS

MD	Inc	Azi	TVD	+N/-S	+E/-W	VSect	Departure	Annotation
12651.00	84.58	8.27	12364.43	250.08	-49.31	249.45	789.88	First ST01 Survey
13300.13	91.10	5.16	12346.43	890.13	51.17	890.70	1438.40	FTP @ 13300.13' MD/ 91.10° INC/ 5.16° AZM
22564.00	91.99	359.20	11993.95	10127.53	-11.53	10126.60	10684.86	Last ST01 Survey @ 22564'
22615.28	91.99	359.20	11992.17	10178.77	-12.25	10177.83	10736.11	LTP @ 22615.28' MD/ 91.99° INC/ 359.20° AZM
22641.00	91.99	359.20	11991.28	10204.47	-12.61	10203.53	10761.81	PTB @ 22641'



Design: ST01 (121H/ST01)
Created By: Dusty Meyer Date: 13:05, June 27 2019

AMEREDEV

Ameredev Operating LLC

Lea Co., NM (NAD 83 Grid)
Camellia Fed Com 26-36-21
121H

ST01

Design: ST01

Survey Report - Geographic

27 June, 2019

LATITUDE ENERGY PARTNERS

Company:	Ameredev Operating LLC	**Local Co-ordinate Reference:**	Well 121H
Project:	Lea Co., NM (NAD 83 Grid)	**TVD Reference:**	RKB=27' @ 2951.00usft (H&P 616)
Site:	Camellia Fed Com 26-36-21	**MD Reference:**	RKB=27' @ 2951.00usft (H&P 616)
Well:	121H	**North Reference:**	Grid
Wellbore:	ST01	**Survey Calculation Method:**	Minimum Curvature
Design:	ST01	**Database:**	EDM 5000.1 Single User Db

Project	Lea Co., NM (NAD 83 Grid)		
Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site	Camellia Fed Com 26-36-21				
Site Position:		**Northing:**	373,448.30 usft	**Latitude:**	32.022296
From:	Map	**Easting:**	868,493.74 usft	**Longitude:**	-103.277721
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.56 °

Well	121H					
Well Position	**+N/-S**	0.00 usft	**Northing:**	373,448.30 usft	**Latitude:**	32.022296
	+E/-W	0.00 usft	**Easting:**	868,493.74 usft	**Longitude:**	-103.277721
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	2,924.00 usft

Wellbore	ST01				
Magnetics	**Model Name**	**Sample Date**	**Declination (°)**	**Dip Angle (°)**	**Field Strength (nT)**
	IGRF2015	06/04/19	6.59	59.90	47,650.52665348

Design	ST01				
Audit Notes:					
Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	12,604.00
Vertical Section:	**Depth From (TVD) (usft)**	**+N/-S (usft)**	**+E/-W (usft)**	**Direction (°)**	
	0.00	0.00	0.00	0.71	

Survey Program **Date** 06/27/19

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
58.00	11,680.00	Scout Surveys (OH)	MWD+IFR1	OWSG MWD + IFR1
11,786.00	12,604.00	MWD Surveys (OH)	MWD	OWSG MWD - Standard
12,651.00	22,641.00	MWD Survey (ST01)	MWD	OWSG MWD - Standard

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	373,448.30	868,493.74	32.022296	-103.277721
58.00	0.22	200.24	58.00	-0.10	-0.04	373,448.19	868,493.70	32.022296	-103.277721
88.00	0.09	276.36	88.00	-0.16	-0.08	373,448.14	868,493.66	32.022296	-103.277721
118.00	0.35	249.11	118.00	-0.19	-0.19	373,448.11	868,493.55	32.022296	-103.277722
205.00	0.62	355.19	205.00	0.19	-0.48	373,448.49	868,493.26	32.022297	-103.277723
268.00	0.66	357.57	267.99	0.89	-0.52	373,449.19	868,493.22	32.022299	-103.277723
299.00	0.57	359.24	298.99	1.22	-0.53	373,449.52	868,493.21	32.022300	-103.277723
330.00	0.44	332.25	329.99	1.48	-0.59	373,449.78	868,493.15	32.022300	-103.277723
361.00	0.09	47.49	360.99	1.60	-0.63	373,449.90	868,493.11	32.022301	-103.277723
391.00	0.09	69.99	390.99	1.63	-0.59	373,449.93	868,493.15	32.022301	-103.277723

Company:	Ameredev Operating LLC	**Local Co-ordinate Reference:**	Well 121H
Project:	Lea Co., NM (NAD 83 Grid)	**TVD Reference:**	RKB=27' @ 2951.00usft (H&P 616)
Site:	Camellia Fed Com 26-36-21	**MD Reference:**	RKB=27' @ 2951.00usft (H&P 616)
Well:	121H	**North Reference:**	Grid
Wellbore:	ST01	**Survey Calculation Method:**	Minimum Curvature
Design:	ST01	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
423.00	0.79	25.34	422.99	1.84	-0.47	373,450.13	868,493.27	32.022301	-103.277723
485.00	0.57	38.79	484.98	2.46	-0.09	373,450.76	868,493.65	32.022303	-103.277721
515.00	0.53	342.54	514.98	2.71	-0.04	373,451.01	868,493.70	32.022304	-103.277721
577.00	0.57	27.45	576.98	3.26	0.01	373,451.56	868,493.75	32.022305	-103.277721
632.00	0.62	266.69	631.98	3.48	-0.16	373,451.78	868,493.58	32.022306	-103.277721
734.00	1.05	289.28	733.97	3.76	-1.59	373,452.06	868,492.15	32.022307	-103.277726
825.00	0.53	158.93	824.96	3.64	-2.23	373,451.94	868,491.51	32.022306	-103.277728
917.00	0.97	183.63	916.96	2.47	-2.12	373,450.77	868,491.62	32.022303	-103.277728
1,007.00	1.19	175.55	1,006.94	0.78	-2.10	373,449.08	868,491.64	32.022298	-103.277728
1,098.00	1.10	126.06	1,097.92	-0.68	-1.32	373,447.62	868,492.42	32.022294	-103.277725
1,188.00	2.29	124.13	1,187.88	-2.20	0.87	373,446.10	868,494.61	32.022290	-103.277718
1,358.00	3.78	128.26	1,357.64	-7.57	8.08	373,440.73	868,501.82	32.022275	-103.277695
1,448.00	2.73	129.40	1,447.49	-10.77	12.07	373,437.53	868,505.81	32.022266	-103.277682
1,543.00	3.12	139.95	1,542.37	-14.18	15.48	373,434.11	868,509.22	32.022257	-103.277672
1,634.00	2.46	143.38	1,633.26	-17.65	18.24	373,430.65	868,511.98	32.022247	-103.277663
1,730.00	1.49	176.60	1,729.21	-20.55	19.54	373,427.75	868,513.28	32.022239	-103.277659
1,823.00	1.76	181.35	1,822.17	-23.18	19.58	373,425.12	868,513.32	32.022232	-103.277659
1,917.00	1.32	181.00	1,916.14	-25.71	19.53	373,422.59	868,513.26	32.022225	-103.277659
2,012.00	1.05	157.44	2,011.12	-27.61	19.84	373,420.69	868,513.58	32.022220	-103.277658
2,086.00	1.10	180.12	2,085.10	-28.94	20.10	373,419.36	868,513.84	32.022216	-103.277657
2,275.00	5.27	208.42	2,273.78	-38.39	15.96	373,409.90	868,509.70	32.022190	-103.277671
2,464.00	8.44	206.49	2,461.40	-58.45	5.64	373,389.85	868,499.38	32.022135	-103.277705
2,558.00	8.84	205.43	2,554.33	-71.14	-0.54	373,377.15	868,493.20	32.022101	-103.277725
2,653.00	8.79	204.64	2,648.21	-84.33	-6.70	373,363.96	868,487.04	32.022065	-103.277745
2,747.00	8.84	203.24	2,741.10	-97.50	-12.54	373,350.80	868,481.20	32.022029	-103.277765
2,842.00	8.66	200.78	2,835.00	-110.89	-17.96	373,337.40	868,475.78	32.021992	-103.277783
2,936.00	8.62	202.18	2,927.93	-124.03	-23.13	373,324.27	868,470.61	32.021956	-103.277800
3,031.00	8.44	204.12	3,021.88	-136.99	-28.67	373,311.31	868,465.07	32.021920	-103.277818
3,125.00	7.60	200.95	3,114.96	-149.09	-33.71	373,299.21	868,460.03	32.021887	-103.277835
3,220.00	6.15	193.04	3,209.28	-159.92	-37.10	373,288.38	868,456.64	32.021858	-103.277846
3,314.00	5.32	189.44	3,302.80	-169.12	-38.95	373,279.18	868,454.79	32.021832	-103.277852
3,408.00	4.66	185.83	3,396.45	-177.22	-40.06	373,271.08	868,453.68	32.021810	-103.277856
3,503.00	3.96	183.37	3,491.18	-184.33	-40.64	373,263.97	868,453.10	32.021791	-103.277858
3,597.00	4.26	184.34	3,584.94	-191.05	-41.10	373,257.25	868,452.64	32.021772	-103.277860
3,692.00	4.13	190.84	3,679.68	-197.93	-42.01	373,250.37	868,451.73	32.021753	-103.277863
3,786.00	4.31	188.21	3,773.43	-204.75	-43.15	373,243.55	868,450.59	32.021735	-103.277867
3,881.00	4.26	188.47	3,868.16	-211.77	-44.18	373,236.52	868,449.56	32.021715	-103.277870
3,975.00	4.18	192.16	3,961.91	-218.58	-45.41	373,229.72	868,448.33	32.021697	-103.277874
4,070.00	4.26	197.00	4,056.65	-225.34	-47.17	373,222.96	868,446.57	32.021678	-103.277880
4,164.00	4.09	202.27	4,150.40	-231.78	-49.47	373,216.52	868,444.27	32.021660	-103.277888
4,259.00	3.21	196.29	4,245.21	-237.46	-51.50	373,210.83	868,442.24	32.021645	-103.277895
4,353.00	1.01	165.18	4,339.14	-240.79	-52.02	373,207.51	868,441.72	32.021636	-103.277896
4,448.00	0.13	121.23	4,434.14	-241.66	-51.72	373,206.64	868,442.02	32.021633	-103.277896
4,542.00	0.09	171.95	4,528.14	-241.79	-51.61	373,206.51	868,442.13	32.021633	-103.277895
4,637.00	0.09	273.81	4,623.14	-241.86	-51.68	373,206.44	868,442.06	32.021633	-103.277895
4,731.00	0.09	206.93	4,717.14	-241.92	-51.78	373,206.38	868,441.95	32.021633	-103.277896
4,826.00	0.13	206.58	4,812.14	-242.08	-51.87	373,206.22	868,441.87	32.021632	-103.277896
4,920.00	0.13	218.97	4,906.14	-242.26	-51.98	373,206.04	868,441.76	32.021632	-103.277896
5,015.00	0.09	19.81	5,001.14	-242.27	-52.02	373,206.03	868,441.72	32.021632	-103.277897
5,110.00	0.13	73.07	5,096.14	-242.17	-51.90	373,206.13	868,441.84	32.021632	-103.277896
5,204.00	0.13	341.05	5,190.13	-242.04	-51.83	373,206.26	868,441.91	32.021632	-103.277896
5,298.00	0.13	131.08	5,284.13	-242.01	-51.78	373,206.29	868,441.96	32.021632	-103.277896
5,393.00	0.13	277.06	5,379.13	-242.06	-51.81	373,206.23	868,441.93	32.021632	-103.277896
5,487.00	0.09	211.50	5,473.13	-242.11	-51.95	373,206.18	868,441.79	32.021632	-103.277896
5,581.00	0.04	287.44	5,567.13	-242.17	-52.02	373,206.13	868,441.72	32.021632	-103.277897

Company:	Ameredev Operating LLC	**Local Co-ordinate Reference:**	Well 121H
Project:	Lea Co., NM (NAD 83 Grid)	**TVD Reference:**	RKB=27' @ 2951.00usft (H&P 616)
Site:	Camellia Fed Com 26-36-21	**MD Reference:**	RKB=27' @ 2951.00usft (H&P 616)
Well:	121H	**North Reference:**	Grid
Wellbore:	ST01	**Survey Calculation Method:**	Minimum Curvature
Design:	ST01	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,676.00	0.13	157.01	5,662.13	-242.26	-52.01	373,206.04	868,441.73	32.021632	-103.277897
5,771.00	0.09	265.99	5,757.13	-242.36	-52.04	373,205.94	868,441.70	32.021631	-103.277897
5,865.00	0.09	239.62	5,851.13	-242.40	-52.18	373,205.90	868,441.56	32.021631	-103.277897
5,960.00	0.13	314.33	5,946.13	-242.37	-52.32	373,205.93	868,441.42	32.021631	-103.277898
6,054.00	0.13	170.54	6,040.13	-242.40	-52.38	373,205.90	868,441.36	32.021631	-103.277898
6,149.00	0.13	290.86	6,135.13	-242.46	-52.46	373,205.83	868,441.27	32.021631	-103.277898
6,243.00	0.13	141.54	6,229.13	-242.51	-52.50	373,205.79	868,441.24	32.021631	-103.277898
6,338.00	0.13	130.20	6,324.13	-242.66	-52.35	373,205.63	868,441.39	32.021631	-103.277898
6,527.00	0.13	190.23	6,513.13	-243.01	-52.22	373,205.29	868,441.52	32.021630	-103.277897
6,621.00	0.13	271.44	6,607.13	-243.12	-52.35	373,205.18	868,441.39	32.021629	-103.277898
6,716.00	0.18	39.50	6,702.13	-243.00	-52.36	373,205.30	868,441.38	32.021630	-103.277898
6,810.00	0.09	206.66	6,796.13	-242.95	-52.30	373,205.35	868,441.44	32.021630	-103.277897
6,905.00	0.13	208.60	6,891.13	-243.11	-52.39	373,205.19	868,441.35	32.021629	-103.277898
6,999.00	0.13	59.01	6,985.13	-243.15	-52.35	373,205.15	868,441.39	32.021629	-103.277898
7,094.00	0.13	322.59	7,080.13	-243.01	-52.32	373,205.29	868,441.42	32.021630	-103.277898
7,189.00	0.18	297.98	7,175.13	-242.85	-52.52	373,205.45	868,441.22	32.021630	-103.277898
7,283.00	0.13	227.58	7,269.13	-242.86	-52.72	373,205.44	868,441.01	32.021630	-103.277899
7,378.00	0.13	91.88	7,364.13	-242.93	-52.70	373,205.37	868,441.04	32.021630	-103.277899
7,472.00	0.13	258.34	7,458.13	-242.96	-52.69	373,205.34	868,441.04	32.021630	-103.277899
7,566.00	0.13	241.12	7,552.13	-243.03	-52.89	373,205.27	868,440.85	32.021630	-103.277899
7,661.00	0.13	180.82	7,647.13	-243.19	-52.99	373,205.11	868,440.75	32.021629	-103.277900
7,755.00	0.13	10.76	7,741.13	-243.19	-52.97	373,205.11	868,440.77	32.021629	-103.277900
7,850.00	0.13	130.99	7,836.13	-243.16	-52.87	373,205.14	868,440.87	32.021629	-103.277899
7,945.00	0.13	318.11	7,931.13	-243.15	-52.86	373,205.15	868,440.88	32.021629	-103.277899
8,039.00	0.18	63.49	8,025.13	-243.00	-52.80	373,205.30	868,440.94	32.021630	-103.277899
8,133.00	0.44	56.20	8,119.13	-242.73	-52.37	373,205.56	868,441.37	32.021630	-103.277898
8,228.00	0.62	61.47	8,214.12	-242.29	-51.61	373,206.01	868,442.13	32.021632	-103.277895
8,322.00	0.79	69.03	8,308.12	-241.81	-50.56	373,206.49	868,443.18	32.021633	-103.277892
8,417.00	0.79	71.66	8,403.11	-241.37	-49.33	373,206.93	868,444.41	32.021634	-103.277888
8,511.00	0.57	68.24	8,497.10	-240.99	-48.28	373,207.30	868,445.46	32.021635	-103.277884
8,606.00	0.48	46.53	8,592.10	-240.54	-47.55	373,207.75	868,446.19	32.021636	-103.277882
8,706.00	0.70	24.82	8,692.09	-239.70	-46.99	373,208.60	868,446.75	32.021639	-103.277880
8,801.00	0.79	9.00	8,787.09	-238.53	-46.64	373,209.77	868,447.10	32.021642	-103.277879
8,895.00	0.88	352.30	8,881.08	-237.17	-46.64	373,211.12	868,447.10	32.021646	-103.277879
8,990.00	0.97	329.89	8,976.06	-235.75	-47.14	373,212.54	868,446.60	32.021649	-103.277881
9,078.00	1.23	316.26	9,064.05	-234.43	-48.17	373,213.87	868,445.57	32.021653	-103.277884
9,145.00	0.04	204.47	9,131.04	-233.93	-48.67	373,214.37	868,445.07	32.021655	-103.277885
9,621.00	0.05	158.77	9,607.04	-234.27	-48.67	373,214.02	868,445.07	32.021654	-103.277885
10,091.00	0.03	129.79	10,077.04	-234.54	-48.50	373,213.75	868,445.24	32.021653	-103.277885
10,564.00	0.02	40.40	10,550.04	-234.56	-48.35	373,213.74	868,445.39	32.021653	-103.277884
10,966.00	0.18	295.61	10,952.04	-234.23	-48.87	373,214.06	868,444.87	32.021654	-103.277886
11,061.00	0.22	134.24	11,047.04	-234.30	-48.88	373,214.00	868,444.86	32.021654	-103.277886
11,155.00	0.18	287.88	11,141.04	-234.38	-48.89	373,213.92	868,444.85	32.021653	-103.277886
11,249.00	0.26	240.77	11,235.04	-234.44	-49.21	373,213.86	868,444.52	32.021653	-103.277887
11,344.00	0.22	172.12	11,330.04	-234.72	-49.38	373,213.58	868,444.36	32.021652	-103.277888
11,438.00	0.13	42.31	11,424.04	-234.82	-49.28	373,213.48	868,444.46	32.021652	-103.277887
11,533.00	0.18	283.30	11,519.04	-234.71	-49.35	373,213.59	868,444.39	32.021652	-103.277888
11,627.00	0.18	171.33	11,613.04	-234.82	-49.48	373,213.48	868,444.26	32.021652	-103.277888
11,680.00	0.18	152.96	11,666.04	-234.98	-49.43	373,213.32	868,444.31	32.021652	-103.277888
11,786.00	0.17	155.43	11,772.04	-235.27	-49.28	373,213.03	868,444.46	32.021651	-103.277887
11,849.00	0.35	298.57	11,835.04	-235.26	-49.41	373,213.04	868,444.33	32.021651	-103.277888
11,881.00	1.68	9.11	11,867.03	-234.75	-49.43	373,213.55	868,444.31	32.021652	-103.277888
11,912.00	4.51	13.54	11,897.98	-233.12	-49.07	373,215.18	868,444.67	32.021657	-103.277887
11,944.00	7.01	13.50	11,929.82	-230.00	-48.32	373,218.30	868,445.42	32.021665	-103.277884
11,973.00	9.23	10.17	11,958.53	-225.98	-47.49	373,222.31	868,446.25	32.021676	-103.277881

Company:	Ameredev Operating LLC	**Local Co-ordinate Reference:**	Well 121H
Project:	Lea Co., NM (NAD 83 Grid)	**TVD Reference:**	RKB=27' @ 2951.00usft (H&P 616)
Site:	Camellia Fed Com 26-36-21	**MD Reference:**	RKB=27' @ 2951.00usft (H&P 616)
Well:	121H	**North Reference:**	Grid
Wellbore:	ST01	**Survey Calculation Method:**	Minimum Curvature
Design:	ST01	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
12,006.00	11.76	7.30	11,990.97	-220.04	-46.60	373,228.26	868,447.14	32.021693	-103.277878
12,038.00	16.11	4.77	12,022.02	-212.38	-45.82	373,235.92	868,447.92	32.021714	-103.277876
12,069.00	20.87	3.52	12,051.42	-202.58	-45.12	373,245.72	868,448.62	32.021741	-103.277873
12,100.00	26.23	3.72	12,079.82	-190.22	-44.33	373,258.08	868,449.41	32.021775	-103.277870
12,132.00	31.49	4.87	12,107.84	-174.83	-43.16	373,273.47	868,450.57	32.021817	-103.277866
12,163.00	35.57	3.69	12,133.68	-157.75	-41.90	373,290.55	868,451.84	32.021864	-103.277861
12,195.00	39.59	358.94	12,159.04	-138.26	-41.49	373,310.04	868,452.25	32.021917	-103.277859
12,226.00	41.92	354.10	12,182.52	-118.07	-42.73	373,330.22	868,451.01	32.021973	-103.277863
12,258.00	44.65	352.60	12,205.82	-96.29	-45.28	373,352.01	868,448.46	32.022033	-103.277870
12,289.00	47.58	352.67	12,227.30	-74.13	-48.14	373,374.17	868,445.59	32.022094	-103.277879
12,321.00	49.64	353.25	12,248.46	-50.30	-51.09	373,397.99	868,442.65	32.022159	-103.277887
12,352.00	51.03	354.96	12,268.25	-26.57	-53.53	373,421.73	868,440.21	32.022225	-103.277895
12,384.00	54.56	356.97	12,287.60	-1.15	-55.31	373,447.15	868,438.42	32.022294	-103.277900
12,415.00	58.72	359.26	12,304.64	24.72	-56.15	373,473.02	868,437.59	32.022366	-103.277901
12,446.00	63.49	0.38	12,319.62	51.85	-56.23	373,500.15	868,437.51	32.022440	-103.277901
12,478.00	69.02	0.09	12,332.50	81.13	-56.11	373,529.43	868,437.62	32.022521	-103.277900
12,510.00	73.31	1.19	12,342.82	111.41	-55.77	373,559.71	868,437.97	32.022604	-103.277897
12,541.00	76.36	1.25	12,350.93	141.32	-55.14	373,589.62	868,438.60	32.022686	-103.277894
12,573.00	80.46	1.60	12,357.36	172.65	-54.36	373,620.95	868,439.38	32.022772	-103.277891
12,604.00	86.66	1.84	12,360.84	203.43	-53.43	373,651.72	868,440.31	32.022857	-103.277887
12,651.00	84.58	8.27	12,364.43	250.08	-49.31	373,698.38	868,444.43	32.022985	-103.277872
First ST01 Survey									
12,683.00	87.64	12.10	12,366.60	281.49	-43.66	373,729.79	868,450.08	32.023071	-103.277853
12,714.00	90.36	13.80	12,367.14	311.69	-36.72	373,759.99	868,457.02	32.023154	-103.277830
12,746.00	91.21	13.86	12,366.70	342.76	-29.07	373,791.06	868,464.67	32.023239	-103.277804
12,840.00	92.47	10.32	12,363.68	434.61	-9.39	373,882.91	868,484.35	32.023491	-103.277738
12,935.00	90.93	9.02	12,360.87	528.22	6.56	373,976.52	868,500.30	32.023748	-103.277683
13,029.00	89.92	6.85	12,360.17	621.31	19.53	374,069.61	868,513.27	32.024003	-103.277638
13,124.00	95.31	7.96	12,355.84	715.38	31.76	374,163.68	868,525.50	32.024262	-103.277596
13,219.00	92.75	6.01	12,349.16	809.43	43.28	374,257.73	868,537.02	32.024520	-103.277556
13,300.13	91.10	5.16	12,346.43	890.13	51.17	374,338.43	868,544.91	32.024741	-103.277528
FTP @ 13300.13' MD/ 91.10° INC/ 5.16° AZM									
13,313.00	90.84	5.03	12,346.21	902.95	52.31	374,351.24	868,546.05	32.024777	-103.277524
13,408.00	91.20	5.41	12,344.52	997.54	60.95	374,445.83	868,554.69	32.025036	-103.277493
13,502.00	91.82	3.50	12,342.05	1,091.22	68.25	374,539.51	868,561.99	32.025294	-103.277466
13,597.00	91.40	3.37	12,339.38	1,186.01	73.94	374,634.31	868,567.68	32.025554	-103.277445
13,691.00	91.54	0.96	12,336.97	1,279.90	77.49	374,728.20	868,571.23	32.025812	-103.277431
13,786.00	89.94	359.50	12,335.74	1,374.89	77.87	374,823.19	868,571.61	32.026073	-103.277426
13,880.00	94.46	359.36	12,332.13	1,468.79	76.94	374,917.09	868,570.68	32.026331	-103.277427
13,976.00	89.86	356.71	12,328.51	1,564.63	73.65	375,012.93	868,567.39	32.026595	-103.277434
14,071.00	96.76	357.71	12,323.03	1,659.30	69.03	375,107.60	868,562.77	32.026855	-103.277446
14,166.00	96.38	356.10	12,312.16	1,753.54	63.94	375,201.83	868,557.68	32.027114	-103.277460
14,261.00	94.94	356.08	12,302.79	1,847.85	57.49	375,296.15	868,551.23	32.027373	-103.277477
14,356.00	92.16	355.43	12,296.91	1,942.40	50.47	375,390.70	868,544.21	32.027634	-103.277497
14,451.00	92.24	358.83	12,293.26	2,037.19	45.72	375,485.49	868,539.46	32.027894	-103.277509
14,546.00	94.54	1.76	12,287.64	2,132.01	46.20	375,580.31	868,539.94	32.028155	-103.277505
14,641.00	91.35	0.43	12,282.76	2,226.85	48.02	375,675.15	868,541.75	32.028415	-103.277496
14,736.00	85.43	2.30	12,285.43	2,321.74	50.27	375,770.04	868,544.01	32.028676	-103.277486
14,836.00	85.82	2.74	12,293.06	2,421.35	54.66	375,869.65	868,548.40	32.028950	-103.277468
14,931.00	85.60	3.11	12,300.17	2,515.96	59.49	375,964.26	868,553.23	32.029210	-103.277450
15,026.00	87.50	2.93	12,305.88	2,610.66	64.49	376,058.95	868,558.23	32.029470	-103.277431
15,121.00	91.43	2.05	12,306.77	2,705.54	68.61	376,153.84	868,562.35	32.029731	-103.277414
15,215.00	93.09	1.85	12,303.06	2,799.41	71.81	376,247.71	868,565.55	32.029988	-103.277401
15,310.00	94.94	0.24	12,296.41	2,894.16	73.54	376,342.45	868,567.28	32.030249	-103.277393
15,405.00	93.25	359.72	12,289.63	2,988.91	73.51	376,437.21	868,567.25	32.030509	-103.277390

Company:	Ameredev Operating LLC	**Local Co-ordinate Reference:**	Well 121H
Project:	Lea Co., NM (NAD 83 Grid)	**TVD Reference:**	RKB=27' @ 2951.00usft (H&P 616)
Site:	Camellia Fed Com 26-36-21	**MD Reference:**	RKB=27' @ 2951.00usft (H&P 616)
Well:	121H	**North Reference:**	Grid
Wellbore:	ST01	**Survey Calculation Method:**	Minimum Curvature
Design:	ST01	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,500.00	94.43	359.76	12,283.27	3,083.69	73.08	376,531.99	868,566.82	32.030770	-103.277388
15,595.00	94.91	359.91	12,275.53	3,178.38	72.80	376,626.68	868,566.54	32.031030	-103.277386
15,690.00	94.38	359.97	12,267.84	3,273.07	72.70	376,721.36	868,566.44	32.031290	-103.277383
15,785.00	95.27	0.05	12,259.85	3,367.73	72.72	376,816.03	868,566.46	32.031550	-103.277380
15,880.00	94.96	359.74	12,251.38	3,462.35	72.55	376,910.65	868,566.29	32.031811	-103.277378
15,975.00	95.44	359.98	12,242.77	3,556.96	72.32	377,005.26	868,566.06	32.032071	-103.277376
16,070.00	93.36	3.06	12,235.48	3,651.63	74.83	377,099.93	868,568.57	32.032331	-103.277364
16,165.00	95.79	4.01	12,227.90	3,746.14	80.67	377,194.43	868,574.41	32.032590	-103.277343
16,260.00	96.17	7.76	12,218.00	3,840.10	90.35	377,288.40	868,584.09	32.032848	-103.277308
16,355.00	98.01	5.12	12,206.27	3,933.77	100.93	377,382.07	868,594.67	32.033106	-103.277271
16,450.00	97.64	0.31	12,193.33	4,027.75	105.39	377,476.05	868,599.12	32.033364	-103.277254
16,545.00	96.06	357.46	12,182.00	4,122.04	103.55	377,570.34	868,597.29	32.033623	-103.277257
16,640.00	96.45	359.89	12,171.65	4,216.44	101.36	377,664.74	868,595.10	32.033882	-103.277261
16,735.00	95.72	357.48	12,161.57	4,310.88	99.19	377,759.17	868,592.93	32.034142	-103.277265
16,830.00	96.01	353.90	12,151.86	4,405.10	92.09	377,853.39	868,585.83	32.034401	-103.277285
16,925.00	95.67	352.83	12,142.20	4,498.97	81.17	377,947.27	868,574.91	32.034660	-103.277317
17,020.00	96.00	353.33	12,132.54	4,592.79	69.79	378,041.08	868,563.53	32.034918	-103.277351
17,115.00	95.47	353.90	12,123.05	4,686.72	59.27	378,135.02	868,553.01	32.035176	-103.277382
17,210.00	95.81	356.73	12,113.71	4,780.94	51.55	378,229.24	868,545.29	32.035435	-103.277404
17,305.00	95.81	359.42	12,104.09	4,875.39	48.38	378,323.69	868,542.12	32.035695	-103.277411
17,400.00	96.26	358.30	12,094.10	4,969.84	46.50	378,418.14	868,540.24	32.035955	-103.277414
17,495.00	94.79	356.44	12,084.95	5,064.29	42.16	378,512.59	868,535.90	32.036214	-103.277425
17,590.00	93.36	355.39	12,078.20	5,158.81	35.41	378,607.11	868,529.15	32.036474	-103.277444
17,685.00	92.61	357.87	12,073.25	5,253.51	29.83	378,701.81	868,523.57	32.036735	-103.277459
17,780.00	90.53	359.13	12,070.65	5,348.43	27.35	378,796.73	868,521.09	32.036996	-103.277464
17,875.00	91.60	358.33	12,068.89	5,443.39	25.24	378,891.69	868,518.98	32.037257	-103.277468
17,970.00	88.46	357.93	12,068.84	5,538.33	22.14	378,986.63	868,515.88	32.037518	-103.277475
18,071.00	88.04	358.65	12,071.92	5,639.23	19.13	379,087.53	868,512.87	32.037795	-103.277482
18,166.00	89.13	0.20	12,074.27	5,734.20	18.18	379,182.49	868,511.92	32.038056	-103.277482
18,261.00	88.80	1.86	12,075.98	5,829.16	19.88	379,277.46	868,513.62	32.038317	-103.277473
18,356.00	90.17	2.83	12,076.84	5,924.08	23.77	379,372.37	868,517.51	32.038578	-103.277458
18,451.00	92.35	2.26	12,074.75	6,018.95	27.99	379,467.25	868,521.73	32.038839	-103.277441
18,545.00	93.81	2.38	12,069.70	6,112.74	31.79	379,561.04	868,525.53	32.039096	-103.277426
18,640.00	92.75	0.46	12,064.26	6,207.55	34.14	379,655.85	868,527.88	32.039357	-103.277415
18,735.00	93.28	359.53	12,059.26	6,302.41	34.13	379,750.71	868,527.87	32.039618	-103.277412
18,830.00	94.37	358.79	12,052.93	6,397.19	32.74	379,845.49	868,526.48	32.039878	-103.277414
18,925.00	95.14	358.50	12,045.05	6,491.84	30.50	379,940.13	868,524.24	32.040138	-103.277418
19,020.00	95.16	358.71	12,036.52	6,586.42	28.20	380,034.72	868,521.94	32.040398	-103.277422
19,115.00	94.23	359.32	12,028.75	6,681.09	26.57	380,129.39	868,520.31	32.040659	-103.277425
19,210.00	93.17	358.94	12,022.62	6,775.88	25.13	380,224.18	868,518.87	32.040919	-103.277426
19,304.00	92.61	0.13	12,017.88	6,869.75	24.37	380,318.05	868,518.11	32.041177	-103.277426
19,399.00	92.52	359.27	12,013.63	6,964.66	23.87	380,412.96	868,517.61	32.041438	-103.277424
19,494.00	89.86	359.17	12,011.65	7,059.62	22.58	380,507.92	868,516.32	32.041699	-103.277426
19,589.00	88.77	357.92	12,012.79	7,154.58	20.17	380,602.88	868,513.91	32.041960	-103.277430
19,684.00	92.44	358.22	12,011.79	7,249.50	16.97	380,697.80	868,510.71	32.042221	-103.277438
19,779.00	92.13	357.63	12,008.00	7,344.37	13.53	380,792.66	868,507.27	32.042482	-103.277446
19,874.00	92.30	358.62	12,004.33	7,439.24	10.43	380,887.54	868,504.17	32.042743	-103.277453
19,969.00	91.51	359.95	12,001.17	7,534.18	9.24	380,982.48	868,502.98	32.043004	-103.277454
20,064.00	89.69	1.86	12,000.17	7,629.15	10.74	381,077.45	868,504.48	32.043265	-103.277446
20,159.00	89.75	2.54	12,000.64	7,724.08	14.39	381,172.38	868,508.13	32.043526	-103.277431
20,254.00	90.20	1.09	12,000.68	7,819.03	17.40	381,267.33	868,511.14	32.043786	-103.277418
20,348.00	91.40	0.72	11,999.37	7,913.01	18.88	381,361.31	868,512.62	32.044045	-103.277411
20,443.00	90.79	0.53	11,997.55	8,007.99	19.92	381,456.28	868,513.66	32.044306	-103.277404
20,538.00	89.80	0.19	11,997.06	8,102.98	20.51	381,551.28	868,514.25	32.044567	-103.277399
20,634.00	92.19	0.97	11,995.40	8,198.95	21.49	381,647.25	868,515.23	32.044831	-103.277393

Company:	Ameredev Operating LLC	**Local Co-ordinate Reference:**	Well 121H
Project:	Lea Co., NM (NAD 83 Grid)	**TVD Reference:**	RKB=27' @ 2951.00usft (H&P 616)
Site:	Camellia Fed Com 26-36-21	**MD Reference:**	RKB=27' @ 2951.00usft (H&P 616)
Well:	121H	**North Reference:**	Grid
Wellbore:	ST01	**Survey Calculation Method:**	Minimum Curvature
Design:	ST01	**Database:**	EDM 5000.1 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
20,729.00	89.52	0.20	11,993.98	8,293.93	22.46	381,742.23	868,516.20	32.045092	-103.277387
20,824.00	91.76	0.25	11,992.92	8,388.92	22.83	381,837.21	868,516.57	32.045353	-103.277383
20,919.00	89.44	0.99	11,991.92	8,483.90	23.86	381,932.20	868,517.60	32.045614	-103.277377
21,014.00	91.48	1.90	11,991.16	8,578.86	26.25	382,027.16	868,519.99	32.045875	-103.277366
21,109.00	92.13	0.25	11,988.17	8,673.79	28.03	382,122.09	868,521.77	32.046136	-103.277357
21,204.00	93.23	359.74	11,983.73	8,768.69	28.03	382,216.98	868,521.76	32.046396	-103.277354
21,299.00	89.75	356.86	11,981.26	8,863.59	25.21	382,311.89	868,518.95	32.046657	-103.277360
21,353.00	88.43	356.59	11,982.11	8,917.49	22.12	382,365.79	868,515.86	32.046805	-103.277368
21,448.00	87.71	356.74	11,985.31	9,012.28	16.60	382,460.57	868,510.34	32.047066	-103.277383
21,543.00	89.41	357.87	11,987.70	9,107.14	12.13	382,555.43	868,505.87	32.047327	-103.277395
21,638.00	89.24	358.16	11,988.82	9,202.07	8.84	382,650.37	868,502.58	32.047588	-103.277402
21,733.00	89.30	357.72	11,990.03	9,297.00	5.43	382,745.30	868,499.17	32.047849	-103.277410
21,828.00	90.08	358.29	11,990.54	9,391.94	2.12	382,840.24	868,495.86	32.048110	-103.277418
21,923.00	90.08	358.45	11,990.41	9,486.90	-0.58	382,935.20	868,493.16	32.048371	-103.277424
22,017.00	89.36	1.43	11,990.87	9,580.89	-0.68	383,029.19	868,493.06	32.048629	-103.277421
22,112.00	88.82	0.70	11,992.38	9,675.86	1.09	383,124.16	868,494.83	32.048890	-103.277412
22,207.00	87.31	358.12	11,995.59	9,770.79	0.11	383,219.09	868,493.85	32.049151	-103.277413
22,302.00	90.20	357.78	11,997.65	9,865.70	-3.29	383,314.00	868,490.45	32.049412	-103.277420
22,397.00	90.79	357.67	11,996.83	9,960.62	-7.06	383,408.92	868,486.68	32.049673	-103.277430
22,492.00	90.67	358.60	11,995.62	10,055.56	-10.15	383,503.86	868,483.59	32.049934	-103.277437
22,564.00	91.99	359.20	11,993.95	10,127.53	-11.53	383,575.82	868,482.21	32.050132	-103.277439
Last ST01 Survey @ 22564'									
22,615.28	91.99	359.20	11,992.17	10,178.77	-12.25	383,627.07	868,481.49	32.050273	-103.277440
LTP @ 22615.28' MD/ 91.99° INC/ 359.20° AZM									
22,641.00	91.99	359.20	11,991.28	10,204.47	-12.61	383,652.77	868,481.13	32.050344	-103.277440
PTB @ 22641'									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
12,651.00	12,364.43	250.08	-49.31	First ST01 Survey
13,300.13	12,346.43	890.13	51.17	FTP @ 13300.13' MD/ 91.10° INC/ 5.16° AZM
22,564.00	11,993.95	10,127.53	-11.53	Last ST01 Survey @ 22564'
22,615.28	11,992.17	10,178.77	-12.25	LTP @ 22615.28' MD/ 91.99° INC/ 359.20° AZM
22,641.00	11,991.28	10,204.47	-12.61	PTB @ 22641'

Checked By: _____ Approved By: _____ Date: _____