

KZ

October 2, 2020



**END OF WELL
REPORT
FOR**

**STEWARD ENERGY
Felina Fee 5H
LeaCounty, NM
DM-2020-093-SED-T-NM**



PLAN vs ACTUAL

SURVEYS

BOTTOM HOLE ASSEMBLIES

SLIDE REPORTS

DAILY REPORTS

Steward Energy II, LLC

DrilTech, LLC

Steward Energy II, LLC
Felina Fee 5H
Wellbore #1
Plan #3
Norton 6



SURFACE LOCATION

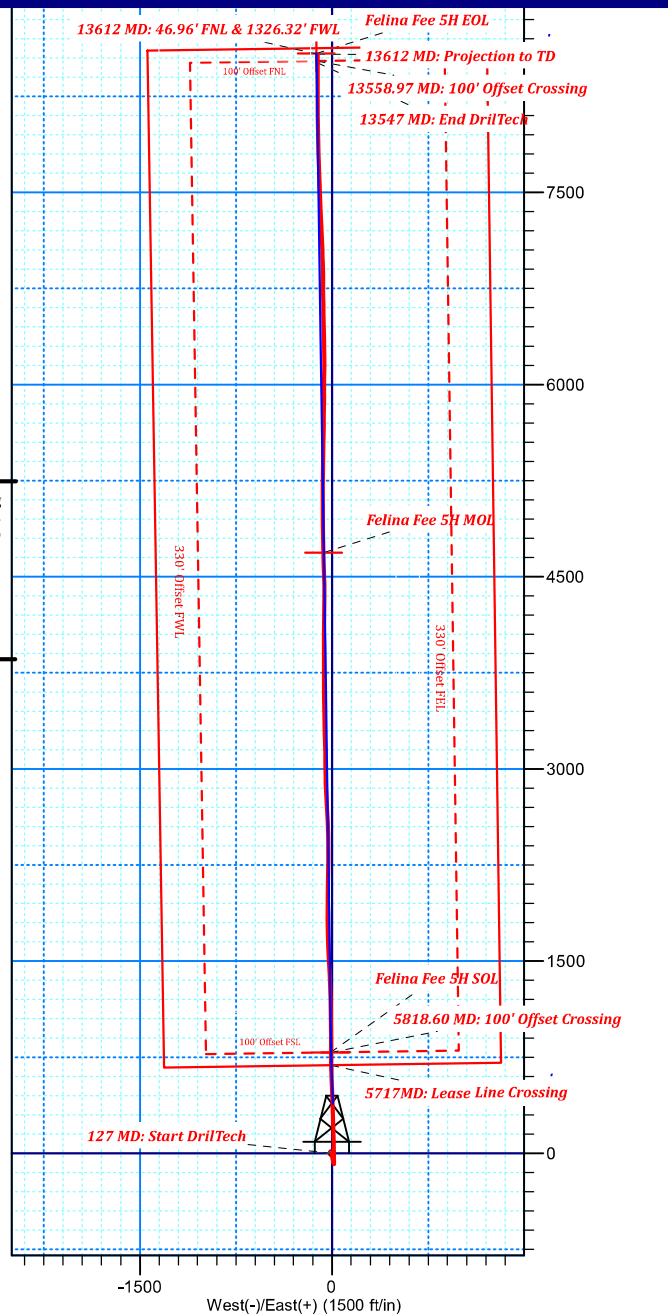
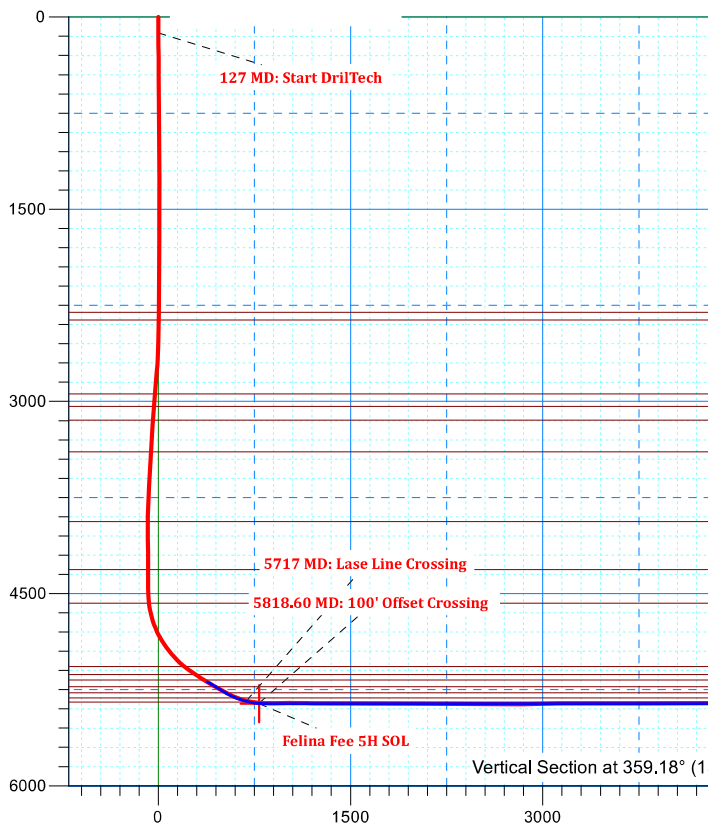
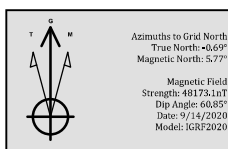
US State Plane 1983
 New Mexico Eastern Zone
 Elevation: GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
 Northing 788362.67 Easting 927371.63 Latitude 33.161 Longitude -103.072

WELLBORE TARGET DETAILS (MAP CO-ORDINATES)

Name	TVD	+N/-S	+E/-W	Northing	Easting
Felina Fee 5H EOL	5361.00	8585.18	-121.88	796947.83	927249.75
Felina Fee 5H MOL	5361.00	4686.47	-66.34	793049.13	927305.29
Felina Fee 5H SOL	5361.00	787.77	-10.80	789150.44	927360.83

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect
5378.00	59.18	358.00	5191.77	384.27	5.70	0.00	384.15
5550.27	59.18	358.00	5280.03	532.12	0.54	0.00	532.06
5858.66	90.00	359.15	5361.00	825.77	-6.54	10.00	825.77
13618.93	90.00	359.15	5361.00	8585.18	-121.88	0.00	8586.04



Steward Energy II, LLC

Lea County, NM (NAD 83) NM East Zone

Felina Fee 5H

Felina Fee 5H

Wellbore #1

Design: Wellbore #1

Standard Survey Report

30 September, 2020

Survey Report

Company:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Felina Fee 5H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Site:	Felina Fee 5H	MD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Well:	Felina Fee 5H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM

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

Site	Felina Fee 5H			
Site Position:		Northing:	788,362.67 usft	Latitude: 33.161
From: Map		Easting:	927,371.63 usft	Longitude: -103.072
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	

Well	Felina Fee 5H			
Well Position	+N/-S	0.00 ft	Northing:	788,362.67 usft
	+E/-W	0.00 ft	Easting:	927,371.63 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft	Ground Level: 3,799.00 ft
Grid Convergence:	0.69 °			

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	9/14/2020	6.46	60.85	48,173.14825664

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	359.18	

Survey Program	Date	9/30/2020			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
127.00	13,612.00	DrilTech MWD (Wellbore #1)	MWD	MWD - Standard	

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
127.00	0.62	60.26	127.00	0.34	0.60	0.33	0.49	0.49	0.00	
127 MD: Start DrilTech										
221.00	0.97	35.83	220.99	1.24	1.50	1.22	0.51	0.37	-25.99	
312.00	1.23	41.01	311.97	2.60	2.60	2.56	0.31	0.29	5.69	
403.00	0.62	16.58	402.96	3.81	3.38	3.76	0.78	-0.67	-26.85	
495.00	0.70	70.81	494.95	4.47	4.05	4.41	0.66	0.09	58.95	
588.00	0.62	62.46	587.95	4.89	5.03	4.82	0.13	-0.09	-8.98	
682.00	0.62	25.19	681.94	5.59	5.70	5.50	0.42	0.00	-39.65	
778.00	0.44	80.21	777.94	6.12	6.28	6.03	0.54	-0.19	57.31	

Survey Report

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Site:	Felina Fee 5H	MD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Well:	Felina Fee 5H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
872.00	0.62	45.50	871.94	6.54	7.00	6.43	0.38	0.19	-36.93
967.00	0.18	219.43	966.93	6.78	7.27	6.68	0.84	-0.46	183.08
1,062.00	0.35	301.35	1,061.93	6.82	6.93	6.72	0.39	0.18	86.23
1,156.00	0.44	61.49	1,155.93	7.14	7.00	7.04	0.73	0.10	127.81
1,250.00	0.53	357.77	1,249.93	7.74	7.30	7.64	0.55	0.10	-67.79
1,343.00	0.26	66.85	1,342.93	8.26	7.48	8.15	0.54	-0.29	74.28
1,437.00	0.26	196.49	1,436.93	8.14	7.62	8.03	0.50	0.00	137.91
1,529.00	0.53	249.23	1,528.93	7.79	7.16	7.68	0.46	0.29	57.33
1,624.00	0.44	301.35	1,623.92	7.82	6.44	7.73	0.46	-0.09	54.86
1,718.00	0.44	266.72	1,717.92	7.99	5.77	7.90	0.28	0.00	-36.84
1,814.00	0.53	174.70	1,813.92	7.52	5.44	7.45	0.73	0.09	-95.85
1,909.00	0.53	194.91	1,908.91	6.66	5.37	6.58	0.20	0.00	21.27
2,002.00	0.44	263.11	2,001.91	6.20	4.90	6.13	0.59	-0.10	73.33
2,094.00	0.62	191.66	2,093.91	5.67	4.45	5.61	0.69	0.20	-77.66
2,187.00	0.62	190.60	2,186.90	4.69	4.26	4.62	0.01	0.00	-1.14
2,281.00	0.70	188.67	2,280.90	3.62	4.08	3.56	0.09	0.09	-2.05
2,350.00	0.44	109.13	2,349.89	3.11	4.27	3.05	1.10	-0.38	-115.28
2,464.00	0.35	170.04	2,463.89	2.63	4.74	2.56	0.36	-0.08	53.43
2,580.00	1.67	196.58	2,579.87	0.66	4.32	0.60	1.18	1.14	22.88
2,674.00	3.25	183.57	2,673.78	-3.31	3.76	-3.37	1.77	1.68	-13.84
2,768.00	5.01	181.64	2,767.53	-10.08	3.48	-10.12	1.88	1.87	-2.05
2,862.00	5.10	184.63	2,861.17	-18.34	3.02	-18.38	0.30	0.10	3.18
2,956.00	5.10	180.58	2,954.80	-26.69	2.64	-26.72	0.38	0.00	-4.31
3,050.00	4.92	178.21	3,048.44	-34.89	2.73	-34.93	0.29	-0.19	-2.52
3,143.00	4.04	167.49	3,141.15	-42.08	3.56	-42.12	1.30	-0.95	-11.53
3,238.00	3.96	158.88	3,235.92	-48.40	5.47	-48.48	0.64	-0.08	-9.06
3,332.00	3.17	166.87	3,329.74	-53.96	7.23	-54.06	0.99	-0.84	8.50
3,426.00	2.99	173.99	3,423.61	-58.93	8.08	-59.04	0.45	-0.19	7.57
3,521.00	3.08	171.18	3,518.47	-63.92	8.73	-64.04	0.18	0.09	-2.96
3,616.00	2.55	174.52	3,613.36	-68.54	9.32	-68.67	0.58	-0.56	3.52
3,711.00	3.52	155.01	3,708.23	-73.29	10.75	-73.44	1.48	1.02	-20.54
3,805.00	2.73	158.35	3,802.09	-77.99	12.80	-78.16	0.86	-0.84	3.55
3,899.00	1.58	136.29	3,896.02	-81.00	14.52	-81.20	1.49	-1.22	-23.47
3,992.00	0.53	3.05	3,989.01	-81.50	15.43	-81.71	2.13	-1.13	-143.27
4,086.00	0.88	344.15	4,083.00	-80.37	15.25	-80.58	0.44	0.37	-20.11
4,181.00	1.06	351.97	4,177.99	-78.80	14.93	-79.01	0.23	0.19	8.23
4,276.00	0.35	63.51	4,272.98	-77.80	15.07	-78.01	1.06	-0.75	75.31
4,371.00	0.26	105.70	4,367.98	-77.73	15.54	-77.95	0.25	-0.09	44.41
4,466.00	0.35	80.30	4,462.98	-77.74	16.03	-77.96	0.17	0.09	-26.74
4,529.00	1.67	357.95	4,525.97	-76.79	16.19	-77.01	2.63	2.10	-130.71
4,561.00	4.40	359.18	4,557.92	-75.10	16.15	-75.32	8.53	8.53	3.84
4,592.00	7.39	356.54	4,588.75	-71.92	16.02	-72.14	9.68	9.65	-8.52
4,623.00	10.38	356.10	4,619.38	-67.14	15.71	-67.36	9.65	9.65	-1.42

Survey Report

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Site:	Felina Fee 5H	MD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Well:	Felina Fee 5H	North Reference:	Grid
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Design:	Wellbore #1	Database:	EDM

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
4,656.00	13.63	356.98	4,651.65	-60.29	15.30	-60.50	9.86	9.85	2.67	
4,686.00	16.44	358.56	4,680.62	-52.51	15.01	-52.72	9.46	9.37	5.27	
4,718.00	18.20	359.09	4,711.17	-42.99	14.81	-43.20	5.52	5.50	1.66	
4,749.00	19.61	0.32	4,740.50	-32.95	14.76	-33.15	4.73	4.55	3.97	
4,780.00	22.07	0.58	4,769.47	-21.92	14.85	-22.13	7.94	7.94	0.84	
4,810.00	24.80	1.29	4,796.99	-9.99	15.05	-10.21	9.15	9.10	2.37	
4,842.00	27.52	1.29	4,825.71	4.11	15.37	3.89	8.50	8.50	0.00	
4,874.00	30.07	0.76	4,853.75	19.52	15.64	19.30	8.01	7.97	-1.66	
4,906.00	32.45	359.53	4,881.10	36.13	15.68	35.90	7.70	7.44	-3.84	
4,937.00	34.56	358.91	4,906.95	53.24	15.44	53.01	6.90	6.81	-2.00	
4,968.00	36.67	358.56	4,932.15	71.28	15.04	71.06	6.84	6.81	-1.13	
4,999.00	38.95	358.21	4,956.64	90.28	14.50	90.06	7.39	7.35	-1.13	
5,031.00	41.06	358.56	4,981.15	110.84	13.93	110.63	6.63	6.59	1.09	
5,061.00	43.35	358.91	5,003.37	130.99	13.48	130.78	7.67	7.63	1.17	
5,093.00	45.73	358.74	5,026.18	153.43	13.02	153.22	7.45	7.44	-0.53	
5,125.00	47.92	358.04	5,048.07	176.75	12.36	176.56	7.03	6.84	-2.19	
5,156.00	50.12	357.51	5,068.40	200.13	11.45	199.95	7.21	7.10	-1.71	
5,188.00	52.23	357.60	5,088.46	225.04	10.39	224.87	6.60	6.59	0.28	
5,220.00	54.43	358.04	5,107.57	250.69	9.42	250.53	6.96	6.88	1.38	
5,252.00	56.28	358.65	5,125.76	277.00	8.66	276.85	5.99	5.78	1.91	
5,283.00	58.21	358.74	5,142.53	303.06	8.06	302.92	6.23	6.23	0.29	
5,315.00	58.65	358.55	5,159.29	330.32	7.42	330.18	1.47	1.38	-0.59	
5,346.00	59.00	358.10	5,175.34	356.83	6.64	356.70	1.68	1.13	-1.45	
5,378.00	59.18	358.00	5,191.77	384.27	5.71	384.15	0.62	0.56	-0.31	
5,410.00	59.27	357.91	5,208.15	411.75	4.73	411.64	0.37	0.28	-0.28	
5,441.00	59.36	357.56	5,223.97	438.39	3.67	438.29	1.01	0.29	-1.13	
5,473.00	59.53	357.47	5,240.23	465.92	2.48	465.83	0.58	0.53	-0.28	
5,505.00	59.71	357.30	5,256.42	493.49	1.22	493.43	0.73	0.56	-0.53	
5,536.00	60.32	357.56	5,271.91	520.32	0.02	520.26	2.10	1.97	0.84	
5,568.00	62.78	357.56	5,287.15	548.43	-1.18	548.39	7.69	7.69	0.00	
5,600.00	66.21	357.74	5,300.93	577.28	-2.37	577.25	10.73	10.72	0.56	
5,631.00	69.20	357.91	5,312.69	605.94	-3.45	605.92	9.66	9.65	0.55	
5,663.00	71.23	358.18	5,323.52	636.03	-4.48	636.03	6.39	6.34	0.84	
5,693.00	73.69	358.53	5,332.56	664.62	-5.30	664.63	8.28	8.20	1.17	
5,717.00	76.00	358.79	5,338.84	687.78	-5.84	687.79	9.68	9.62	1.10	
5717 MD: Lase Line Crossing										
5,725.00	76.77	358.88	5,340.72	695.55	-6.00	695.57	9.68	9.63	1.08	
5,755.00	79.49	359.14	5,346.89	724.90	-6.51	724.92	9.11	9.07	0.87	
5,785.00	81.60	359.32	5,351.82	754.49	-6.90	754.51	7.06	7.03	0.60	
5,815.00	84.24	359.67	5,355.51	784.26	-7.17	784.28	8.88	8.80	1.17	
5,818.60	84.57	359.70	5,355.87	787.84	-7.19	787.86	9.10	9.06	0.82	
5818.60 MD: 100' Offset Crossing										
5,847.00	87.14	359.93	5,357.92	816.16	-7.28	816.18	9.10	9.06	0.81	
5,878.00	89.16	0.28	5,358.92	847.15	-7.22	847.16	6.61	6.52	1.13	

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5,908.00	90.22	0.72	5,359.08	877.14	-6.96	877.15	3.83	3.53	1.47	
5,970.00	92.07	0.81	5,357.84	939.12	-6.13	939.12	2.99	2.98	0.15	
6,066.00	89.69	359.41	5,356.37	1,035.10	-5.95	1,035.08	2.88	-2.48	-1.46	
6,160.00	88.46	358.00	5,357.89	1,129.06	-8.07	1,129.06	1.99	-1.31	-1.50	
6,254.00	89.25	357.56	5,359.76	1,222.97	-11.71	1,223.01	0.96	0.84	-0.47	
6,350.00	90.57	357.47	5,359.92	1,318.88	-15.87	1,318.97	1.38	1.38	-0.09	
6,445.00	89.16	357.56	5,360.14	1,413.79	-19.99	1,413.93	1.49	-1.48	0.09	
6,541.00	90.66	357.38	5,360.29	1,509.69	-24.23	1,509.88	1.57	1.56	-0.19	
6,635.00	88.99	357.82	5,360.58	1,603.60	-28.17	1,603.84	1.84	-1.78	0.47	
6,730.00	90.22	357.82	5,361.23	1,698.53	-31.78	1,698.81	1.29	1.29	0.00	
6,825.00	89.96	0.28	5,361.08	1,793.51	-33.35	1,793.80	2.60	-0.27	2.59	
6,920.00	90.22	0.64	5,360.93	1,888.51	-32.59	1,888.78	0.47	0.27	0.38	
7,014.00	88.11	359.76	5,362.30	1,982.49	-32.26	1,982.75	2.43	-2.24	-0.94	
7,110.00	90.40	0.20	5,363.55	2,078.48	-32.30	2,078.73	2.43	2.39	0.46	
7,204.00	89.87	0.90	5,363.33	2,172.47	-31.39	2,172.70	0.93	-0.56	0.74	
7,298.00	90.84	1.78	5,362.75	2,266.44	-29.20	2,266.63	1.39	1.03	0.94	
7,393.00	89.87	359.67	5,362.16	2,361.43	-27.99	2,361.58	2.44	-1.02	-2.22	
7,487.00	90.48	358.88	5,361.87	2,455.42	-29.18	2,455.58	1.06	0.65	-0.84	
7,584.00	87.76	357.47	5,363.36	2,552.34	-32.27	2,552.54	3.16	-2.80	-1.45	
7,681.00	89.08	357.56	5,366.04	2,649.21	-36.48	2,649.46	1.36	1.36	0.09	
7,777.00	90.31	357.03	5,366.55	2,745.10	-41.01	2,745.41	1.40	1.28	-0.55	
7,872.00	90.40	356.94	5,365.96	2,839.97	-46.00	2,840.34	0.13	0.09	-0.09	
7,967.00	90.92	358.61	5,364.86	2,934.89	-49.69	2,935.30	1.84	0.55	1.76	
8,063.00	92.24	358.88	5,362.22	3,030.83	-51.79	3,031.26	1.40	1.38	0.28	
8,158.00	90.66	359.41	5,359.81	3,125.78	-53.21	3,126.22	1.75	-1.66	0.56	
8,253.00	89.43	358.44	5,359.74	3,220.76	-54.99	3,221.22	1.65	-1.29	-1.02	
8,349.00	90.31	358.44	5,359.96	3,316.73	-57.61	3,317.21	0.92	0.92	0.00	
8,444.00	90.04	358.61	5,359.67	3,411.69	-60.05	3,412.20	0.34	-0.28	0.18	
8,538.00	89.78	359.85	5,359.81	3,505.68	-61.31	3,506.20	1.35	-0.28	1.32	
8,633.00	88.46	359.14	5,361.27	3,600.67	-62.15	3,601.19	1.58	-1.39	-0.75	
8,728.00	91.54	1.08	5,361.27	3,695.65	-61.97	3,696.16	3.83	3.24	2.04	
8,823.00	89.78	359.32	5,360.18	3,790.64	-61.64	3,791.13	2.62	-1.85	-1.85	
8,916.00	89.43	359.58	5,360.82	3,883.63	-62.53	3,884.13	0.47	-0.38	0.28	
9,010.00	91.54	0.28	5,360.02	3,977.62	-62.65	3,978.11	2.36	2.24	0.74	
9,106.00	89.16	0.02	5,359.44	4,073.61	-62.39	4,074.09	2.49	-2.48	-0.27	
9,197.00	91.71	1.08	5,358.75	4,164.59	-61.52	4,165.05	3.03	2.80	1.16	
9,289.00	89.52	0.20	5,357.76	4,256.58	-60.49	4,257.01	2.57	-2.38	-0.96	
9,380.00	91.28	0.20	5,357.12	4,347.57	-60.18	4,347.99	1.93	1.93	0.00	
9,472.00	90.57	359.05	5,355.64	4,439.55	-60.78	4,439.97	1.47	-0.77	-1.25	
9,564.00	89.43	358.09	5,355.64	4,531.52	-63.07	4,531.96	1.62	-1.24	-1.04	
9,656.00	89.43	358.97	5,356.55	4,623.49	-65.43	4,623.95	0.96	0.00	0.96	
9,748.00	89.78	358.88	5,357.19	4,715.47	-67.16	4,715.95	0.39	0.38	-0.10	
9,840.00	90.13	358.61	5,357.26	4,807.45	-69.17	4,807.94	0.48	0.38	-0.29	

Survey Report

Company:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Felina Fee 5H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Site:	Felina Fee 5H	MD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Well:	Felina Fee 5H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
9,932.00	90.22	358.97	5,356.98	4,899.43	-71.12	4,899.94	0.40	0.10	0.39	
10,038.00	90.84	0.14	5,356.00	5,005.42	-71.94	5,005.93	1.25	0.58	1.10	
10,132.00	89.96	359.62	5,355.34	5,099.41	-72.14	5,099.92	1.09	-0.94	-0.55	
10,227.00	89.96	359.88	5,355.41	5,194.41	-72.55	5,194.92	0.27	0.00	0.27	
10,322.00	89.52	1.11	5,355.84	5,289.40	-71.73	5,289.89	1.38	-0.46	1.29	
10,417.00	89.87	1.02	5,356.35	5,384.39	-69.97	5,384.84	0.38	0.37	-0.09	
10,511.00	89.25	1.11	5,357.07	5,478.37	-68.22	5,478.78	0.67	-0.66	0.10	
10,606.00	89.52	1.20	5,358.09	5,573.34	-66.30	5,573.72	0.30	0.28	0.09	
10,702.00	90.04	1.46	5,358.46	5,669.31	-64.08	5,669.65	0.61	0.54	0.27	
10,797.00	88.81	0.23	5,359.41	5,764.30	-62.67	5,764.60	1.83	-1.29	-1.29	
10,893.00	88.99	0.23	5,361.25	5,860.28	-62.29	5,860.57	0.19	0.19	0.00	
10,988.00	89.34	0.41	5,362.64	5,955.27	-61.76	5,955.54	0.41	0.37	0.19	
11,083.00	90.13	0.23	5,363.08	6,050.26	-61.23	6,050.52	0.85	0.83	-0.19	
11,178.00	90.66	0.58	5,362.42	6,145.26	-60.56	6,145.49	0.67	0.56	0.37	
11,273.00	89.96	359.71	5,361.91	6,240.25	-60.32	6,240.48	1.18	-0.74	-0.92	
11,368.00	89.69	358.91	5,362.20	6,335.25	-61.46	6,335.48	0.89	-0.28	-0.84	
11,462.00	90.22	358.12	5,362.27	6,429.21	-63.90	6,429.47	1.01	0.56	-0.84	
11,557.00	91.45	358.48	5,360.89	6,524.16	-66.71	6,524.45	1.35	1.29	0.38	
11,652.00	89.25	359.53	5,360.31	6,619.14	-68.36	6,619.44	2.57	-2.32	1.11	
11,747.00	89.69	359.62	5,361.19	6,714.13	-69.07	6,714.43	0.47	0.46	0.09	
11,842.00	90.22	359.79	5,361.26	6,809.13	-69.56	6,809.43	0.59	0.56	0.18	
11,938.00	90.13	358.74	5,360.97	6,905.12	-70.79	6,905.42	1.10	-0.09	-1.09	
12,032.00	90.04	357.51	5,360.83	6,999.07	-73.86	6,999.41	1.31	-0.10	-1.31	
12,127.00	90.31	358.83	5,360.54	7,094.01	-76.90	7,094.39	1.42	0.28	1.39	
12,222.00	90.04	358.30	5,360.25	7,188.98	-79.28	7,189.38	0.63	-0.28	-0.56	
12,317.00	89.78	357.16	5,360.40	7,283.91	-83.04	7,284.35	1.23	-0.27	-1.20	
12,411.00	90.22	356.81	5,360.40	7,377.78	-87.98	7,378.28	0.60	0.47	-0.37	
12,506.00	89.52	357.33	5,360.61	7,472.65	-92.84	7,473.22	0.92	-0.74	0.55	
12,601.00	89.34	357.60	5,361.56	7,567.55	-97.04	7,568.17	0.34	-0.19	0.28	
12,695.00	89.69	358.04	5,362.35	7,661.48	-100.62	7,662.14	0.60	0.37	0.47	
12,791.00	89.78	358.39	5,362.80	7,757.43	-103.61	7,758.12	0.38	0.09	0.36	
12,886.00	89.96	358.39	5,363.01	7,852.40	-106.28	7,853.11	0.19	0.19	0.00	
12,982.00	90.48	359.71	5,362.64	7,948.38	-107.87	7,949.11	1.48	0.54	1.38	
13,076.00	90.84	0.06	5,361.56	8,042.37	-108.06	8,043.10	0.53	0.38	0.37	
13,170.00	89.96	358.91	5,360.90	8,136.36	-108.90	8,137.09	1.54	-0.94	-1.22	
13,265.00	89.87	359.09	5,361.05	8,231.35	-110.56	8,232.09	0.21	-0.09	0.19	
13,360.00	89.78	359.79	5,361.34	8,326.34	-111.49	8,327.09	0.74	-0.09	0.74	
13,455.00	89.78	359.97	5,361.70	8,421.34	-111.69	8,422.08	0.19	0.00	0.19	
13,547.00	89.78	359.35	5,362.05	8,513.34	-112.23	8,514.08	0.67	0.00	-0.67	
13547 MD: End DrillTech										
13,558.97	89.78	359.35	5,362.10	8,525.31	-112.37	8,526.05	0.00	0.00	0.00	
13558.97 MD: 100' Offset Crossing										
13,612.00	89.78	359.35	5,362.30	8,578.34	-112.97	8,579.07	0.00	0.00	0.00	
13612 MD: Projection to TD - 13612 MD: 46.96' FNL & 1326.32' FWL										

Survey Report

Company:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Felina Fee 5H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Site:	Felina Fee 5H	MD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Well:	Felina Fee 5H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)

Design Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
127.00	127.00	0.34	0.60	127 MD: Start DrillTech
5,717.00	5,338.84	687.78	-5.84	5717 MD: Lase Line Crossing
5,818.60	5,355.87	787.84	-7.19	5818.60 MD: 100' Offset Crossing
13,547.00	5,362.05	8,513.34	-112.23	13547 MD: End DrillTech
13,558.97	5,362.10	8,525.31	-112.37	13558.97 MD: 100' Offset Crossing
13,612.00	5,362.30	8,578.34	-112.97	13612 MD: Projection to TD
13,612.00	5,362.30	8,578.34	-112.97	13612 MD: 46.96' FNL & 1326.32' FWL

Checked By: _____ Approved By: _____ Date: _____

Steward Energy II, LLC

Lea County, NM (NAD 83) NM East Zone

Felina Fee 5H

Felina Fee 5H

Wellbore #1

Design: Wellbore #1

Survey Report - Geographic

30 September, 2020

Survey Report - Geographic

Company:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Felina Fee 5H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Site:	Felina Fee 5H	MD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Well:	Felina Fee 5H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM

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

Site	Felina Fee 5H			
Site Position:		Northing:	788,362.67 usft	Latitude: 33.161
From:	Map	Easting:	927,371.63 usft	Longitude: -103.072
Position Uncertainty:	0.00 ft	Slot Radius:	13.200 in	Grid Convergence: 0.69 °

Well	Felina Fee 5H			
Well Position	+N/-S	0.00 ft	Northing:	788,362.67 usft
	+E/-W	0.00 ft	Easting:	927,371.63 usft
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft	Ground Level: 3,799.00 ft

Wellbore	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2020	9/14/2020	6.46	60.85	48,173.14825664

Design	Wellbore #1				
Audit Notes:					
Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)	
	0.00	0.00	0.00	359.18	

Survey Program	Date	9/30/2020			
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
127.00	13,612.00	DrilTech MWD (Wellbore #1)	MWD	MWD - Standard	

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	788,362.67	927,371.63	33.161	-103.072
127.00	0.62	60.26	127.00	0.34	0.60	788,363.01	927,372.23	33.161	-103.072
127 MD: Start DrilTech									
221.00	0.97	35.83	220.99	1.24	1.50	788,363.91	927,373.13	33.161	-103.072
312.00	1.23	41.01	311.97	2.60	2.60	788,365.27	927,374.23	33.161	-103.072
403.00	0.62	16.58	402.96	3.81	3.38	788,366.48	927,375.01	33.161	-103.072
495.00	0.70	70.81	494.95	4.47	4.05	788,367.14	927,375.68	33.161	-103.072
588.00	0.62	62.46	587.95	4.89	5.03	788,367.56	927,376.66	33.161	-103.072
682.00	0.62	25.19	681.94	5.59	5.70	788,368.25	927,377.33	33.161	-103.072
778.00	0.44	80.21	777.94	6.12	6.28	788,368.79	927,377.92	33.161	-103.072
872.00	0.62	45.50	871.94	6.54	7.00	788,369.20	927,378.63	33.161	-103.072
967.00	0.18	219.43	966.93	6.78	7.27	788,369.45	927,378.91	33.161	-103.072

Survey Report - Geographic

Company:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Felina Fee 5H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Site:	Felina Fee 5H	MD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Well:	Felina Fee 5H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude	
1,062.00	0.35	301.35	1,061.93	6.82	6.93	788,369.48	927,378.56	33.161	-103.072	
1,156.00	0.44	61.49	1,155.93	7.14	7.00	788,369.81	927,378.63	33.161	-103.072	
1,250.00	0.53	357.77	1,249.93	7.74	7.30	788,370.41	927,378.94	33.161	-103.072	
1,343.00	0.26	66.85	1,342.93	8.26	7.48	788,370.93	927,379.11	33.161	-103.072	
1,437.00	0.26	196.49	1,436.93	8.14	7.62	788,370.80	927,379.25	33.161	-103.072	
1,529.00	0.53	249.23	1,528.93	7.79	7.16	788,370.45	927,378.79	33.161	-103.072	
1,624.00	0.44	301.35	1,623.92	7.82	6.44	788,370.49	927,378.07	33.161	-103.072	
1,718.00	0.44	266.72	1,717.92	7.99	5.77	788,370.65	927,377.40	33.161	-103.072	
1,814.00	0.53	174.70	1,813.92	7.52	5.44	788,370.19	927,377.07	33.161	-103.072	
1,909.00	0.53	194.91	1,908.91	6.66	5.37	788,369.33	927,377.00	33.161	-103.072	
2,002.00	0.44	263.11	2,001.91	6.20	4.90	788,368.87	927,376.54	33.161	-103.072	
2,094.00	0.62	191.66	2,093.91	5.67	4.45	788,368.34	927,376.08	33.161	-103.072	
2,187.00	0.62	190.60	2,186.90	4.69	4.26	788,367.35	927,375.89	33.161	-103.072	
2,281.00	0.70	188.67	2,280.90	3.62	4.08	788,366.29	927,375.71	33.161	-103.072	
2,350.00	0.44	109.13	2,349.89	3.11	4.27	788,365.78	927,375.90	33.161	-103.072	
2,464.00	0.35	170.04	2,463.89	2.63	4.74	788,365.30	927,376.37	33.161	-103.072	
2,580.00	1.67	196.58	2,579.87	0.66	4.32	788,363.33	927,375.95	33.161	-103.072	
2,674.00	3.25	183.57	2,673.78	-3.31	3.76	788,359.35	927,375.39	33.161	-103.072	
2,768.00	5.01	181.64	2,767.53	-10.08	3.48	788,352.59	927,375.11	33.161	-103.072	
2,862.00	5.10	184.63	2,861.17	-18.34	3.02	788,344.32	927,374.65	33.161	-103.072	
2,956.00	5.10	180.58	2,954.80	-26.69	2.64	788,335.98	927,374.27	33.161	-103.072	
3,050.00	4.92	178.21	3,048.44	-34.89	2.73	788,327.78	927,374.36	33.161	-103.072	
3,143.00	4.04	167.49	3,141.15	-42.08	3.56	788,320.59	927,375.19	33.161	-103.072	
3,238.00	3.96	158.88	3,235.92	-48.40	5.47	788,314.26	927,377.10	33.161	-103.072	
3,332.00	3.17	166.87	3,329.74	-53.96	7.23	788,308.70	927,378.86	33.161	-103.072	
3,426.00	2.99	173.99	3,423.61	-58.93	8.08	788,303.74	927,379.71	33.161	-103.072	
3,521.00	3.08	171.18	3,518.47	-63.92	8.73	788,298.75	927,380.36	33.161	-103.072	
3,616.00	2.55	174.52	3,613.36	-68.54	9.32	788,294.12	927,380.95	33.161	-103.072	
3,711.00	3.52	155.01	3,708.23	-73.29	10.75	788,289.38	927,382.38	33.161	-103.072	
3,805.00	2.73	158.35	3,802.09	-77.99	12.80	788,284.68	927,384.43	33.161	-103.072	
3,899.00	1.58	136.29	3,896.02	-81.00	14.52	788,281.66	927,386.15	33.161	-103.072	
3,992.00	0.53	3.05	3,989.01	-81.50	15.43	788,281.17	927,387.06	33.161	-103.072	
4,086.00	0.88	344.15	4,083.00	-80.37	15.25	788,282.29	927,386.89	33.161	-103.072	
4,181.00	1.06	351.97	4,177.99	-78.80	14.93	788,283.87	927,386.56	33.161	-103.072	
4,276.00	0.35	63.51	4,272.98	-77.80	15.07	788,284.87	927,386.70	33.161	-103.072	
4,371.00	0.26	105.70	4,367.98	-77.73	15.54	788,284.94	927,387.17	33.161	-103.072	
4,466.00	0.35	80.30	4,462.98	-77.74	16.03	788,284.93	927,387.66	33.161	-103.072	
4,529.00	1.67	357.95	4,525.97	-76.79	16.19	788,285.88	927,387.82	33.161	-103.072	
4,561.00	4.40	359.18	4,557.92	-75.10	16.15	788,287.57	927,387.78	33.161	-103.072	
4,592.00	7.39	356.54	4,588.75	-71.92	16.02	788,290.75	927,387.65	33.161	-103.072	
4,623.00	10.38	356.10	4,619.38	-67.14	15.71	788,295.53	927,387.34	33.161	-103.072	
4,656.00	13.63	356.98	4,651.65	-60.29	15.30	788,302.38	927,386.93	33.161	-103.072	
4,686.00	16.44	358.56	4,680.62	-52.51	15.01	788,310.15	927,386.64	33.161	-103.072	
4,718.00	18.20	359.09	4,711.17	-42.99	14.81	788,319.68	927,386.44	33.161	-103.072	
4,749.00	19.61	0.32	4,740.50	-32.95	14.76	788,329.72	927,386.39	33.161	-103.072	
4,780.00	22.07	0.58	4,769.47	-21.92	14.85	788,340.75	927,386.48	33.161	-103.072	
4,810.00	24.80	1.29	4,796.99	-9.99	15.05	788,352.68	927,386.68	33.161	-103.072	
4,842.00	27.52	1.29	4,825.71	4.11	15.37	788,366.78	927,387.00	33.161	-103.072	
4,874.00	30.07	0.76	4,853.75	19.52	15.64	788,382.19	927,387.27	33.161	-103.072	
4,906.00	32.45	359.53	4,881.10	36.13	15.68	788,398.79	927,387.31	33.161	-103.072	
4,937.00	34.56	358.91	4,906.95	53.24	15.44	788,415.90	927,387.07	33.161	-103.072	
4,968.00	36.67	358.56	4,932.15	71.28	15.04	788,433.95	927,386.67	33.161	-103.072	
4,999.00	38.95	358.21	4,956.64	90.28	14.50	788,452.94	927,386.14	33.161	-103.072	
5,031.00	41.06	358.56	4,981.15	110.84	13.93	788,473.51	927,385.56	33.161	-103.072	
5,061.00	43.35	358.91	5,003.37	130.99	13.48	788,493.65	927,385.11	33.161	-103.072	

Survey Report - Geographic

Company:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Felina Fee 5H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Site:	Felina Fee 5H	MD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Well:	Felina Fee 5H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM

Survey										
Measured			Vertical			Map		Map		
Depth (ft)	Inclination (°)	Azimuth (°)	Depth (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude	
5,093.00	45.73	358.74	5,026.18	153.43	13.02	788,516.09	927,384.65	33.161	-103.072	
5,125.00	47.92	358.04	5,048.07	176.75	12.36	788,539.42	927,383.99	33.161	-103.072	
5,156.00	50.12	357.51	5,068.40	200.13	11.45	788,562.80	927,383.08	33.161	-103.072	
5,188.00	52.23	357.60	5,088.46	225.04	10.39	788,587.71	927,382.02	33.161	-103.072	
5,220.00	54.43	358.04	5,107.57	250.69	9.42	788,613.35	927,381.05	33.161	-103.072	
5,252.00	56.28	358.65	5,125.76	277.00	8.66	788,639.67	927,380.29	33.162	-103.072	
5,283.00	58.21	358.74	5,142.53	303.06	8.06	788,665.73	927,379.69	33.162	-103.072	
5,315.00	58.65	358.55	5,159.29	330.32	7.42	788,692.99	927,379.05	33.162	-103.072	
5,346.00	59.00	358.10	5,175.34	356.83	6.64	788,719.50	927,378.27	33.162	-103.072	
5,378.00	59.18	358.00	5,191.77	384.27	5.71	788,746.94	927,377.34	33.162	-103.072	
5,410.00	59.27	357.91	5,208.15	411.75	4.73	788,774.41	927,376.36	33.162	-103.072	
5,441.00	59.36	357.56	5,223.97	438.39	3.67	788,801.05	927,375.30	33.162	-103.072	
5,473.00	59.53	357.47	5,240.23	465.92	2.48	788,828.58	927,374.11	33.162	-103.072	
5,505.00	59.71	357.30	5,256.42	493.49	1.22	788,856.16	927,372.85	33.162	-103.072	
5,536.00	60.32	357.56	5,271.91	520.32	0.02	788,882.98	927,371.65	33.162	-103.072	
5,568.00	62.78	357.56	5,287.15	548.43	-1.18	788,911.09	927,370.45	33.162	-103.072	
5,600.00	66.21	357.74	5,300.93	577.28	-2.37	788,939.95	927,369.27	33.162	-103.072	
5,631.00	69.20	357.91	5,312.69	605.94	-3.45	788,968.60	927,368.18	33.162	-103.072	
5,663.00	71.23	358.18	5,323.52	636.03	-4.48	788,998.70	927,367.15	33.163	-103.072	
5,693.00	73.69	358.53	5,332.56	664.62	-5.30	789,027.29	927,366.33	33.163	-103.072	
5,717.00	76.00	358.79	5,338.84	687.78	-5.84	789,050.44	927,365.79	33.163	-103.072	
5717 MD: Lase Line Crossing										
5,725.00	76.77	358.88	5,340.72	695.55	-6.00	789,058.22	927,365.63	33.163	-103.072	
5,755.00	79.49	359.14	5,346.89	724.90	-6.51	789,087.57	927,365.12	33.163	-103.072	
5,785.00	81.60	359.32	5,351.82	754.49	-6.90	789,117.16	927,364.73	33.163	-103.072	
5,815.00	84.24	359.67	5,355.51	784.26	-7.17	789,146.92	927,364.47	33.163	-103.072	
5,818.60	84.57	359.70	5,355.87	787.84	-7.19	789,150.51	927,364.45	33.163	-103.072	
5818.60 MD: 100' Offset Crossing										
5,847.00	87.14	359.93	5,357.92	816.16	-7.28	789,178.83	927,364.35	33.163	-103.072	
5,878.00	89.16	0.28	5,358.92	847.15	-7.22	789,209.81	927,364.41	33.163	-103.072	
5,908.00	90.22	0.72	5,359.08	877.14	-6.96	789,239.81	927,364.67	33.163	-103.072	
5,970.00	92.07	0.81	5,357.84	939.12	-6.13	789,301.79	927,365.50	33.163	-103.072	
6,066.00	89.69	359.41	5,356.37	1,035.10	-5.95	789,397.77	927,365.68	33.164	-103.072	
6,160.00	88.46	358.00	5,357.89	1,129.06	-8.07	789,491.73	927,363.56	33.164	-103.072	
6,254.00	89.25	357.56	5,359.76	1,222.97	-11.71	789,585.64	927,359.92	33.164	-103.072	
6,350.00	90.57	357.47	5,359.92	1,318.88	-15.87	789,681.54	927,355.76	33.164	-103.072	
6,445.00	89.16	357.56	5,360.14	1,413.79	-19.99	789,776.45	927,351.64	33.165	-103.072	
6,541.00	90.66	357.38	5,360.29	1,509.69	-24.23	789,872.36	927,347.40	33.165	-103.072	
6,635.00	88.99	357.82	5,360.58	1,603.60	-28.17	789,966.27	927,343.46	33.165	-103.072	
6,730.00	90.22	357.82	5,361.23	1,698.53	-31.78	790,061.20	927,339.85	33.165	-103.072	
6,825.00	89.96	0.28	5,361.08	1,793.51	-33.35	790,156.18	927,338.28	33.166	-103.072	
6,920.00	90.22	0.64	5,360.93	1,888.51	-32.59	790,251.17	927,339.04	33.166	-103.072	
7,014.00	88.11	359.76	5,362.30	1,982.49	-32.26	790,345.15	927,339.37	33.166	-103.072	
7,110.00	90.40	0.20	5,363.55	2,078.48	-32.30	790,441.14	927,339.33	33.167	-103.072	
7,204.00	89.87	0.90	5,363.33	2,172.47	-31.39	790,535.13	927,340.24	33.167	-103.072	
7,298.00	90.84	1.78	5,362.75	2,266.44	-29.20	790,629.10	927,342.43	33.167	-103.072	
7,393.00	89.87	359.67	5,362.16	2,361.43	-27.99	790,724.09	927,343.64	33.167	-103.072	
7,487.00	90.48	358.88	5,361.87	2,455.42	-29.18	790,818.08	927,342.45	33.168	-103.072	
7,584.00	87.76	357.47	5,363.36	2,552.34	-32.27	790,915.01	927,339.36	33.168	-103.072	
7,681.00	89.08	357.56	5,366.04	2,649.21	-36.48	791,011.88	927,335.15	33.168	-103.072	
7,777.00	90.31	357.03	5,366.55	2,745.10	-41.01	791,107.77	927,330.62	33.168	-103.072	
7,872.00	90.40	356.94	5,365.96	2,839.97	-46.00	791,202.63	927,325.63	33.169	-103.072	
7,967.00	90.92	358.61	5,364.86	2,934.89	-49.69	791,297.55	927,321.94	33.169	-103.072	
8,063.00	92.24	358.88	5,362.22	3,030.83	-51.79	791,393.49	927,319.84	33.169	-103.072	
8,158.00	90.66	359.41	5,359.81	3,125.78	-53.21	791,488.44	927,318.42	33.169	-103.072	

Survey Report - Geographic

Company:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Felina Fee 5H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Site:	Felina Fee 5H	MD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Well:	Felina Fee 5H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
8,253.00	89.43	358.44	5,359.74	3,220.76	-54.99	791,583.42	927,316.64	33.170	-103.072
8,349.00	90.31	358.44	5,359.96	3,316.73	-57.61	791,679.39	927,314.03	33.170	-103.072
8,444.00	90.04	358.61	5,359.67	3,411.69	-60.05	791,774.35	927,311.58	33.170	-103.072
8,538.00	89.78	359.85	5,359.81	3,505.68	-61.31	791,868.34	927,310.32	33.170	-103.072
8,633.00	88.46	359.14	5,361.27	3,600.67	-62.15	791,963.33	927,309.48	33.171	-103.072
8,728.00	91.54	1.08	5,361.27	3,695.65	-61.97	792,058.31	927,309.66	33.171	-103.072
8,823.00	89.78	359.32	5,360.18	3,790.64	-61.64	792,153.30	927,309.99	33.171	-103.072
8,916.00	89.43	359.58	5,360.82	3,883.63	-62.53	792,246.29	927,309.10	33.171	-103.072
9,010.00	91.54	0.28	5,360.02	3,977.62	-62.65	792,340.28	927,308.99	33.172	-103.072
9,106.00	89.16	0.02	5,359.44	4,073.61	-62.39	792,436.27	927,309.24	33.172	-103.072
9,197.00	91.71	1.08	5,358.75	4,164.59	-61.52	792,527.25	927,310.11	33.172	-103.072
9,289.00	89.52	0.20	5,357.76	4,256.58	-60.49	792,619.24	927,311.14	33.172	-103.072
9,380.00	91.28	0.20	5,357.12	4,347.57	-60.18	792,710.23	927,311.46	33.173	-103.072
9,472.00	90.57	359.05	5,355.64	4,439.55	-60.78	792,802.21	927,310.85	33.173	-103.072
9,564.00	89.43	358.09	5,355.64	4,531.52	-63.07	792,894.18	927,308.56	33.173	-103.072
9,656.00	89.43	358.97	5,356.55	4,623.49	-65.43	792,986.15	927,306.20	33.173	-103.072
9,748.00	89.78	358.88	5,357.19	4,715.47	-67.16	793,078.13	927,304.47	33.174	-103.072
9,840.00	90.13	358.61	5,357.26	4,807.45	-69.17	793,170.10	927,302.46	33.174	-103.072
9,932.00	90.22	358.97	5,356.98	4,899.43	-71.12	793,262.08	927,300.51	33.174	-103.072
10,038.00	90.84	0.14	5,356.00	5,005.42	-71.94	793,368.07	927,299.69	33.175	-103.072
10,132.00	89.96	359.62	5,355.34	5,099.41	-72.14	793,462.07	927,299.49	33.175	-103.072
10,227.00	89.96	359.88	5,355.41	5,194.41	-72.55	793,557.07	927,299.08	33.175	-103.072
10,322.00	89.52	1.11	5,355.84	5,289.40	-71.73	793,652.06	927,299.90	33.175	-103.072
10,417.00	89.87	1.02	5,356.35	5,384.39	-69.97	793,747.04	927,301.67	33.176	-103.072
10,511.00	89.25	1.11	5,357.07	5,478.37	-68.22	793,841.02	927,303.41	33.176	-103.072
10,606.00	89.52	1.20	5,358.09	5,573.34	-66.30	793,936.00	927,305.33	33.176	-103.072
10,702.00	90.04	1.46	5,358.46	5,669.31	-64.08	794,031.97	927,307.56	33.176	-103.072
10,797.00	88.81	0.23	5,359.41	5,764.30	-62.67	794,126.95	927,308.96	33.177	-103.072
10,893.00	88.99	0.23	5,361.25	5,860.28	-62.29	794,222.93	927,309.34	33.177	-103.072
10,988.00	89.34	0.41	5,362.64	5,955.27	-61.76	794,317.92	927,309.87	33.177	-103.072
11,083.00	90.13	0.23	5,363.08	6,050.26	-61.23	794,412.92	927,310.40	33.177	-103.072
11,178.00	90.66	0.58	5,362.42	6,145.26	-60.56	794,507.91	927,311.07	33.178	-103.072
11,273.00	89.96	359.71	5,361.91	6,240.25	-60.32	794,602.91	927,311.31	33.178	-103.072
11,368.00	89.69	358.91	5,362.20	6,335.25	-61.46	794,697.90	927,310.17	33.178	-103.072
11,462.00	90.22	358.12	5,362.27	6,429.21	-63.90	794,791.87	927,307.73	33.178	-103.072
11,557.00	91.45	358.48	5,360.89	6,524.16	-66.71	794,886.81	927,304.92	33.179	-103.072
11,652.00	89.25	359.53	5,360.31	6,619.14	-68.36	794,981.79	927,303.27	33.179	-103.072
11,747.00	89.69	359.62	5,361.19	6,714.13	-69.07	795,076.78	927,302.56	33.179	-103.072
11,842.00	90.22	359.79	5,361.26	6,809.13	-69.56	795,171.78	927,302.07	33.180	-103.072
11,938.00	90.13	358.74	5,360.97	6,905.12	-70.79	795,267.77	927,300.84	33.180	-103.072
12,032.00	90.04	357.51	5,360.83	6,999.07	-73.86	795,361.72	927,297.77	33.180	-103.072
12,127.00	90.31	358.83	5,360.54	7,094.01	-76.90	795,456.67	927,294.73	33.180	-103.072
12,222.00	90.04	358.30	5,360.25	7,188.98	-79.28	795,551.64	927,292.35	33.181	-103.072
12,317.00	89.78	357.16	5,360.40	7,283.91	-83.04	795,646.56	927,288.59	33.181	-103.072
12,411.00	90.22	356.81	5,360.40	7,377.78	-87.98	795,740.43	927,283.65	33.181	-103.072
12,506.00	89.52	357.33	5,360.61	7,472.65	-92.84	795,835.30	927,278.79	33.181	-103.072
12,601.00	89.34	357.60	5,361.56	7,567.55	-97.04	795,930.21	927,274.59	33.182	-103.072
12,695.00	89.69	358.04	5,362.35	7,661.48	-100.62	796,024.13	927,271.01	33.182	-103.072
12,791.00	89.78	358.39	5,362.80	7,757.43	-103.61	796,120.09	927,268.02	33.182	-103.072
12,886.00	89.96	358.39	5,363.01	7,852.40	-106.28	796,215.05	927,265.35	33.182	-103.072
12,982.00	90.48	359.71	5,362.64	7,948.38	-107.87	796,311.03	927,263.76	33.183	-103.072
13,076.00	90.84	0.06	5,361.56	8,042.37	-108.06	796,405.03	927,263.57	33.183	-103.072
13,170.00	89.96	358.91	5,360.90	8,136.36	-108.90	796,499.02	927,262.73	33.183	-103.072
13,265.00	89.87	359.09	5,361.05	8,231.35	-110.56	796,594.00	927,261.07	33.183	-103.072
13,360.00	89.78	359.79	5,361.34	8,326.34	-111.49	796,689.00	927,260.14	33.184	-103.072

Survey Report - Geographic

Company:	Steward Energy II, LLC	Local Co-ordinate Reference:	Well Felina Fee 5H
Project:	Lea County, NM (NAD 83) NM East Zone	TVD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Site:	Felina Fee 5H	MD Reference:	GL 3799' + RKB 17' @ 3816.00ft (Norton 6)
Well:	Felina Fee 5H	North Reference:	Grid
Wellbore:	Wellbore #1	Survey Calculation Method:	Minimum Curvature
Design:	Wellbore #1	Database:	EDM

Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
13,455.00	89.78	359.97	5,361.70	8,421.34	-111.69	796,783.99	927,259.94	33.184	-103.072
13,547.00	89.78	359.35	5,362.05	8,513.34	-112.23	796,875.99	927,259.40	33.184	-103.072
13547 MD: End DrillTech									
13,558.97	89.78	359.35	5,362.10	8,525.31	-112.37	796,887.96	927,259.26	33.184	-103.072
13558.97 MD: 100' Offset Crossing									
13,612.00	89.78	359.35	5,362.30	8,578.34	-112.97	796,940.99	927,258.66	33.184	-103.072
13612 MD: Projection to TD - 13612 MD: 46.96' FNL & 1326.32' FWL									

Design Annotations					
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates			
		+N/-S (ft)	+E/-W (ft)	Comment	
127.00	127.00	0.34	0.60	127 MD: Start DrillTech	
5,717.00	5,338.84	687.78	-5.84	5717 MD: Lase Line Crossing	
5,818.60	5,355.87	787.84	-7.19	5818.60 MD: 100' Offset Crossing	
13,547.00	5,362.05	8,513.34	-112.23	13547 MD: End DrillTech	
13,558.97	5,362.10	8,525.31	-112.37	13558.97 MD: 100' Offset Crossing	
13,612.00	5,362.30	8,578.34	-112.97	13612 MD: Projection to TD	
13,612.00	5,362.30	8,578.34	-112.97	13612 MD: 46.96' FNL & 1326.32' FWL	

Checked By: _____ Approved By: _____ Date: _____