



HOBBS OCD
MAR 03 2020
RECEIVED

Centennial Resource Development LLC

Lea County, NM (NAD 83 - UTM Zone 13 - True)
Winnebago 30 State Com
Winnebago 30 State Com 502H

OH

Design: OH

Standard Survey Report

31 January, 2020





Total Directional Services

Survey Report



Company: Centennial Resource Development, LLC
Project: Lea County, NM (NAD 83 - UTM Zone 13 - True)
Site: Winnebago 30 State Com
Well: Winnebago 30 State Com 502H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well Winnebago 30 State Com 502H
TVD Reference: 3455.1' GE + 26.5' KB @ 3481.60usft
MD Reference: 3455.1' GE + 26.5' KB @ 3481.60usft
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.15 Single User Db

Project	Lea County, NM (NAD 83 - UTM Zone 13 - True)		
Map System:	Universal Transverse Mercator (US Survey Feet)	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		

Site	Winnebago 30 State Com		
Site Position:		Northing:	11,748,785.38 usft
From:	Map	Easting:	2,131,624.41 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32.356247
		Longitude:	-103.408813
		Grid Convergence:	0.85 °

Well	Winnebago 30 State Com 502H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32.356656
		Longitude:	-103.411612
		Ground Level:	3,455.10 usft

Wellbore	OH		
Magnetics	Model Name	Sample Date	Declination
	IGRF2015	12/9/2019	(°)
			6.62
			Dip Angle
			(°)
			60.18
			Field Strength
			(nT)
			47,777.64501686

Design	OH		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
Vertical Section:	Depth From (TVD)	+N/-S	Tie On Depth:
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			359.36

Survey Program	Date 1/31/2020		
From	To	Survey (Wellbore)	Tool Name
(usft)	(usft)		
219.00	20,697.00	Survey #1 (OH)	MWD+IFR1+MS
20,729.00	20,729.00	Survey #2 - Proj to TD (OH)	BLIND
			Description
			OWSG MWD + IFR1 + Multi-Station Correction
			OWSG BLIND

Survey									
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Vertical	Dogleg	Bulld	Turn
Depth	(°)	(°)	Depth	(usft)	(usft)	Section	Rate	Rate	Rate
(usft)			(usft)			(usft)	(°/100usft)	(°/100usft)	(°/100usft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SHL (Winnebago 30 State Com 502H)									
219.00	0.34	266.02	219.00	-0.05	-0.65	-0.04	0.16	0.16	0.00
279.00	0.45	204.87	279.00	-0.27	-0.92	-0.26	0.69	0.18	-101.92
339.00	0.34	240.87	339.00	-0.57	-1.18	-0.56	0.44	-0.18	60.00
432.00	0.17	214.67	432.00	-0.82	-1.50	-0.80	0.22	-0.18	-28.17
491.00	0.18	227.80	490.99	-0.95	-1.62	-0.94	0.07	0.02	22.25
537.00	0.33	254.16	536.99	-1.04	-1.80	-1.02	0.41	0.33	57.30
615.00	0.19	283.56	614.99	-1.07	-2.14	-1.05	0.24	-0.18	37.69
706.00	0.29	299.39	705.99	-0.92	-2.49	-0.89	0.13	0.11	17.40



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Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
797.00	0.44	270.97	796.99	-0.80	-3.04	-0.77	0.25	0.16	-31.23
888.00	0.40	267.55	887.99	-0.81	-3.70	-0.77	0.05	-0.04	-3.76
982.00	0.44	281.08	981.99	-0.75	-4.39	-0.71	0.11	0.04	14.39
1,074.00	0.58	273.43	1,073.98	-0.66	-5.20	-0.60	0.17	0.15	-8.32
1,165.00	0.46	265.94	1,164.98	-0.66	-6.02	-0.59	0.15	-0.13	-8.23
1,256.00	0.41	236.41	1,255.98	-0.86	-6.66	-0.79	0.25	-0.05	-32.45
1,347.00	0.58	238.89	1,346.97	-1.28	-7.32	-1.20	0.19	0.19	2.73
1,438.00	0.53	234.77	1,437.97	-1.76	-8.06	-1.67	0.07	-0.05	-4.53
1,529.00	0.37	248.28	1,528.97	-2.11	-8.68	-2.02	0.21	-0.18	14.85
1,621.00	0.26	289.14	1,620.96	-2.15	-9.15	-2.05	0.26	-0.12	44.41
1,713.00	0.32	339.70	1,712.96	-1.85	-9.44	-1.74	0.28	0.07	54.96
1,924.00	0.27	352.34	1,923.96	-0.80	-9.71	-0.69	0.04	-0.02	5.99
2,018.00	0.51	24.13	2,017.96	-0.20	-9.57	-0.09	0.33	0.26	33.82
2,112.00	1.00	52.46	2,111.95	0.68	-8.75	0.78	0.64	0.52	30.14
2,206.00	1.07	44.30	2,205.94	1.81	-7.48	1.89	0.17	0.07	-8.68
2,300.00	1.12	59.56	2,299.92	2.90	-6.08	2.97	0.31	0.05	16.23
2,394.00	1.19	74.98	2,393.90	3.62	-4.34	3.67	0.34	0.07	16.40
2,488.00	0.66	137.56	2,487.89	3.48	-3.03	3.51	1.13	-0.56	66.57
2,582.00	1.66	188.36	2,581.87	1.73	-2.87	1.76	1.43	1.06	54.04
2,675.00	3.34	193.09	2,674.78	-2.24	-3.68	-2.20	1.82	1.81	5.09
2,769.00	5.53	195.10	2,768.49	-9.28	-5.48	-9.22	2.34	2.33	2.14
2,864.00	7.96	196.65	2,862.83	-20.01	-8.55	-19.91	2.56	2.56	1.63
2,958.00	8.62	198.30	2,955.84	-32.93	-12.63	-32.79	0.75	0.70	1.76
3,052.00	8.05	198.93	3,048.85	-45.84	-16.98	-45.65	0.61	-0.61	0.67
3,145.00	7.55	200.01	3,140.99	-57.74	-21.18	-57.50	0.56	-0.54	1.16
3,240.00	6.92	199.47	3,235.23	-69.00	-25.22	-68.72	0.67	-0.66	-0.57
3,334.00	6.58	199.02	3,328.58	-79.44	-28.87	-79.11	0.37	-0.36	-0.48
3,428.00	7.50	196.08	3,421.87	-90.42	-32.32	-90.05	1.05	0.98	-3.13
3,522.00	6.75	192.11	3,515.15	-101.72	-35.18	-101.32	0.95	-0.80	-4.22
3,616.00	6.87	187.95	3,608.48	-112.69	-37.12	-112.27	0.54	0.13	-4.43
3,709.00	7.80	186.99	3,700.72	-124.46	-38.65	-124.02	1.01	1.00	-1.03
3,803.00	7.14	185.31	3,793.92	-136.61	-39.97	-136.15	0.74	-0.70	-1.79
3,897.00	7.55	183.72	3,887.15	-148.59	-40.91	-148.12	0.49	0.44	-1.69
3,991.00	8.68	181.81	3,980.21	-161.84	-41.54	-161.37	1.24	1.20	-2.03
4,086.00	8.17	178.75	4,074.18	-175.75	-41.62	-175.28	0.71	-0.54	-3.22
4,180.00	7.50	177.27	4,167.31	-188.56	-41.18	-188.09	0.74	-0.71	-1.57
4,275.00	7.19	185.32	4,261.53	-200.67	-41.43	-200.20	1.13	-0.33	8.47
4,369.00	7.77	196.13	4,354.73	-212.63	-43.74	-212.13	1.62	0.62	11.50
4,463.00	9.04	203.06	4,447.72	-225.53	-48.40	-224.98	1.73	1.35	7.37
4,558.00	8.37	203.60	4,541.63	-238.74	-54.09	-238.12	0.71	-0.71	0.57
4,652.00	7.93	203.99	4,634.68	-250.93	-59.47	-250.25	0.47	-0.47	0.41
4,746.00	7.45	203.99	4,727.83	-262.42	-64.58	-261.68	0.51	-0.51	0.00
4,935.00	6.69	203.79	4,915.40	-283.69	-74.01	-282.85	0.40	-0.40	-0.11

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5,028.00	6.37	204.59	5,007.79	-293.34	-78.34	-292.44	0.36	-0.34	0.86
5,122.00	6.17	204.67	5,101.23	-302.67	-82.62	-301.73	0.21	-0.21	0.09
5,217.00	5.63	205.56	5,195.73	-311.51	-86.76	-310.52	0.58	-0.57	0.94
5,310.00	5.34	207.89	5,288.30	-319.45	-90.75	-318.42	0.39	-0.31	2.51
5,404.00	5.41	209.03	5,381.89	-327.20	-94.95	-326.11	0.14	0.07	1.21
5,498.00	5.38	210.03	5,475.47	-334.89	-99.30	-333.75	0.10	-0.03	1.06
5,545.00	5.39	208.97	5,522.26	-338.72	-101.47	-337.57	0.21	0.02	-2.26
5,648.00	5.16	210.91	5,624.83	-346.93	-106.20	-345.72	0.28	-0.22	1.88
5,742.00	3.18	198.04	5,718.58	-353.04	-109.18	-351.79	2.32	-2.11	-13.69
5,836.00	0.88	177.68	5,812.51	-356.24	-109.95	-354.98	2.53	-2.45	-21.66
5,931.00	0.53	137.25	5,907.50	-357.29	-109.63	-356.04	0.62	-0.37	-42.56
6,025.00	0.41	139.12	6,001.50	-357.86	-109.11	-356.62	0.13	-0.13	1.99
6,119.00	0.41	143.46	6,095.50	-358.39	-108.69	-357.15	0.03	0.00	4.62
6,213.00	0.35	144.90	6,189.50	-358.89	-108.33	-357.66	0.06	-0.06	1.53
6,307.00	0.21	131.55	6,283.50	-359.24	-108.03	-358.01	0.16	-0.15	-14.20
6,401.00	0.15	90.04	6,377.50	-359.36	-107.78	-358.13	0.15	-0.06	-44.16
6,495.00	0.22	59.56	6,471.50	-359.26	-107.50	-358.04	0.13	0.07	-32.43
6,588.00	0.23	53.52	6,564.49	-359.06	-107.20	-357.84	0.03	0.01	-6.49
6,682.00	0.26	32.52	6,658.49	-358.77	-106.93	-357.55	0.10	0.03	-22.34
6,776.00	0.30	42.60	6,752.49	-358.41	-106.65	-357.19	0.07	0.04	10.72
6,871.00	0.42	44.74	6,847.49	-357.98	-106.24	-356.77	0.13	0.13	2.25
6,965.00	0.28	48.47	6,941.49	-357.58	-105.82	-356.38	0.15	-0.15	3.97
7,059.00	0.21	187.29	7,035.49	-357.60	-105.67	-356.40	0.49	-0.07	147.68
7,153.00	0.63	197.60	7,129.49	-358.26	-105.85	-357.06	0.45	0.45	10.97
7,247.00	0.74	193.27	7,223.48	-359.35	-106.15	-358.14	0.13	0.12	-4.61
7,342.00	0.78	180.34	7,318.47	-360.59	-106.29	-359.38	0.18	0.04	-13.61
7,435.00	0.93	173.08	7,411.46	-361.97	-106.20	-360.76	0.20	0.16	-7.81
7,530.00	1.04	183.96	7,506.45	-363.60	-106.17	-362.39	0.23	0.12	11.45
7,624.00	0.86	200.13	7,600.43	-365.11	-106.47	-363.90	0.34	-0.19	17.20
7,718.00	0.91	206.62	7,694.42	-366.44	-107.05	-365.22	0.12	0.05	6.90
7,812.00	0.94	212.80	7,788.41	-367.76	-107.80	-366.53	0.11	0.03	6.57
7,906.00	0.81	216.57	7,882.40	-368.94	-108.61	-367.70	0.15	-0.14	4.01
8,000.00	0.84	227.87	7,976.39	-369.94	-109.52	-368.69	0.18	0.03	12.02
8,094.00	0.89	233.74	8,070.38	-370.83	-110.62	-369.57	0.11	0.05	6.24
8,188.00	0.75	228.30	8,164.37	-371.67	-111.67	-370.40	0.17	-0.15	-5.79
8,282.00	0.05	261.95	8,258.37	-372.09	-112.17	-370.81	0.75	-0.74	35.80
8,376.00	0.04	274.90	8,352.37	-372.09	-112.24	-370.81	0.02	-0.01	13.78
8,470.00	0.30	9.48	8,446.37	-371.84	-112.23	-370.56	0.33	0.28	100.62
8,563.00	0.45	45.42	8,539.36	-371.35	-111.93	-370.07	0.29	0.16	38.65
8,657.00	0.58	32.21	8,633.36	-370.68	-111.42	-369.41	0.19	0.14	-14.05
8,752.00	0.64	40.57	8,728.35	-369.87	-110.82	-368.61	0.11	0.06	8.80
8,846.00	0.90	89.46	8,822.35	-369.47	-109.74	-368.22	0.72	0.28	52.01
8,940.00	1.72	96.30	8,916.32	-369.62	-107.60	-368.39	0.89	0.87	7.28



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9,034.00	1.85	85.03	9,010.28	-369.64	-104.68	-368.45	0.40	0.14	-11.99
9,128.00	0.73	119.14	9,104.25	-369.80	-102.65	-368.63	1.39	-1.19	36.29
9,222.00	1.40	196.34	9,198.24	-371.19	-102.45	-370.02	1.52	0.71	82.13
9,316.00	1.55	177.57	9,292.21	-373.57	-102.72	-372.39	0.54	0.16	-19.97
9,410.00	0.92	150.70	9,386.19	-375.49	-102.29	-374.33	0.89	-0.67	-28.59
9,504.00	0.74	180.16	9,480.18	-376.76	-101.93	-375.60	0.49	-0.19	31.34
9,598.00	0.76	173.45	9,574.17	-377.99	-101.86	-376.82	0.10	0.02	-7.14
9,692.00	0.65	167.04	9,668.16	-379.13	-101.67	-377.96	0.14	-0.12	-6.82
9,786.00	0.20	101.90	9,762.16	-379.68	-101.39	-378.52	0.63	-0.48	-69.30
9,880.00	0.56	25.54	9,856.16	-379.30	-101.03	-378.14	0.58	0.38	-81.23
9,975.00	0.96	11.61	9,951.15	-378.10	-100.67	-376.95	0.46	0.42	-14.66
10,018.00	1.19	5.44	9,994.14	-377.30	-100.55	-376.15	0.60	0.53	-14.35
10,069.00	1.74	357.09	10,045.13	-376.00	-100.54	-374.85	1.15	1.08	-16.37
KOP									
10,116.00	6.32	351.24	10,092.00	-372.73	-100.97	-371.58	9.77	9.74	-12.45
10,163.00	11.59	354.47	10,138.41	-365.47	-101.82	-364.31	11.26	11.21	6.87
10,210.00	16.39	356.41	10,184.00	-354.15	-102.69	-352.97	10.26	10.21	4.13
10,257.00	23.12	0.34	10,228.21	-338.28	-103.05	-337.11	14.59	14.32	8.36
10,304.00	31.46	0.46	10,269.94	-316.75	-102.90	-315.58	17.75	17.74	0.26
10,351.00	35.93	358.62	10,309.04	-290.69	-103.13	-289.51	9.75	9.51	-3.91
10,398.00	39.82	358.26	10,346.13	-261.85	-103.92	-260.67	8.29	8.28	-0.77
10,445.00	45.68	1.37	10,380.63	-229.97	-103.98	-228.79	13.25	12.47	6.62
10,492.00	50.39	3.40	10,412.05	-195.06	-102.50	-193.91	10.52	10.02	4.32
10,539.00	54.80	3.85	10,440.60	-157.81	-100.14	-156.68	9.41	9.38	0.96
10,586.00	60.61	2.60	10,465.70	-118.16	-97.92	-117.06	12.56	12.36	-2.66
10,633.00	66.68	3.25	10,486.55	-76.12	-95.76	-75.05	12.97	12.91	1.38
10,680.00	71.84	0.21	10,503.19	-32.21	-94.46	-31.15	12.53	10.98	-6.47
10,727.00	76.36	359.61	10,516.07	12.98	-94.53	14.04	9.70	9.62	-1.28
10,774.00	81.73	359.11	10,525.00	59.10	-95.05	60.16	11.47	11.43	-1.06
10,821.00	86.84	359.48	10,529.67	105.85	-95.62	106.91	10.90	10.87	0.79
10,843.20	88.09	358.53	10,530.66	128.02	-96.01	129.09	7.06	5.62	-4.28
LP (Winnebago 30 State Com 502H)									
10,868.00	89.48	357.47	10,531.18	152.80	-96.87	153.88	7.06	5.62	-4.27
10,916.00	89.64	356.83	10,531.55	200.74	-99.26	201.84	1.37	0.33	-1.33
10,984.00	90.25	355.91	10,531.62	268.60	-103.56	269.75	1.62	0.90	-1.35
11,078.00	90.24	358.54	10,531.22	362.48	-108.11	363.67	2.80	-0.01	2.80
11,172.00	90.45	357.93	10,530.65	456.44	-111.01	457.65	0.69	0.22	-0.65
11,266.00	90.60	356.84	10,529.79	550.33	-115.30	551.59	1.17	0.16	-1.16
11,361.00	90.45	358.27	10,528.92	645.24	-119.35	646.54	1.51	-0.16	1.51
11,455.00	90.41	358.49	10,528.21	739.20	-122.01	740.52	0.24	-0.04	0.23
11,549.00	90.55	358.06	10,527.42	833.15	-124.84	834.50	0.48	0.15	-0.46
11,642.00	90.46	357.48	10,526.61	926.08	-128.46	927.46	0.63	-0.10	-0.62
11,737.00	90.39	0.83	10,525.90	1,021.05	-129.86	1,022.44	3.53	-0.07	3.53
11,831.00	90.43	0.56	10,525.23	1,115.04	-128.72	1,116.41	0.29	0.04	-0.29



Total Directional Services

Survey Report



Company:	Centennial Resource Development, LLC	Local Co-ordinate Reference:	Well Winnebago 30 State Com 502H
Project:	Lea County, NM (NAD 83 - UTM Zone 13 - True)	TVD Reference:	3455.1' GE + 26.5' KB @ 3481.60usft
Site:	Winnebago 30 State Com	MD Reference:	3455.1' GE + 26.5' KB @ 3481.60usft
Well:	Winnebago 30 State Com 502H	North Reference:	True
Wellbore:	OH	Survey Calculation Method:	Minimum Curvature
Design:	OH	Database:	EDM 5000.15 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
11,925.00	90.45	1.43	10,524.51	1,209.03	-127.08	1,210.37	0.93	0.02	0.93
12,019.00	90.48	0.68	10,523.74	1,303.01	-125.35	1,304.33	0.80	0.03	-0.80
12,113.00	90.45	0.05	10,522.98	1,397.00	-124.75	1,398.31	0.67	-0.03	-0.67
12,208.00	90.62	359.98	10,522.09	1,492.00	-124.73	1,493.30	0.19	0.18	-0.07
12,302.00	90.42	359.07	10,521.24	1,585.99	-125.51	1,587.29	0.99	-0.21	-0.97
12,396.00	90.24	1.26	10,520.70	1,679.98	-125.24	1,681.28	2.34	-0.19	2.33
12,490.00	90.49	359.27	10,520.10	1,773.97	-124.80	1,775.26	2.13	0.27	-2.12
12,584.00	90.20	0.17	10,519.53	1,867.97	-125.26	1,869.25	1.01	-0.31	0.96
12,678.00	91.04	0.44	10,518.52	1,961.96	-124.76	1,963.24	0.94	0.89	0.29
12,772.00	91.43	0.70	10,516.49	2,055.94	-123.83	2,057.19	0.50	0.41	0.28
12,866.00	91.36	0.74	10,514.20	2,149.90	-122.65	2,151.14	0.09	-0.07	0.04
12,960.00	91.39	1.66	10,511.95	2,243.85	-120.68	2,245.06	0.98	0.03	0.98
13,054.00	91.39	0.49	10,509.67	2,337.81	-118.92	2,338.99	1.24	0.00	-1.24
13,149.00	91.20	1.02	10,507.52	2,432.77	-117.66	2,433.94	0.59	-0.20	0.56
13,243.00	91.19	1.12	10,505.56	2,526.74	-115.91	2,527.87	0.11	-0.01	0.11
13,337.00	91.34	359.02	10,503.48	2,620.71	-115.79	2,621.84	2.24	0.16	-2.23
13,431.00	91.16	0.56	10,501.43	2,714.68	-116.14	2,715.81	1.65	-0.19	1.64
13,525.00	91.25	0.13	10,499.46	2,808.66	-115.57	2,809.78	0.47	0.10	-0.46
13,619.00	91.51	0.88	10,497.19	2,902.63	-114.74	2,903.73	0.84	0.28	0.80
13,714.00	92.20	359.28	10,494.12	2,997.57	-114.61	2,998.67	1.83	0.73	-1.68
13,808.00	91.64	359.21	10,490.97	3,091.51	-115.85	3,092.62	0.60	-0.60	-0.07
13,902.00	91.37	1.49	10,488.50	3,185.47	-115.28	3,186.56	2.44	-0.29	2.43
13,996.00	92.49	0.40	10,485.33	3,279.40	-113.73	3,280.47	1.66	1.19	-1.16
14,090.00	93.59	358.90	10,480.35	3,373.26	-114.30	3,374.33	1.98	1.17	-1.60
14,184.00	92.82	359.60	10,475.09	3,467.11	-115.53	3,468.18	1.11	-0.82	0.74
14,279.00	92.66	0.78	10,470.55	3,562.00	-115.21	3,563.06	1.25	-0.17	1.24
14,372.00	92.84	359.64	10,466.09	3,654.89	-114.87	3,655.94	1.24	0.19	-1.23
14,467.00	93.03	0.38	10,461.22	3,749.76	-114.85	3,750.81	0.80	0.20	0.78
14,561.00	92.42	0.75	10,456.75	3,843.65	-113.93	3,844.69	0.76	-0.65	0.39
14,655.00	93.12	359.11	10,452.21	3,937.54	-114.04	3,938.57	1.90	0.74	-1.74
14,749.00	92.09	0.06	10,447.94	4,031.44	-114.72	4,032.47	1.49	-1.10	1.01
14,843.00	92.84	0.85	10,443.90	4,125.34	-113.98	4,126.36	1.16	0.80	0.84
14,937.00	92.45	0.92	10,439.56	4,219.23	-112.53	4,220.23	0.42	-0.41	0.07
15,031.00	91.70	0.79	10,436.15	4,313.16	-111.13	4,314.13	0.81	-0.80	-0.14
15,125.00	92.00	359.65	10,433.12	4,407.11	-110.76	4,408.07	1.25	0.32	-1.21
15,219.00	91.74	359.29	10,430.05	4,501.05	-111.63	4,502.02	0.47	-0.28	-0.38
15,313.00	91.64	0.39	10,427.28	4,595.01	-111.90	4,595.98	1.17	-0.11	1.17
15,407.00	90.84	359.24	10,425.25	4,688.99	-112.20	4,689.95	1.49	-0.85	-1.22
15,501.00	90.59	0.63	10,424.07	4,782.98	-112.31	4,783.93	1.50	-0.27	1.48
15,548.11	90.89	0.77	10,423.46	4,830.08	-111.73	4,831.03	0.70	0.64	0.30
S19/30 Crossing									
15,595.00	91.19	0.91	10,422.61	4,876.96	-111.04	4,877.89	0.70	0.64	0.30
15,690.00	90.83	359.57	10,420.94	4,971.94	-110.65	4,972.87	1.46	-0.38	-1.41
15,784.00	90.04	0.73	10,420.22	5,065.93	-110.40	5,066.85	1.49	-0.84	1.23

Total Directional Services

Survey Report

Company: Centennial Resource Development, LLC
Project: Lea County, NM (NAD 83 - UTM Zone 13 - True)
Site: Winnebago 30 State Com
Well: Winnebago 30 State Com 502H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well Winnebago 30 State Com 502H
TVD Reference: 3455.1' GE + 26.5' KB @ 3481.60usft
MD Reference: 3455.1' GE + 26.5' KB @ 3481.60usft
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.15 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
15,878.00	91.46	0.44	10,418.99	5,159.92	-109.44	5,160.82	1.54	1.51	-0.31
15,972.00	91.04	0.87	10,416.94	5,253.89	-108.37	5,254.77	0.64	-0.45	0.46
16,066.00	89.44	1.02	10,416.55	5,347.87	-106.81	5,348.73	1.71	-1.70	0.16
16,160.00	89.92	0.25	10,417.07	5,441.86	-105.77	5,442.71	0.97	0.51	-0.82
16,254.00	89.68	0.05	10,417.40	5,535.86	-105.53	5,536.70	0.33	-0.26	-0.21
16,349.00	89.64	0.58	10,417.97	5,630.86	-105.00	5,631.68	0.56	-0.04	0.56
16,443.00	89.86	359.96	10,418.38	5,724.86	-104.56	5,725.67	0.70	0.23	-0.66
16,537.00	90.35	0.17	10,418.20	5,818.86	-104.46	5,819.66	0.57	0.52	0.22
16,631.00	90.71	359.76	10,417.34	5,912.85	-104.51	5,913.65	0.58	0.38	-0.44
16,724.00	90.91	359.69	10,416.02	6,005.84	-104.96	6,006.64	0.23	0.22	-0.08
16,819.00	90.34	0.50	10,414.98	6,100.83	-104.80	6,101.63	1.04	-0.60	0.85
16,913.00	90.66	359.95	10,414.16	6,194.83	-104.43	6,195.61	0.68	0.34	-0.59
17,006.00	90.52	0.27	10,413.21	6,287.82	-104.25	6,288.60	0.38	-0.15	0.34
17,100.00	90.69	0.34	10,412.21	6,381.82	-103.75	6,382.58	0.20	0.18	0.07
17,194.00	90.94	359.17	10,410.88	6,475.81	-104.16	6,476.57	1.27	0.27	-1.24
17,289.00	90.64	359.37	10,409.57	6,570.79	-105.37	6,571.56	0.38	-0.32	0.21
17,383.00	90.77	359.47	10,408.41	6,664.78	-106.32	6,665.55	0.17	0.14	0.11
17,477.00	90.73	359.39	10,407.18	6,758.76	-107.25	6,759.54	0.10	-0.04	-0.09
17,571.00	90.43	0.97	10,406.23	6,852.76	-106.96	6,853.52	1.71	-0.32	1.68
17,665.00	90.59	0.81	10,405.39	6,946.74	-105.50	6,947.49	0.24	0.17	-0.17
17,759.00	90.36	358.87	10,404.61	7,040.73	-105.76	7,041.48	2.08	-0.24	-2.06
17,853.00	90.11	359.46	10,404.23	7,134.72	-107.13	7,135.47	0.68	-0.27	0.63
17,948.00	90.77	359.76	10,403.50	7,229.72	-107.78	7,230.47	0.76	0.69	0.32
18,042.00	90.69	1.02	10,402.30	7,323.70	-107.14	7,324.44	1.34	-0.09	1.34
18,136.00	90.67	0.10	10,401.18	7,417.69	-106.22	7,418.42	0.98	-0.02	-0.98
18,230.00	91.14	359.03	10,399.70	7,511.68	-106.93	7,512.40	1.24	0.50	-1.14
18,324.00	90.88	359.89	10,398.04	7,605.66	-107.82	7,606.39	0.96	-0.28	0.91
18,418.00	90.62	0.89	10,396.81	7,699.64	-107.18	7,700.36	1.10	-0.28	1.06
18,512.00	90.91	359.37	10,395.56	7,793.63	-106.96	7,794.34	1.65	0.31	-1.62
18,606.00	90.67	358.86	10,394.26	7,887.61	-108.42	7,888.33	0.60	-0.26	-0.54
18,700.00	90.91	0.22	10,392.96	7,981.60	-109.17	7,982.32	1.47	0.26	1.45
18,794.00	90.83	359.20	10,391.54	8,075.59	-109.65	8,076.31	1.09	-0.09	-1.09
18,888.00	90.60	359.16	10,390.36	8,169.57	-110.99	8,170.30	0.25	-0.24	-0.04
18,982.00	90.69	0.16	10,389.31	8,263.56	-111.55	8,264.29	1.07	0.10	1.06
19,076.00	90.83	359.58	10,388.06	8,357.55	-111.76	8,358.28	0.63	0.15	-0.62
19,170.00	90.62	359.98	10,386.87	8,451.54	-112.12	8,452.27	0.48	-0.22	0.43
19,264.00	90.85	359.67	10,385.66	8,545.53	-112.41	8,546.26	0.41	0.24	-0.33
19,358.00	90.90	359.47	10,384.23	8,639.52	-113.11	8,640.24	0.22	0.05	-0.21
19,452.00	90.74	359.65	10,382.88	8,733.51	-113.84	8,734.23	0.26	-0.17	0.19
19,547.00	90.76	0.93	10,381.64	8,828.50	-113.36	8,829.21	1.35	0.02	1.35
19,641.00	90.90	359.44	10,380.28	8,922.48	-113.05	8,923.19	1.59	0.15	-1.59
19,735.00	90.63	0.84	10,379.02	9,016.47	-112.82	9,017.17	1.52	-0.29	1.49
19,829.00	90.92	359.61	10,377.75	9,110.46	-112.45	9,111.15	1.34	0.31	-1.31



Total Directional Services

Survey Report



Company: Centennial Resource Development, LLC
Project: Lea County, NM (NAD 83 - UTM Zone 13 - True)
Site: Winnebago 30 State Com
Well: Winnebago 30 State Com 502H
Wellbore: OH
Design: OH

Local Co-ordinate Reference: Well Winnebago 30 State Com 502H
TVD Reference: 3455.1' GE + 26.5' KB @ 3481.60usft
MD Reference: 3455.1' GE + 26.5' KB @ 3481.60usft
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.15 Single User Db

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
19,923.00	90.98	359.04	10,376.19	9,204.44	-113.56	9,205.14	0.61	0.06	-0.61
20,017.00	90.87	359.09	10,374.68	9,298.42	-115.09	9,299.12	0.13	-0.12	0.05
20,111.00	90.50	1.36	10,373.55	9,392.40	-114.73	9,393.10	2.45	-0.39	2.41
20,206.00	90.78	0.38	10,372.49	9,487.38	-113.28	9,488.06	1.07	0.29	-1.03
20,300.00	91.55	359.98	10,370.58	9,581.36	-112.99	9,582.03	0.92	0.82	-0.43
20,394.00	91.65	0.79	10,367.95	9,675.32	-112.36	9,675.98	0.87	0.11	0.86
20,488.00	92.30	0.95	10,364.71	9,769.26	-110.93	9,769.89	0.71	0.69	0.17
20,582.00	91.60	359.66	10,361.52	9,863.20	-110.43	9,863.82	1.56	-0.74	-1.37
20,676.00	91.86	359.32	10,358.68	9,957.15	-111.27	9,957.77	0.46	0.28	-0.36
20,697.00	91.92	359.15	10,357.99	9,978.14	-111.55	9,978.76	0.86	0.29	-0.81
20,723.12	91.92	359.15	10,357.11	10,004.24	-111.93	10,004.86	0.00	0.00	0.00
PBHL (Winnebago 30 State Com 502H)									
20,729.00	91.92	359.15	10,356.91	10,010.12	-112.02	10,010.74	0.00	0.00	0.00
BHL									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
10,069.00	10,045.13	-376.00	-100.54	KOP
15,548.11	10,423.46	4,830.08	-111.73	S19/30 Crossing
20,729.00	10,356.91	10,010.12	-112.02	BHL

Checked By: _____ Approved By: _____ Date: _____