

**CENTENNIAL RESOURCE
DEVELOPMENT, LLC**

**LEA COUNTY, NM (NAD 83 - UTM ZONE 13 - TRUE)
SW SW SEC. 12 T22S R34E
CHORIZO 12 STATE COM #601H
31 March, 2019**

Survey: FINAL SURVEYS





Project: LEA COUNTY, NM (NAD 83 - UTM ZONE 13 - TRUE)
 Site: SW SW SEC. 12 T22S R34E
 Well: CHORIZO 12 STATE COM #601H
 Wellbore: JOB # 2019-175-650
 Design: FINAL SURVEYS



SECTION DETAILS

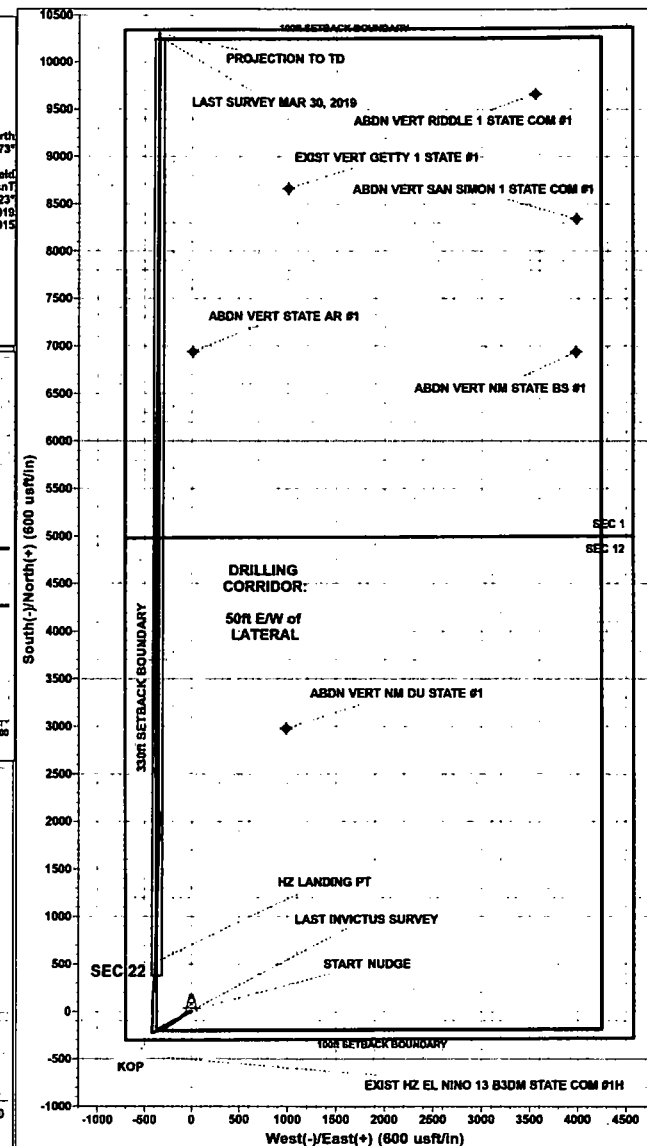
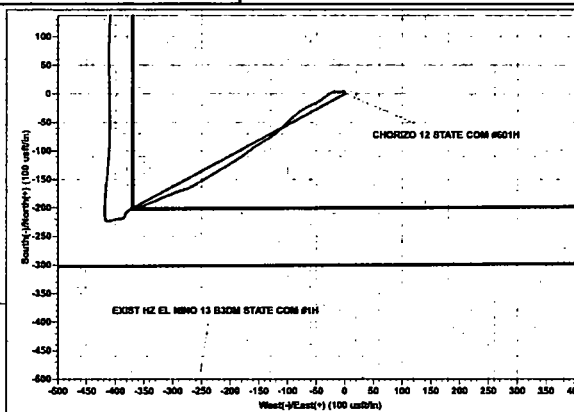
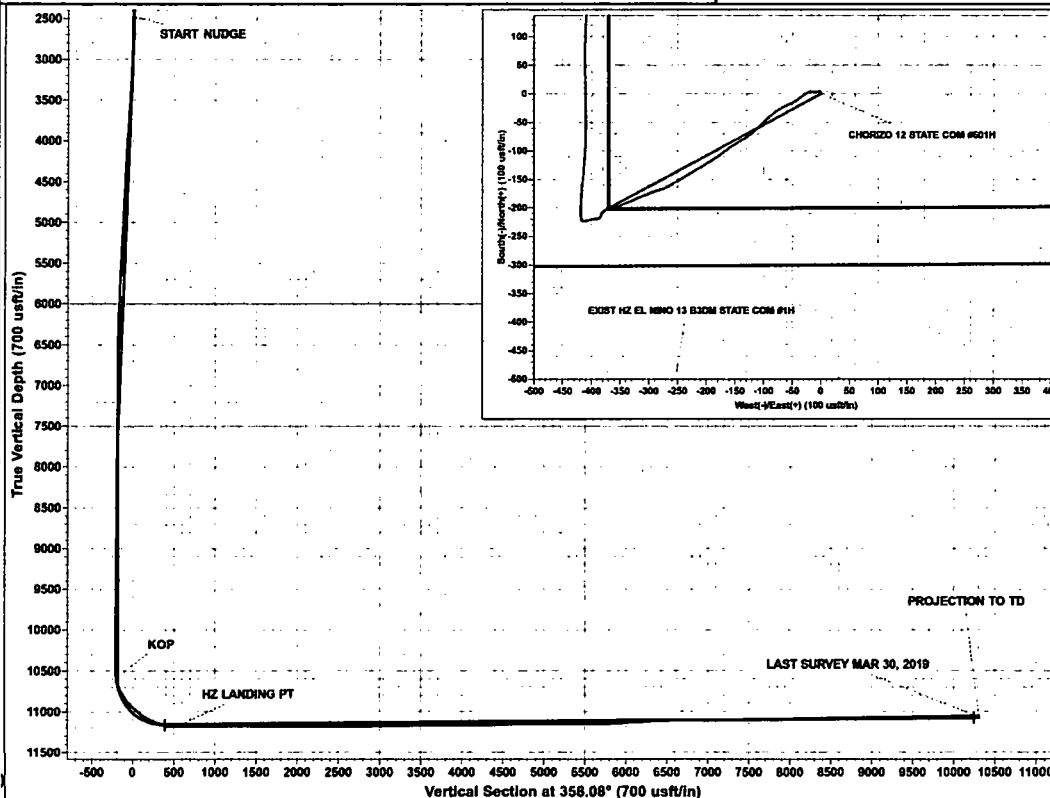
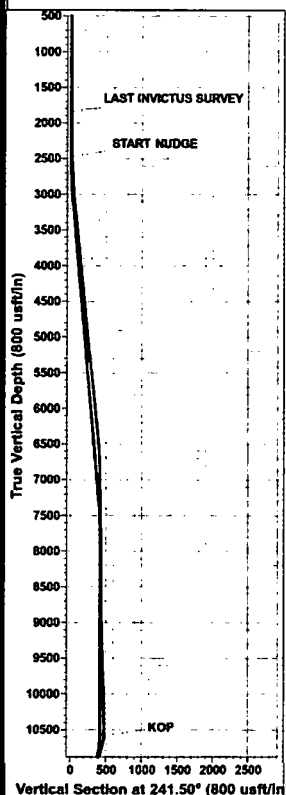
MD	Inc	Azi	TVD	+N-S	+E-W	Dleg	TFace	VSec	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL: 300' FSL & 700' FSL of Sec 12
2500.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00	START NUDGE (1"/100' BUR)
3000.00	5.00	241.50	2999.37	-10.40	-19.16	1.00	241.50	-9.75	EOB TO 5' INC
7345.00	5.00	241.50	7327.83	-191.10	-351.98	0.00	0.00	-179.18	END OF TANGENT
7845.00	0.00	0.00	7827.20	-201.50	-371.12	1.00	180.00	-188.93	EOB TO VERTICAL
10608.48	0.00	0.00	10588.68	-201.50	-371.12	0.00	0.00	-188.93	KOP (10"/100' BUR)
11511.48	90.50	0.15	11181.82	376.45	-369.61	10.00	0.15	388.65	HZ LANDING POINT
21374.59	90.50	0.15	11075.50	10239.15	-343.90	0.00	0.00	0.00	LTP/BHL: 100' FNL & 330' FNL of Sec 1

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude
BHL - CHORIZO 12 STATE COM #601H	11075.50	10239.15	-343.90	11774758.34	2124389.56	32.427831	-103.431007
HZ LP - CHORIZO 12 STATE COM #601H	11181.82	376.45	-369.61	11764897.62	2124508.69	32.400823	-103.431090



Azimuths to True North
 Magnetic North: 6.73°
 Magnetic Field
 Strength: 4700.0 uT
 Dip Angle: 60.23°
 Date: 11/01/2019
 Model: IGRF2015



Survey Report



Company:	CENTENNIAL RESOURCE DEVELO	Local Co-ordinate Reference:	Well CHORIZO 12 STATE COM #601H
Project:	LEA COUNTY, NM (NAD 83 - UTM Z	TVD Reference:	KB 25' @ 3529.00usft (H&P 650)
Site:	SW SW SEC. 12 T22S R34E	MD Reference:	KB 25' @ 3529.00usft (H&P 650)
Well:	CHORIZO 12 STATE COM #601H	North Reference:	True
Wellbore:	JOB # 2019-175-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Project	LEA COUNTY, NM (NAD 83 - UTM ZONE 13 - TRUE)		
Map System:	Universal Transverse Mercator (US Survey Fee	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		Using geodetic scale factor

Site SW SW SEC. 12 T22S R34E

Site Position:		Northing:	11,764,526.69 usft	Latitude:	32.399788
From:	Map	Easting:	2,124,883.74 usft	Longitude:	-103.429893
Position Uncertainty:	0.00 usft	Slot Radius:	1.10ft	Grid Convergence:	0.84 °

Well CHORIZO 12 STATE COM #601H

Well Position	+N/-S	0.00 usft	Northing:	11,764,526.69 usft	Latitude:	32.399788
	+E/-W	0.00 usft	Easting:	2,124,883.74 usft	Longitude:	-103.429893
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,504.00 usft

Wellbore JOB # 2019-175-650

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	11/01/2019	6.73	60.23	47,895

Design FINAL SURVEYS

Audit Notes:

Version:	1.0	Phase:	ACTUAL	Tie On Depth:	0.00
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Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	358.08

Survey Program Date 31/03/2019

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
141.00	21,416.00	FINAL SURVEYS (JOB # 2019-175-650)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.00	0.00	3,529.00	0.00	0.00	0.00	0.00	0.00	0.00
141.00	0.70	336.75	141.00	3,388.00	0.79	-0.34	0.80	0.50	0.50	0.00
229.00	0.30	274.75	228.99	3,300.01	1.30	-0.78	1.33	0.70	-0.45	-70.45
320.00	0.40	11.75	319.99	3,209.01	1.64	-0.95	1.67	0.58	0.11	106.59
414.00	0.40	358.75	413.99	3,115.01	2.28	-0.89	2.31	0.10	0.00	-13.83
509.00	0.40	286.75	508.99	3,020.01	2.71	-1.22	2.75	0.49	0.00	-75.79
603.00	0.60	344.75	602.99	2,926.01	3.28	-1.66	3.33	0.55	0.21	61.70
698.00	0.40	353.75	697.98	2,831.02	4.09	-1.83	4.15	0.23	-0.21	9.47
792.00	0.20	303.75	791.98	2,737.02	4.51	-2.00	4.57	0.33	-0.21	-53.19
886.00	0.20	244.75	885.98	2,643.02	4.53	-2.29	4.60	0.21	0.00	-62.77
980.00	0.40	279.75	979.98	2,549.02	4.51	-2.76	4.60	0.28	0.21	37.23
1,075.00	0.10	195.75	1,074.98	2,454.02	4.49	-3.11	4.59	0.42	-0.32	-88.42
1,170.00	0.40	198.75	1,169.98	2,359.02	4.10	-3.24	4.20	0.32	0.32	3.16

Survey Report



Company: CENTENNIAL RESOURCE DEVELO
Project: LEA COUNTY, NM (NAD 83 - UTM Z
Site: SW SW SEC. 12 T22S R34E
Well: CHORIZO 12 STATE COM #601H
Wellbore: JOB # 2019-175-650
Design: FINAL SURVEYS

Local Co-ordinate Reference: Well CHORIZO 12 STATE COM #601H
TVD Reference: KB 25' @ 3529.00usft (H&P 650)
MD Reference: KB 25' @ 3529.00usft (H&P 650)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Database 1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
1,265.00	0.20	287.75	1,264.98	2,264.02	3.83	-3.50	3.95	0.47	-0.21	93.68
1,359.00	0.30	255.75	1,358.97	2,170.03	3.82	-3.90	3.95	0.18	0.11	-34.04
1,454.00	0.30	244.75	1,453.97	2,075.03	3.66	-4.36	3.80	0.06	0.00	-11.58
1,548.00	0.50	279.75	1,547.97	1,981.03	3.62	-4.99	3.79	0.33	0.21	37.23
1,643.00	0.50	193.75	1,642.97	1,886.03	3.29	-5.50	3.47	0.72	0.00	-90.53
1,737.00	0.50	217.75	1,736.97	1,792.03	2.57	-5.85	2.76	0.22	0.00	25.53
LAST INVICTUS SURVEY										
1,842.00	0.30	297.75	1,841.96	1,687.04	2.33	-6.37	2.54	0.51	-0.19	76.19
1,941.00	0.55	273.72	1,940.96	1,588.04	2.48	-7.07	2.72	0.30	0.25	-24.27
2,004.00	0.66	259.43	2,003.96	1,525.04	2.44	-7.73	2.69	0.30	0.17	-22.68
2,098.00	0.82	273.24	2,097.95	1,431.05	2.37	-8.93	2.67	0.25	0.17	14.69
2,192.00	1.00	276.17	2,191.94	1,337.06	2.50	-10.42	2.85	0.20	0.19	3.12
2,286.00	1.11	281.59	2,285.92	1,243.08	2.77	-12.13	3.18	0.16	0.12	5.77
2,380.00	1.20	284.73	2,379.90	1,149.10	3.20	-13.97	3.67	0.12	0.10	3.34
START NUDGE										
2,474.00	1.66	276.78	2,473.87	1,055.13	3.62	-16.28	4.16	0.53	0.49	-8.46
2,569.00	2.50	258.45	2,568.81	960.19	3.36	-19.67	4.02	1.12	0.88	-19.29
2,662.00	3.54	240.74	2,661.68	867.32	1.55	-24.17	2.36	1.49	1.12	-19.04
2,757.00	3.92	234.40	2,756.48	772.52	-1.77	-29.36	-0.78	0.59	0.40	-6.67
2,850.00	3.52	233.76	2,849.29	679.71	-5.31	-34.25	-4.16	0.43	-0.43	-0.69
2,944.00	3.34	233.73	2,943.12	585.88	-8.63	-38.79	-7.33	0.19	-0.19	-0.03
3,038.00	4.06	236.02	3,036.92	492.08	-12.11	-43.75	-10.64	0.78	0.77	2.44
3,132.00	5.92	243.53	3,130.56	398.44	-16.14	-50.85	-14.42	2.09	1.98	7.99
3,226.00	6.55	246.55	3,224.00	305.00	-20.43	-60.11	-18.40	0.76	0.67	3.21
3,321.00	6.55	240.47	3,318.39	210.61	-25.26	-69.80	-22.90	0.73	0.00	-6.40
3,415.00	6.37	233.32	3,411.79	117.21	-31.01	-78.64	-28.36	0.88	-0.19	-7.61
3,509.00	6.01	228.38	3,505.24	23.76	-37.40	-86.51	-34.47	0.68	-0.38	-5.26
3,602.00	5.84	227.22	3,597.75	-68.75	-43.84	-93.62	-40.68	0.22	-0.18	-1.25
3,696.00	5.80	225.81	3,691.26	-162.26	-50.40	-100.53	-47.00	0.16	-0.04	-1.50
3,790.00	5.76	225.60	3,784.78	-255.78	-57.01	-107.31	-53.38	0.05	-0.04	-0.22
3,884.00	5.81	225.71	3,878.30	-349.30	-63.64	-114.08	-59.77	0.05	0.05	0.12
3,979.00	5.64	232.82	3,972.83	-443.83	-69.82	-121.25	-65.71	0.77	-0.18	7.48
4,073.00	5.61	237.44	4,066.38	-537.38	-75.08	-128.80	-70.71	0.48	-0.03	4.91
4,167.00	5.66	237.84	4,159.93	-630.93	-80.02	-136.60	-75.39	0.07	0.05	0.43
4,261.00	5.52	238.11	4,253.48	-724.48	-84.88	-144.36	-79.98	0.15	-0.15	0.29
4,355.00	5.45	237.84	4,347.05	-818.05	-89.64	-151.98	-84.49	0.08	-0.07	-0.29
4,449.00	5.45	236.16	4,440.62	-911.62	-94.50	-159.46	-89.10	0.17	0.00	-1.79
4,543.00	5.33	232.33	4,534.21	-1,005.21	-99.66	-166.63	-94.01	0.40	-0.13	-4.07
4,637.00	5.52	229.06	4,627.79	-1,098.79	-105.29	-173.50	-99.40	0.39	0.20	-3.48
4,731.00	5.83	236.66	4,721.33	-1,192.33	-110.87	-180.90	-104.74	0.86	0.33	8.09
4,825.00	5.77	238.17	4,814.85	-1,285.85	-115.99	-188.90	-109.58	0.17	-0.06	1.61
4,919.00	5.82	238.95	4,908.37	-1,379.37	-120.94	-197.00	-114.26	0.10	0.05	0.83
5,013.00	5.64	238.63	5,001.90	-1,472.90	-125.80	-205.03	-118.85	0.19	-0.19	-0.34
5,107.00	5.94	238.82	5,095.42	-1,566.42	-130.72	-213.13	-123.50	0.32	0.32	0.20
5,202.00	5.99	238.38	5,189.90	-1,660.90	-135.87	-221.56	-128.35	0.07	0.05	-0.46
5,296.00	6.31	238.62	5,283.36	-1,754.36	-141.13	-230.15	-133.32	0.34	0.34	0.26
5,390.00	6.42	239.34	5,376.78	-1,847.78	-146.50	-239.08	-138.39	0.14	0.12	0.77
5,484.00	6.31	239.11	5,470.20	-1,941.20	-151.83	-248.03	-143.42	0.12	-0.12	-0.24
5,546.00	6.35	240.11	5,531.82	-2,002.82	-155.29	-253.93	-146.68	0.19	0.06	1.61
5,648.00	6.96	238.31	5,633.14	-2,104.14	-161.35	-264.08	-152.39	0.63	0.60	-1.76
5,742.00	6.41	251.56	5,726.50	-2,197.50	-166.00	-273.90	-156.71	1.74	-0.59	14.10
5,836.00	6.08	251.87	5,819.95	-2,290.95	-169.21	-283.61	-159.59	0.35	-0.35	0.33
5,930.00	6.10	250.90	5,913.41	-2,384.41	-172.39	-293.06	-162.46	0.11	0.02	-1.03

Survey Report



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Project: LEA COUNTY, NM (NAD 83 - UTM Zone 18N)
Site: SW SW SEC. 12 T22S R34E
Well: CHORIZO 12 STATE COM #601H
Wellbore: JOB # 2019-175-650
Design: FINAL SURVEYS

Local Co-ordinate Reference: Well CHORIZO 12 STATE COM #601H
TVD Reference: KB 25' @ 3529.00usft (H&P 650)
MD Reference: KB 25' @ 3529.00usft (H&P 650)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Database 1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,025.00	5.65	248.56	6,007.92	-2,478.92	-175.75	-302.18	-165.51	0.54	-0.47	-2.46
6,119.00	5.38	246.55	6,101.48	-2,572.48	-179.20	-310.53	-168.67	0.35	-0.29	-2.14
6,213.00	5.50	246.84	6,195.06	-2,666.06	-182.72	-318.72	-171.92	0.13	0.13	0.31
6,307.00	5.49	247.24	6,288.63	-2,759.63	-186.23	-327.01	-175.15	0.04	-0.01	0.43
6,401.00	5.71	247.93	6,382.18	-2,853.18	-189.73	-335.49	-178.36	0.24	0.23	0.73
6,495.00	5.46	246.23	6,475.73	-2,946.73	-193.29	-343.91	-181.64	0.32	-0.27	-1.81
6,589.00	4.36	253.68	6,569.38	-3,040.38	-196.10	-351.43	-184.19	1.35	-1.17	7.93
6,684.00	3.14	257.28	6,664.18	-3,135.18	-197.68	-357.44	-185.57	1.31	-1.28	3.79
6,778.00	1.70	323.44	6,758.11	-3,229.11	-197.13	-360.78	-184.91	3.09	-1.53	70.38
6,872.00	0.53	230.86	6,852.09	-3,323.09	-196.29	-361.95	-184.02	1.92	-1.24	-98.49
6,966.00	0.65	174.99	6,946.09	-3,417.09	-197.09	-362.24	-184.82	0.60	0.13	-59.44
7,060.00	0.66	176.31	7,040.08	-3,511.08	-198.16	-362.16	-185.89	0.02	0.01	1.40
7,154.00	0.77	236.55	7,134.08	-3,605.08	-199.05	-362.65	-186.77	0.77	0.12	64.09
7,248.00	0.95	255.59	7,228.07	-3,699.07	-199.59	-363.93	-187.26	0.36	0.19	20.26
7,342.00	1.15	255.94	7,322.05	-3,793.05	-200.02	-365.60	-187.63	0.21	0.21	0.37
7,436.00	1.42	258.32	7,416.03	-3,887.03	-200.48	-367.66	-188.03	0.29	0.29	2.53
7,530.00	1.37	246.93	7,510.00	-3,981.00	-201.16	-369.83	-188.63	0.30	-0.05	-12.12
7,625.00	1.47	245.82	7,604.97	-4,075.97	-202.10	-371.99	-189.50	0.11	0.11	-1.17
7,719.00	1.40	243.06	7,698.94	-4,169.94	-203.12	-374.11	-190.44	0.10	-0.07	-2.94
7,813.00	1.09	244.33	7,792.92	-4,263.92	-204.02	-375.94	-191.29	0.33	-0.33	1.35
7,907.00	1.06	228.62	7,886.90	-4,357.90	-204.99	-377.40	-192.20	0.31	-0.03	-16.71
8,001.00	1.05	231.91	7,980.89	-4,451.89	-206.09	-378.73	-193.26	0.07	-0.01	3.50
8,095.00	1.09	232.89	8,074.87	-4,545.87	-207.16	-380.12	-194.29	0.05	0.04	1.04
8,189.00	0.31	100.68	8,168.86	-4,639.86	-207.75	-380.58	-194.86	1.40	-0.83	-140.65
8,283.00	0.53	74.19	8,262.86	-4,733.86	-207.68	-379.92	-194.81	0.31	0.23	-28.18
8,377.00	0.32	64.87	8,356.86	-4,827.86	-207.45	-379.26	-194.60	0.23	-0.22	-9.91
8,471.00	0.08	129.51	8,450.86	-4,921.86	-207.38	-378.97	-194.54	0.31	-0.26	68.77
8,565.00	0.33	269.45	8,544.86	-5,015.86	-207.42	-379.19	-194.58	0.42	0.27	148.87
8,658.00	0.77	244.19	8,637.85	-5,108.85	-207.70	-380.02	-194.82	0.53	0.47	-27.16
8,752.00	0.88	214.67	8,731.84	-5,202.84	-208.57	-381.00	-195.66	0.46	0.12	-31.40
8,846.00	0.87	204.67	8,825.83	-5,296.83	-209.81	-381.71	-196.88	0.16	-0.01	-10.64
8,940.00	1.22	195.10	8,919.82	-5,390.82	-211.42	-382.27	-198.47	0.41	0.37	-10.18
9,034.00	1.48	196.51	9,013.79	-5,484.79	-213.55	-382.87	-200.58	0.28	0.28	1.50
9,128.00	1.70	209.40	9,108.76	-5,579.76	-215.96	-383.91	-202.95	0.44	0.23	13.57
9,223.00	1.63	233.15	9,202.72	-5,673.72	-217.97	-385.67	-204.90	0.73	-0.07	25.27
9,317.00	1.93	264.72	9,296.67	-5,767.67	-218.92	-388.31	-205.76	1.07	0.32	33.59
9,411.00	1.96	274.23	9,390.62	-5,861.62	-218.95	-391.49	-205.68	0.34	0.03	10.12
9,505.00	2.06	264.76	9,484.56	-5,955.56	-218.98	-394.78	-205.61	0.37	0.11	-10.07
9,599.00	1.87	255.34	9,578.51	-6,049.51	-219.53	-397.95	-206.04	0.40	-0.20	-10.02
9,693.00	1.69	252.61	9,672.46	-6,143.46	-220.33	-400.75	-206.75	0.21	-0.19	-2.90
9,797.00	1.26	248.35	9,776.43	-6,247.43	-221.21	-403.28	-207.55	0.43	-0.41	-4.10
9,891.00	1.43	244.19	9,870.40	-6,341.40	-222.10	-405.29	-208.37	0.21	0.18	-4.43
9,985.00	1.43	255.04	9,964.37	-6,435.37	-222.91	-407.48	-209.11	0.29	0.00	11.54
10,079.00	1.40	266.87	10,058.34	-6,529.34	-223.28	-409.76	-209.40	0.31	-0.03	12.59
10,173.00	0.90	256.86	10,152.32	-6,623.32	-223.51	-411.63	-209.57	0.57	-0.53	-10.65
10,267.00	0.94	254.06	10,246.31	-6,717.31	-223.89	-413.09	-209.90	0.06	0.04	-2.98
10,361.00	0.75	291.62	10,340.30	-6,811.30	-223.87	-414.40	-209.84	0.61	-0.20	39.96
10,455.00	0.91	311.36	10,434.29	-6,905.29	-223.15	-415.53	-209.08	0.35	0.17	21.00
10,544.00	1.42	307.12	10,523.27	-6,994.27	-222.02	-416.94	-207.90	0.58	0.57	-4.76
KOP										
10,606.00	5.54	353.51	10,585.15	-7,056.15	-218.58	-417.90	-204.43	7.54	6.65	74.82
10,644.00	8.36	357.85	10,622.87	-7,093.87	-214.00	-418.21	-199.84	7.54	7.42	11.42
10,691.00	17.75	0.06	10,668.61	-7,139.61	-203.40	-418.33	-189.24	20.00	19.98	4.70

Survey Report



Company: CENTENNIAL RESOURCE DEVELO
Project: LEA COUNTY, NM (NAD 83 - UTM Z)
Site: SW SW SEC. 12 T22S R34E
Well: CHORIZO 12 STATE COM #601H
Wellbore: JOB # 2019-175-650
Design: FINAL SURVEYS

Local Co-ordinate Reference: Well CHORIZO 12 STATE COM #601H
TVD Reference: KB 25' @ 3529.00usft (H&P 650)
MD Reference: KB 25' @ 3529.00usft (H&P 650)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Database 1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,738.00	24.46	2.77	10,712.43	-7,183.43	-186.49	-417.85	-172.36	14.42	14.28	5.77
10,785.00	28.22	5.75	10,754.54	-7,225.54	-165.71	-416.27	-151.64	8.48	8.00	6.34
10,832.00	30.95	4.96	10,795.41	-7,266.41	-142.61	-414.11	-128.63	5.87	5.81	-1.68
10,879.00	34.38	4.08	10,834.97	-7,305.97	-117.32	-412.12	-103.42	7.37	7.30	-1.87
10,926.00	37.61	2.93	10,872.99	-7,343.99	-89.76	-410.44	-75.93	7.02	6.87	-2.45
10,973.00	42.92	0.68	10,908.85	-7,379.85	-59.41	-409.52	-45.63	11.71	11.30	-4.79
11,020.00	47.31	358.81	10,942.01	-7,413.01	-26.12	-409.68	-12.35	9.76	9.34	-3.98
11,067.00	48.96	358.04	10,973.37	-7,444.37	8.87	-410.65	22.65	3.72	3.51	-1.64
11,115.00	50.57	359.04	11,004.38	-7,475.38	45.50	-411.58	59.29	3.71	3.35	2.08
11,162.00	51.25	0.60	11,034.01	-7,505.01	81.97	-411.69	95.75	2.95	1.45	3.32
11,209.00	56.25	3.56	11,061.80	-7,532.80	119.83	-410.29	133.54	11.79	10.64	6.30
11,256.00	61.10	5.39	11,086.23	-7,557.23	159.84	-407.14	173.42	10.84	10.32	3.89
11,303.00	64.18	4.57	11,107.83	-7,578.83	201.42	-403.52	214.85	6.73	6.55	-1.74
11,350.00	67.53	4.16	11,127.05	-7,598.05	244.18	-400.26	257.48	7.17	7.13	-0.87
11,397.00	71.64	3.39	11,143.44	-7,614.44	288.12	-397.36	301.30	8.88	8.74	-1.64
11,444.00	74.75	2.93	11,157.03	-7,628.03	333.04	-394.88	346.11	6.68	6.62	-0.98
11,491.00	78.96	2.46	11,167.72	-7,638.72	378.75	-392.73	391.72	9.01	8.96	-1.00
11,538.00	82.77	2.88	11,175.18	-7,646.18	425.09	-390.57	437.97	8.15	8.11	0.89
11,585.00	87.54	2.79	11,179.14	-7,650.14	471.86	-388.26	484.62	10.15	10.15	-0.19
HZ LANDING PT										
11,632.00	89.08	2.30	11,180.53	-7,651.53	518.79	-386.17	531.46	3.44	3.28	-1.04
11,679.00	91.38	2.03	11,180.34	-7,651.34	565.75	-384.39	578.33	4.93	4.89	-0.57
11,791.00	91.20	1.51	11,177.82	-7,648.82	677.67	-380.94	690.07	0.49	-0.16	-0.46
11,885.00	90.98	2.29	11,176.03	-7,647.03	771.60	-377.82	783.85	0.86	-0.23	0.83
11,980.00	90.13	1.86	11,175.11	-7,646.11	866.53	-374.38	878.61	1.00	-0.89	-0.45
12,074.00	90.13	1.89	11,174.90	-7,645.90	960.48	-371.30	972.40	0.03	0.00	0.03
12,169.00	90.07	1.73	11,174.73	-7,645.73	1,055.43	-368.30	1,067.20	0.18	-0.06	-0.17
12,263.00	90.46	1.89	11,174.30	-7,645.30	1,149.38	-365.33	1,161.00	0.45	0.41	0.17
12,358.00	90.00	1.23	11,173.92	-7,644.92	1,244.35	-362.75	1,255.82	0.85	-0.48	-0.69
12,452.00	89.97	1.77	11,173.94	-7,644.94	1,338.31	-360.29	1,349.65	0.58	-0.03	0.57
12,546.00	89.44	1.72	11,174.43	-7,645.43	1,432.27	-357.43	1,443.46	0.57	-0.56	-0.05
12,640.00	89.20	1.77	11,175.54	-7,646.54	1,526.22	-354.56	1,537.26	0.26	-0.26	0.05
12,734.00	89.41	1.91	11,176.68	-7,647.68	1,620.16	-351.55	1,631.05	0.27	0.22	0.15
12,828.00	89.86	1.93	11,177.28	-7,648.28	1,714.11	-348.40	1,724.84	0.48	0.48	0.02
12,922.00	89.30	0.45	11,177.97	-7,648.97	1,808.08	-346.44	1,818.69	1.68	-0.60	-1.57
13,016.00	89.30	359.79	11,179.12	-7,650.12	1,902.08	-346.25	1,912.63	0.70	0.00	-0.70
13,110.00	89.82	359.80	11,179.84	-7,650.84	1,996.07	-346.58	2,006.58	0.55	0.55	0.01
13,204.00	89.89	0.38	11,180.08	-7,651.08	2,090.07	-346.44	2,100.52	0.62	0.07	0.62
13,298.00	90.36	359.59	11,179.87	-7,650.87	2,184.07	-346.46	2,194.47	0.98	0.50	-0.84
13,393.00	90.39	359.82	11,179.25	-7,650.25	2,279.07	-346.95	2,289.43	0.24	0.03	0.24
13,486.00	89.96	359.23	11,178.97	-7,649.97	2,372.06	-347.72	2,382.40	0.79	-0.46	-0.63
13,580.00	90.38	359.22	11,178.69	-7,649.69	2,466.05	-348.99	2,476.38	0.45	0.45	-0.01
13,675.00	90.38	359.72	11,178.06	-7,649.06	2,561.05	-349.87	2,571.35	0.53	0.00	0.53
13,769.00	90.76	359.94	11,177.12	-7,648.12	2,655.04	-350.15	2,665.30	0.47	0.40	0.23
13,863.00	90.14	359.93	11,176.38	-7,647.38	2,749.04	-350.26	2,759.25	0.66	-0.66	-0.01
13,957.00	90.57	0.02	11,175.80	-7,646.80	2,843.04	-350.30	2,853.19	0.47	0.46	0.10
14,051.00	91.23	0.48	11,174.32	-7,645.32	2,937.02	-349.89	2,947.11	0.86	0.70	0.49
14,145.00	91.27	0.43	11,172.27	-7,643.27	3,031.00	-349.14	3,041.01	0.07	0.04	-0.05
14,240.00	91.06	359.92	11,170.34	-7,641.34	3,125.98	-348.85	3,135.93	0.58	-0.22	-0.54
14,334.00	91.20	0.24	11,168.49	-7,639.49	3,219.96	-348.72	3,229.85	0.37	0.15	0.34
14,428.00	91.36	0.36	11,166.39	-7,637.39	3,313.93	-348.23	3,323.75	0.21	0.17	0.13
14,523.00	90.88	359.83	11,164.53	-7,635.53	3,408.91	-348.07	3,418.68	0.75	-0.51	-0.56
14,617.00	90.83	0.01	11,163.13	-7,634.13	3,502.90	-348.20	3,512.62	0.20	-0.05	0.19

Survey Report



Company: CENTENNIAL RESOURCE DEVELOPMENT
Project: LEA COUNTY, NM (NAD 83 - UTM Zone 18N)
Site: SW SW SEC. 12 T22S R34E
Well: CHORIZO 12 STATE COM #601H
Wellbore: JOB # 2019-175-650
Design: FINAL SURVEYS

Local Co-ordinate Reference: Well CHORIZO 12 STATE COM #601H
TVD Reference: KB 25' @ 3529.00usft (H&P 650)
MD Reference: KB 25' @ 3529.00usft (H&P 650)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Database 1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,711.00	90.04	359.47	11,162.42	-7,633.42	3,596.90	-348.63	3,606.57	1.02	-0.84	-0.57
14,805.00	90.45	359.72	11,162.01	-7,633.01	3,690.90	-349.29	3,700.54	0.51	0.44	0.27
14,900.00	89.72	0.10	11,161.87	-7,632.87	3,785.89	-349.44	3,795.49	0.87	-0.77	0.40
14,994.00	89.82	0.21	11,162.25	-7,633.25	3,879.89	-349.19	3,889.43	0.16	0.11	0.12
15,088.00	89.78	359.77	11,162.58	-7,633.58	3,973.89	-349.20	3,983.38	0.47	-0.04	-0.47
15,182.00	89.83	0.37	11,162.90	-7,633.90	4,067.89	-349.09	4,077.32	0.64	0.05	0.64
15,276.00	89.87	0.14	11,163.14	-7,634.14	4,161.89	-348.67	4,171.25	0.25	0.04	-0.24
15,370.00	90.73	0.16	11,162.65	-7,633.65	4,255.89	-348.42	4,265.19	0.92	0.91	0.02
15,464.00	92.07	0.14	11,160.36	-7,631.36	4,349.86	-348.18	4,359.09	1.43	1.43	-0.02
15,558.00	91.34	359.04	11,157.56	-7,628.56	4,443.81	-348.85	4,453.02	1.40	-0.78	-1.17
15,652.00	90.98	359.65	11,155.66	-7,626.66	4,537.79	-349.93	4,546.97	0.75	-0.38	0.65
15,746.00	90.95	0.48	11,154.07	-7,625.07	4,631.77	-349.82	4,640.90	0.88	-0.03	0.88
15,840.00	90.67	0.68	11,152.74	-7,623.74	4,725.76	-348.87	4,734.80	0.37	-0.30	0.21
15,934.00	91.18	0.52	11,151.23	-7,622.23	4,819.74	-347.88	4,828.70	0.57	0.54	-0.17
16,029.00	90.14	359.51	11,150.13	-7,621.13	4,914.73	-347.86	4,923.64	1.53	-1.09	-1.06
16,123.00	89.85	359.34	11,150.14	-7,621.14	5,008.72	-348.80	5,017.61	0.36	-0.31	-0.18
16,217.00	90.07	359.72	11,150.21	-7,621.21	5,102.72	-349.57	5,111.58	0.47	0.23	0.40
16,311.00	89.61	359.78	11,150.47	-7,621.47	5,196.72	-349.98	5,205.54	0.49	-0.49	0.06
16,405.00	88.94	359.63	11,151.66	-7,622.66	5,290.71	-350.47	5,299.49	0.73	-0.71	-0.16
16,499.00	90.55	0.62	11,152.08	-7,623.08	5,384.71	-350.26	5,393.43	2.01	1.71	1.05
16,593.00	90.52	0.83	11,151.20	-7,622.20	5,478.69	-349.07	5,487.32	0.23	-0.03	0.22
16,687.00	90.83	359.97	11,150.09	-7,621.09	5,572.68	-348.42	5,581.24	0.97	0.33	-0.91
16,781.00	90.71	0.33	11,148.83	-7,619.83	5,666.67	-348.17	5,675.17	0.40	-0.13	0.38
16,875.00	91.88	1.14	11,146.70	-7,617.70	5,760.64	-346.96	5,769.04	1.51	1.24	0.86
16,969.00	92.70	0.22	11,142.95	-7,613.95	5,854.56	-345.85	5,862.87	1.31	0.87	-0.98
17,063.00	93.53	0.12	11,137.84	-7,608.84	5,948.42	-345.57	5,956.66	0.89	0.88	-0.11
17,157.00	93.16	359.69	11,132.35	-7,603.35	6,042.26	-345.73	6,050.46	0.60	-0.39	-0.46
17,251.00	93.42	359.53	11,126.96	-7,597.96	6,136.10	-346.37	6,144.27	0.32	0.28	-0.17
17,345.00	92.69	359.89	11,121.95	-7,592.95	6,229.96	-346.84	6,238.10	0.87	-0.78	0.38
17,439.00	93.08	0.31	11,117.22	-7,588.22	6,323.84	-346.68	6,331.92	0.61	0.41	0.45
17,533.00	92.60	359.57	11,112.56	-7,583.56	6,417.73	-346.78	6,425.75	0.94	-0.51	-0.79
17,627.00	91.48	359.27	11,109.22	-7,580.22	6,511.66	-347.73	6,519.66	1.23	-1.19	-0.32
17,721.00	91.08	359.07	11,107.12	-7,578.12	6,605.63	-349.09	6,613.62	0.48	-0.43	-0.21
17,815.00	90.00	359.00	11,106.23	-7,577.23	6,699.61	-350.67	6,707.60	1.15	-1.15	-0.07
17,909.00	89.01	358.97	11,107.04	-7,578.04	6,793.59	-352.34	6,801.59	1.05	-1.05	-0.03
18,003.00	90.21	0.41	11,107.68	-7,578.68	6,887.58	-352.84	6,895.54	1.99	1.28	1.53
18,097.00	90.48	359.43	11,107.12	-7,578.12	6,981.58	-352.98	6,989.49	1.08	0.29	-1.04
18,192.00	90.46	359.85	11,106.34	-7,577.34	7,076.57	-353.57	7,084.45	0.44	-0.02	0.44
18,286.00	90.95	0.24	11,105.18	-7,576.18	7,170.57	-353.50	7,178.39	0.67	0.52	0.41
18,380.00	90.85	359.42	11,103.70	-7,574.70	7,264.55	-353.78	7,272.33	0.88	-0.11	-0.87
18,475.00	90.66	359.67	11,102.45	-7,573.45	7,359.54	-354.53	7,367.30	0.33	-0.20	0.26
18,569.00	90.67	0.11	11,101.36	-7,572.36	7,453.54	-354.71	7,461.24	0.47	0.01	0.47
18,663.00	91.34	0.98	11,099.71	-7,570.71	7,547.51	-353.82	7,555.14	1.17	0.71	0.93
18,757.00	90.69	0.89	11,098.05	-7,569.05	7,641.49	-352.28	7,649.01	0.70	-0.69	-0.10
18,851.00	90.71	0.51	11,096.90	-7,567.90	7,735.47	-351.14	7,742.90	0.40	0.02	-0.40
18,946.00	90.91	1.04	11,095.56	-7,566.56	7,830.45	-349.85	7,837.79	0.60	0.21	0.56
19,040.00	90.87	0.35	11,094.10	-7,565.10	7,924.44	-348.71	7,931.68	0.74	-0.04	-0.73
19,134.00	91.58	0.23	11,092.09	-7,563.09	8,018.41	-348.24	8,025.58	0.77	0.76	-0.13
19,228.00	91.25	359.70	11,089.76	-7,560.76	8,112.38	-348.29	8,119.50	0.66	-0.35	-0.56
19,322.00	90.99	359.96	11,087.93	-7,558.93	8,206.36	-348.57	8,213.44	0.39	-0.28	0.28
19,416.00	90.78	359.93	11,086.48	-7,557.48	8,300.35	-348.66	8,307.38	0.23	-0.22	-0.03
19,510.00	90.74	0.00	11,085.23	-7,556.23	8,394.34	-348.72	8,401.32	0.09	-0.04	0.07
19,604.00	91.05	359.98	11,083.76	-7,554.76	8,488.33	-348.74	8,495.26	0.33	0.33	-0.02

Survey Report



Company:	CENTENNIAL RESOURCE DEVELOPMENT	Local Co-ordinate Reference:	Well CHORIZO 12 STATE COM #601H
Project:	LEA COUNTY, NM (NAD 83 - UTM Zone 12N)	TVD Reference:	KB 25' @ 3529.00usft (H&P 650)
Site:	SW SW SEC. 12 T22S R34E	MD Reference:	KB 25' @ 3529.00usft (H&P 650)
Well:	CHORIZO 12 STATE COM #601H	North Reference:	True
Wellbore:	JOB # 2019-175-650	Survey Calculation Method:	Minimum Curvature
Design:	FINAL SURVEYS	Database:	Database 1

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	Subsea Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
19,699.00	90.87	359.85	11,082.17	-7,553.17	8,583.32	-348.88	8,590.19	0.23	-0.19	-0.14
19,793.00	90.66	359.99	11,080.91	-7,551.91	8,677.31	-349.01	8,684.14	0.27	-0.22	0.15
19,888.00	90.95	359.85	11,079.58	-7,550.58	8,772.30	-349.14	8,779.08	0.34	0.31	-0.15
19,982.00	90.83	359.89	11,078.12	-7,549.12	8,866.29	-349.35	8,873.02	0.13	-0.13	0.04
20,077.00	90.73	0.26	11,076.83	-7,547.83	8,961.28	-349.23	8,967.95	0.40	-0.11	0.39
20,171.00	91.11	0.42	11,075.32	-7,546.32	9,055.27	-348.67	9,061.87	0.44	0.40	0.17
20,265.00	90.88	359.68	11,073.68	-7,544.68	9,149.25	-348.59	9,155.80	0.82	-0.24	-0.79
20,360.00	90.90	0.25	11,072.21	-7,543.21	9,244.24	-348.65	9,250.73	0.60	0.02	0.60
20,453.00	90.80	359.50	11,070.83	-7,541.83	9,337.23	-348.85	9,343.68	0.81	-0.11	-0.81
20,548.00	90.97	0.08	11,069.36	-7,540.36	9,432.22	-349.20	9,438.62	0.64	0.18	0.61
20,642.00	90.76	0.43	11,067.94	-7,538.94	9,526.20	-348.78	9,532.54	0.43	-0.22	0.37
20,737.00	90.78	0.75	11,066.67	-7,537.67	9,621.19	-347.80	9,627.44	0.34	0.02	0.34
20,832.00	90.87	359.91	11,065.30	-7,536.30	9,716.18	-347.26	9,722.36	0.89	0.09	-0.88
20,926.00	92.23	359.61	11,062.75	-7,533.75	9,810.14	-347.65	9,816.28	1.48	1.45	-0.32
21,021.00	91.08	359.14	11,060.01	-7,531.01	9,905.09	-348.68	9,911.22	1.31	-1.21	-0.49
21,116.00	91.01	359.60	11,058.28	-7,529.28	10,000.07	-349.73	10,006.18	0.49	-0.07	0.48
21,210.00	90.81	359.99	11,056.79	-7,527.79	10,094.06	-350.07	10,100.12	0.47	-0.21	0.41
21,304.00	90.53	0.33	11,055.69	-7,526.69	10,188.05	-349.80	10,194.05	0.47	-0.30	0.36
LAST SURVEY MAR 30, 2019										
21,383.00	90.87	359.92	11,054.72	-7,525.72	10,267.05	-349.63	10,273.00	0.67	0.43	-0.52
PROJECTION TO TD										
21,416.00	90.87	0.21	11,054.22	-7,525.22	10,300.04	-349.59	10,305.97	0.88	0.00	0.88

Survey Report



Company: CENTENNIAL RESOURCE DEVELOPMENT
Project: LEA COUNTY, NM (NAD 83 - UTM Zone 18N)
Site: SW SW SEC. 12 T22S R34E
Well: CHORIZO 12 STATE COM #601H
Wellbore: JOB # 2019-175-650
Design: FINAL SURVEYS

Local Co-ordinate Reference: Well CHORIZO 12 STATE COM #601H
TVD Reference: KB 25' @ 3529.00usft (H&P 650)
MD Reference: KB 25' @ 3529.00usft (H&P 650)
North Reference: True
Survey Calculation Method: Minimum Curvature
Database: Database 1

Targets

Target Name

- hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
EXIST VERT GETTY - survey misses target center by 2648.08usft at 19749.21usft MD (11081.46 TVD, 8633.53 N, -348.98 E) - Circle (radius 30.00)	0.00	0.00	13,357.00	8,665.80	1,004.97	11,773,205.18	2,125,761.21	32.423607	-103.426636
ABDN VERT SAN SIM - survey misses target center by 4833.91usft at 19427.13usft MD (11086.32 TVD, 8311.49 N, -348.67 E) - Circle (radius 30.00)	0.00	0.00	13,236.00	8,342.65	3,980.83	11,772,925.80	2,128,741.11	32.422718	-103.416992
ABDN VERT NM DU - survey misses target center by 2498.39usft at 14055.38usft MD (11174.23 TVD, 2941.40 N, -349.85 E) - Circle (radius 30.00)	0.00	0.00	13,285.00	2,976.84	986.31	11,767,517.31	2,125,826.10	32.407970	-103.426697
ABDN VERT STATE - survey misses target center by 6991.61usft at 3493.35usft MD (3489.68 TVD, -36.31 N, -85.27 E) - Circle (radius 30.00)	0.00	0.00	3,974.00	6,937.86	9.09	11,771,463.03	2,124,790.95	32.418858	-103.429863
HZ LP - CHORIZO 12 - survey misses target center by 23.90usft at 11488.43usft MD (11167.22 TVD, 376.23 N, -392.84 E) - Point	0.00	0.00	11,161.62	376.45	-369.61	11,764,897.62	2,124,508.69	32.400823	-103.431090
PP/FTP - CHORIZO 1 - survey misses target center by 284.98usft at 11038.27usft MD (10954.32 TVD, -12.62 N, -410.00 E) - Point	0.00	0.00	11,165.00	-200.41	-370.47	11,764,320.89	2,124,516.30	32.399238	-103.431093
ABDN VERT RIDDLE - survey misses target center by 4534.92usft at 20766.11usft MD (11066.26 TVD, 9650.30 N, -347.49 E) - Circle (radius 30.00)	0.00	0.00	13,377.00	9,661.10	3,554.55	11,774,237.68	2,128,295.57	32.426342	-103.418373
BHL - CHORIZO 12 S - survey misses target center by 21.17usft at 21354.86usft MD (11055.12 TVD, 10238.91 N, -349.63 E) - Point	0.00	0.00	11,075.50	10,239.15	-343.90	11,774,758.34	2,124,389.56	32.427931	-103.431007
ABDN VERT NEW MI - survey misses target center by 8073.14usft at 3187.53usft MD (3185.77 TVD, -18.68 N, -56.18 E) - Circle (radius 30.00)	0.00	0.00	3,905.00	6,938.13	3,976.32	11,771,521.55	2,128,757.23	32.418858	-103.417007

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
1,842.00	1,841.96	2.33	-6.37	LAST INVICTUS SURVEY
2,474.00	2,473.87	3.62	-16.28	START NUDGE
10,606.00	10,585.15	-218.58	-417.90	KOP
11,632.00	11,180.53	518.79	-386.17	HZ LANDING PT
21,383.00	11,054.72	10,267.05	-349.63	LAST SURVEY MAR 30, 2019
21,416.00	11,054.22	10,300.04	-349.59	PROJECTION TO TD

Checked By: _____ Approved By: _____ Date: _____



Total Directional
Services, LLC
USA Operations

Final MWD Survey Certification

Lea County, New Mexico

Client: Centennial Resource Development

Well Name: Chorizo 12 State Com #601-H

Total Job No: 2019-175-650

API No: 30-025-45353

Start Date: 3/12/2019

End Date: 3/30/2019

Measured Start Depth: 0 feet

Measured End Depth: 21,416 feet

Vertical Section from well center at TD: 10,305.97 feet

I, Will Stanley, certify that; I am employed by Total Directional Services, LLC and we conducted or supervised the taking of these open hole MWD surveys at the request of this client. This data is true, correct, complete and within the limitations of the tool as set forth by Total Directional Services, LLC. I am authorized and qualified to make this report and have reviewed this report and find that it conforms to the principals and procedures as set forth by Total Directional Services, LLC.

Date: 3/29/2018

Signed: *Will Stanley*