



Intent ☐ As Drilled ☒API #  
30-025-46475

Operator Name:	Property Name:	Well Number
<b>DEVON ENERGY PRODUCTION CO., L.P.</b>	<b>CHINCOTEAGUE 8-32 FED STATE COM</b>	<b>522H</b>

## Kick Off Point (KOP)

UL <b>F</b>	Section <b>8</b>	Township <b>25S</b>	Range <b>32E</b>	Lot	Feet <b>2510</b>	From N/S <b>NORTH</b>	Feet <b>1665</b>	From E/W <b>WEST</b>	County <b>LEA</b>
Latitude <b>32.1452060</b>					Longitude <b>103.7004267</b>			NAD <b>83</b>	

## First Take Point (FTP)

UL <b>F</b>	Section <b>8</b>	Township <b>25S</b>	Range <b>32E</b>	Lot	Feet <b>2110</b>	From N/S <b>NORTH</b>	Feet <b>1674</b>	From E/W <b>WEST</b>	County <b>LEA</b>
Latitude <b>32.1463039</b>					Longitude <b>103.7003928</b>			NAD <b>83</b>	

## Last Take Point (LTP)

UL <b>C</b>	Section <b>32</b>	Township <b>24S</b>	Range <b>32E</b>	Lot	Feet <b>132</b>	From N/S <b>NORTH</b>	Feet <b>1674</b>	From E/W <b>WEST</b>	County <b>LEA</b>
Latitude <b>32.1807944</b>					Longitude <b>103.6998139</b>			NAD <b>83</b>	

Is this well the defining well for the Horizontal Spacing Unit?

☐ NO

Is this well an infill well?

☐ YES

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number



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I **Larry Wright**, certify that I am employed by **Wellbenders Directional Services**. That I did on the day(s) of **01/01/20** thru **01/16/20** conduct or supervise the taking of a **MWD Survey** from a depth of **166'** to a depth of **21794'**; that the data is true, correct, complete and within the limitations of the tool as set forth by **Wellbenders Directional Services**; that I am authorized and qualified to make this report; that this survey was conducted at the request of **Devon Energy** for the **Chincoteague 8-32 Fed State Com 522H** API No. **30-025-46475** in **Lea County, New Mexico**; and that I have reviewed this report and find that it conforms to the principles and procedures as set forth by **Wellbenders Directional Services**.

Larry Wright



## **Devon Energy**

**Lea Co., NM (Nad83 - East Zone)  
Chincoteague 8-32 Fed State Com  
#522H**

**OH**

**Design: OH**

## **Standard Survey Report**

**16 January, 2020**



## Wellbenders Survey Report

<b>Company:</b>	Devon Energy	<b>Local Co-ordinate Reference:</b>	Well #522H
<b>Project:</b>	Lea Co., NM (Nad83 - East Zone)	<b>TVD Reference:</b>	RKB=30' @ 3469.20usft (Cactus 108)
<b>Site:</b>	Chincoteague 8-32 Fed State Com	<b>MD Reference:</b>	RKB=30' @ 3469.20usft (Cactus 108)
<b>Well:</b>	#522H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	WBDS_SQL_2

<b>Project</b>	Lea Co., NM (Nad83 - East Zone)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

<b>Site</b>	Chincoteague 8-32 Fed State Com				
<b>Site Position:</b>		<b>Northing:</b>	417,325.99 usft	<b>Latitude:</b>	32.145730
<b>From:</b>	Map	<b>Easting:</b>	736,932.50 usft	<b>Longitude:</b>	-103.701362
<b>Position Uncertainty:</b>	0.00 usft	<b>Slot Radius:</b>	13.200 in	<b>Grid Convergence:</b>	0.336 °

<b>Well</b>	#522H				
<b>Well Position</b>	<b>+N/-S</b>	0.00 usft	<b>Northing:</b>	417,325.99 usft	<b>Latitude:</b> 32.145730
	<b>+E/-W</b>	0.00 usft	<b>Easting:</b>	736,932.50 usft	<b>Longitude:</b> -103.701362
<b>Position Uncertainty</b>		0.00 usft	<b>Wellhead Elevation:</b>	usft	<b>Ground Level:</b> 3,439.20 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2015	1/2/2020	6.732	59.937	47,616.59946563

<b>Design</b>	OH				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>	
	0.00	0.00	0.00	0.45	

<b>Survey Program</b>	<b>Date</b>	1/16/2020			
<b>From (usft)</b>	<b>To (usft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
166.00	21,794.00	Survey #1 (OH)	MWD+IGRF	OWSG MWD + IGRF or WMM	

<b>Survey</b>										
<b>Measured Depth (usft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Vertical Section (usft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
166.00	0.40	303.47	166.00	0.32	-0.48	0.32	0.24	0.24	0.00	
269.00	0.31	234.30	269.00	0.36	-1.01	0.35	0.40	-0.09	-67.16	
361.00	0.31	179.54	361.00	-0.04	-1.21	-0.05	0.31	0.00	-59.52	
453.00	0.35	187.01	452.99	-0.57	-1.24	-0.58	0.06	0.04	8.12	
545.00	0.75	176.29	544.99	-1.45	-1.24	-1.46	0.45	0.43	-11.65	
637.00	0.70	183.94	636.98	-2.61	-1.24	-2.62	0.12	-0.05	8.32	
710.00	0.79	190.26	709.98	-3.55	-1.36	-3.56	0.17	0.12	8.66	
819.00	0.62	181.03	818.97	-4.88	-1.50	-4.89	0.19	-0.16	-8.47	
912.00	0.57	192.72	911.96	-5.83	-1.61	-5.84	0.14	-0.05	12.57	



## Wellbenders Survey Report

<b>Company:</b>	Devon Energy	<b>Local Co-ordinate Reference:</b>	Well #522H
<b>Project:</b>	Lea Co., NM (Nad83 - East Zone)	<b>TVD Reference:</b>	RKB=30' @ 3469.20usft (Cactus 108)
<b>Site:</b>	Chincoteague 8-32 Fed State Com	<b>MD Reference:</b>	RKB=30' @ 3469.20usft (Cactus 108)
<b>Well:</b>	#522H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	WBDS_SQL_2

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
1,004.00	0.88	149.66	1,003.96	-6.89	-1.36	-6.90	0.66	0.34	-46.80	
1,097.00	2.11	123.99	1,096.92	-8.46	0.42	-8.46	1.47	1.32	-27.60	
1,188.00	2.24	123.47	1,187.86	-10.38	3.30	-10.35	0.14	0.14	-0.57	
1,280.00	3.03	116.61	1,279.76	-12.46	6.97	-12.40	0.92	0.86	-7.46	
1,371.00	4.62	117.58	1,370.55	-15.23	12.37	-15.14	1.75	1.75	1.07	
1,463.00	4.35	120.74	1,462.27	-18.73	18.65	-18.59	0.40	-0.29	3.43	
1,555.00	4.92	120.21	1,553.97	-22.50	25.06	-22.30	0.62	0.62	-0.58	
1,649.00	5.93	118.81	1,647.55	-26.87	32.80	-26.61	1.08	1.07	-1.49	
1,744.00	6.68	115.73	1,741.97	-31.63	42.08	-31.30	0.87	0.79	-3.24	
1,839.00	6.99	114.15	1,836.30	-36.40	52.33	-35.98	0.38	0.33	-1.66	
1,933.00	6.90	114.41	1,929.61	-41.07	62.69	-40.58	0.10	-0.10	0.28	
2,027.00	7.03	115.47	2,022.92	-45.88	73.02	-45.30	0.19	0.14	1.13	
2,122.00	6.90	114.15	2,117.22	-50.71	83.48	-50.05	0.22	-0.14	-1.39	
2,216.00	6.73	113.97	2,210.55	-55.26	93.67	-54.52	0.18	-0.18	-0.19	
2,311.00	6.51	117.75	2,304.92	-60.03	103.52	-59.21	0.51	-0.23	3.98	
2,406.00	6.11	116.00	2,399.34	-64.75	112.83	-63.86	0.47	-0.42	-1.84	
2,500.00	6.20	114.41	2,492.80	-69.04	121.95	-68.08	0.21	0.10	-1.69	
2,595.00	6.07	111.51	2,587.26	-73.00	131.29	-71.97	0.35	-0.14	-3.05	
2,690.00	6.37	117.67	2,681.70	-77.29	140.63	-76.19	0.77	0.32	6.48	
2,784.00	6.55	120.21	2,775.10	-82.41	149.88	-81.23	0.36	0.19	2.70	
2,879.00	6.11	117.67	2,869.52	-87.49	159.04	-86.24	0.55	-0.46	-2.67	
2,973.00	5.67	119.86	2,963.03	-92.12	167.50	-90.80	0.53	-0.47	2.33	
3,068.00	5.98	116.79	3,057.54	-96.69	175.99	-95.30	0.46	0.33	-3.23	
3,163.00	6.11	118.19	3,152.01	-101.31	184.86	-99.85	0.21	0.14	1.47	
3,258.00	6.33	116.96	3,246.45	-106.07	193.99	-104.54	0.27	0.23	-1.29	
3,352.00	6.59	116.79	3,339.85	-110.85	203.42	-109.25	0.28	0.28	-0.18	
3,447.00	5.36	117.40	3,434.33	-115.35	212.23	-113.68	1.30	-1.29	0.64	
3,542.00	4.92	119.34	3,528.95	-119.39	219.72	-117.66	0.50	-0.46	2.04	
3,636.00	4.22	123.82	3,622.65	-123.29	226.10	-121.51	0.84	-0.74	4.77	
3,731.00	3.30	125.22	3,717.45	-126.81	231.24	-124.99	0.97	-0.97	1.47	
3,825.00	4.31	121.36	3,811.24	-130.21	236.47	-128.35	1.11	1.07	-4.11	
3,920.00	6.20	118.81	3,905.83	-134.54	244.01	-132.62	2.00	1.99	-2.68	
4,014.00	5.54	110.63	3,999.34	-138.59	252.71	-136.60	1.13	-0.70	-8.70	
4,109.00	5.32	116.79	4,093.92	-142.19	260.93	-140.13	0.66	-0.23	6.48	
4,203.00	5.63	120.48	4,187.49	-146.49	268.79	-144.37	0.50	0.33	3.93	
4,297.00	5.89	128.48	4,281.02	-151.83	276.54	-149.65	0.90	0.28	8.51	
4,392.00	4.53	133.49	4,375.62	-157.44	283.08	-155.22	1.51	-1.43	5.27	
4,486.00	3.12	139.73	4,469.41	-161.95	287.43	-159.69	1.56	-1.50	6.64	
4,581.00	2.42	130.59	4,564.30	-165.23	290.62	-162.94	0.87	-0.74	-9.62	
4,625.00	2.51	127.60	4,608.26	-166.42	292.09	-164.12	0.36	0.20	-6.80	
4,734.00	2.07	121.97	4,717.17	-168.92	295.65	-166.59	0.45	-0.40	-5.17	
4,828.00	2.02	129.27	4,811.11	-170.87	298.37	-168.52	0.28	-0.05	7.77	
4,922.00	1.85	129.62	4,905.06	-172.88	300.82	-170.52	0.18	-0.18	0.37	
5,016.00	1.63	125.66	4,999.01	-174.63	303.08	-172.24	0.27	-0.23	-4.21	



## Wellbenders Survey Report

<b>Company:</b>	Devon Energy	<b>Local Co-ordinate Reference:</b>	Well #522H
<b>Project:</b>	Lea Co., NM (Nad83 - East Zone)	<b>TVD Reference:</b>	RKB=30' @ 3469.20usft (Cactus 108)
<b>Site:</b>	Chincoteague 8-32 Fed State Com	<b>MD Reference:</b>	RKB=30' @ 3469.20usft (Cactus 108)
<b>Well:</b>	#522H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	WBDS_SQL_2

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
5,109.00	1.71	127.77	5,091.98	-176.25	305.25	-173.85	0.11	0.09	2.27	
5,204.00	0.88	87.17	5,186.95	-177.08	307.10	-174.67	1.25	-0.87	-42.74	
5,298.00	1.01	61.50	5,280.94	-176.65	308.55	-174.22	0.47	0.14	-27.31	
5,393.00	0.88	64.14	5,375.93	-175.93	309.94	-173.50	0.14	-0.14	2.78	
5,487.00	0.84	48.06	5,469.92	-175.16	311.10	-172.71	0.26	-0.04	-17.11	
5,582.00	0.92	26.08	5,564.90	-174.01	311.96	-171.55	0.36	0.08	-23.14	
5,673.00	0.70	45.07	5,655.90	-172.96	312.67	-170.50	0.38	-0.24	20.87	
5,769.00	0.48	30.48	5,751.89	-172.20	313.29	-169.73	0.28	-0.23	-15.20	
5,863.00	0.92	15.01	5,845.88	-171.13	313.69	-168.66	0.51	0.47	-16.46	
5,958.00	0.75	41.38	5,940.87	-169.93	314.29	-167.45	0.44	-0.18	27.76	
6,053.00	0.92	41.38	6,035.86	-168.89	315.21	-166.41	0.18	0.18	0.00	
6,148.00	1.10	12.64	6,130.85	-167.43	315.91	-164.94	0.56	0.19	-30.25	
6,243.00	0.92	13.87	6,225.83	-165.80	316.30	-163.31	0.19	-0.19	1.29	
6,338.00	0.84	351.81	6,320.82	-164.37	316.38	-161.88	0.36	-0.08	-23.22	
6,432.00	0.97	234.30	6,414.82	-164.15	315.64	-161.67	1.65	0.14	-125.01	
6,527.00	0.70	248.27	6,509.81	-164.83	314.44	-162.36	0.35	-0.28	14.71	
6,622.00	1.05	226.83	6,604.80	-165.64	313.27	-163.18	0.50	0.37	-22.57	
6,716.00	0.75	233.24	6,698.79	-166.60	312.15	-164.14	0.34	-0.32	6.82	
6,811.00	0.75	222.78	6,793.78	-167.43	311.23	-164.98	0.14	0.00	-11.01	
6,905.00	1.23	220.50	6,887.76	-168.65	310.15	-166.21	0.51	0.51	-2.43	
7,000.00	0.88	220.15	6,982.75	-169.98	309.02	-167.55	0.37	-0.37	-0.37	
7,095.00	1.27	195.89	7,077.73	-171.55	308.26	-169.13	0.62	0.41	-25.54	
7,189.00	1.19	197.03	7,171.71	-173.49	307.69	-171.07	0.09	-0.09	1.21	
7,283.00	1.23	214.17	7,265.69	-175.25	306.84	-172.84	0.39	0.04	18.23	
7,377.00	1.41	202.83	7,359.66	-177.16	305.82	-174.75	0.34	0.19	-12.06	
7,470.00	1.71	209.51	7,452.63	-179.42	304.70	-177.02	0.38	0.32	7.18	
7,564.00	1.85	224.19	7,546.58	-181.73	302.95	-179.34	0.51	0.15	15.62	
7,659.00	2.02	207.93	7,641.53	-184.31	301.10	-181.93	0.60	0.18	-17.12	
7,753.00	1.23	217.07	7,735.49	-186.57	299.71	-184.21	0.88	-0.84	9.72	
7,847.00	1.36	235.09	7,829.47	-188.02	298.19	-185.67	0.45	0.14	19.17	
7,941.00	1.05	243.44	7,923.45	-189.04	296.50	-186.71	0.38	-0.33	8.88	
8,034.00	1.36	223.75	8,016.43	-190.22	294.98	-187.90	0.55	0.33	-21.17	
8,128.00	0.40	305.75	8,110.42	-190.83	293.94	-188.52	1.45	-1.02	87.23	
8,222.00	0.88	303.47	8,204.41	-190.24	293.07	-187.94	0.51	0.51	-2.43	
8,315.00	0.62	311.29	8,297.40	-189.52	292.10	-187.22	0.30	-0.28	8.41	
8,409.00	0.70	241.15	8,391.40	-189.46	291.21	-187.17	0.81	0.09	-74.62	
8,450.00	0.62	247.48	8,432.40	-189.66	290.79	-187.38	0.26	-0.20	15.44	
8,545.00	2.02	353.04	8,527.38	-188.20	290.11	-185.92	2.39	1.47	111.12	
8,639.00	14.33	355.32	8,620.24	-174.91	288.96	-172.63	13.10	13.10	2.43	
8,734.00	25.85	359.45	8,709.32	-142.37	287.79	-140.11	12.21	12.13	4.35	
8,829.00	35.87	1.03	8,790.76	-93.71	288.10	-91.44	10.58	10.55	1.66	
8,923.00	47.12	1.74	8,861.06	-31.55	289.64	-29.27	11.98	11.97	0.76	
9,018.00	56.48	1.74	8,919.74	42.99	291.91	45.28	9.85	9.85	0.00	



## Wellbenders Survey Report

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<b>Site:</b>	Chincoteague 8-32 Fed State Com	<b>MD Reference:</b>	RKB=30' @ 3469.20usft (Cactus 108)
<b>Well:</b>	#522H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	WBDS_SQL_2

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
9,114.00	63.21	2.62	8,967.94	125.89	295.08	128.20	7.05	7.01	0.92	
9,206.00	71.38	2.18	9,003.42	210.61	298.63	212.95	8.89	8.88	-0.48	
9,301.00	80.48	2.00	9,026.49	302.61	301.98	304.97	9.58	9.58	-0.19	
9,396.00	88.22	359.36	9,035.84	397.06	303.09	399.42	8.60	8.15	-2.78	
9,491.00	89.58	359.98	9,037.66	492.04	302.54	494.40	1.57	1.43	0.65	
9,586.00	89.76	359.89	9,038.21	587.03	302.43	589.39	0.21	0.19	-0.09	
9,680.00	91.78	359.45	9,036.95	681.02	301.89	683.37	2.20	2.15	-0.47	
9,774.00	92.40	358.40	9,033.52	774.94	300.13	777.27	1.30	0.66	-1.12	
9,869.00	90.81	358.93	9,030.86	869.87	297.92	872.18	1.76	-1.67	0.56	
9,963.00	90.73	357.34	9,029.59	963.81	294.86	966.10	1.69	-0.09	-1.69	
10,058.00	91.25	358.13	9,027.95	1,058.72	291.10	1,060.97	1.00	0.55	0.83	
10,153.00	91.47	359.98	9,025.70	1,153.68	289.54	1,155.91	1.96	0.23	1.95	
10,247.00	92.22	359.72	9,022.67	1,247.63	289.29	1,249.86	0.84	0.80	-0.28	
10,342.00	93.54	359.01	9,017.90	1,342.50	288.24	1,344.72	1.58	1.39	-0.75	
10,436.00	92.40	359.10	9,013.03	1,436.36	286.69	1,438.56	1.22	-1.21	0.10	
10,530.00	93.01	0.51	9,008.59	1,530.25	286.37	1,532.45	1.63	0.65	1.50	
10,625.00	93.63	359.98	9,003.09	1,625.09	286.78	1,627.29	0.86	0.65	-0.56	
10,720.00	91.91	0.68	8,998.50	1,719.97	287.32	1,722.18	1.95	-1.81	0.74	
10,815.00	90.73	1.91	8,996.31	1,814.92	289.47	1,817.14	1.79	-1.24	1.29	
10,910.00	88.53	2.00	8,996.92	1,909.86	292.71	1,912.10	2.32	-2.32	0.09	
11,005.00	88.79	1.65	8,999.14	2,004.78	295.74	2,007.04	0.46	0.27	-0.37	
11,099.00	89.19	1.12	9,000.80	2,098.74	298.01	2,101.01	0.71	0.43	-0.56	
11,194.00	89.93	1.30	9,001.53	2,193.71	300.01	2,196.00	0.80	0.78	0.19	
11,288.00	91.21	1.21	9,000.60	2,287.68	302.07	2,289.99	1.37	1.36	-0.10	
11,383.00	89.89	1.39	8,999.68	2,382.65	304.23	2,384.97	1.40	-1.39	0.19	
11,477.00	90.11	2.00	8,999.68	2,476.61	307.01	2,478.95	0.69	0.23	0.65	
11,571.00	90.77	1.74	8,998.96	2,570.56	310.08	2,572.91	0.75	0.70	-0.28	
11,666.00	91.52	1.30	8,997.06	2,665.51	312.60	2,667.88	0.92	0.79	-0.46	
11,761.00	91.47	0.60	8,994.59	2,760.46	314.17	2,762.84	0.74	-0.05	-0.74	
11,855.00	90.51	1.47	8,992.96	2,854.43	315.87	2,856.82	1.38	-1.02	0.93	
11,950.00	90.81	1.21	8,991.87	2,949.40	318.09	2,951.80	0.42	0.32	-0.27	
12,044.00	89.58	2.27	8,991.55	3,043.35	320.94	3,045.78	1.73	-1.31	1.13	
12,139.00	90.15	2.18	8,991.77	3,138.28	324.63	3,140.73	0.61	0.60	-0.09	
12,233.00	90.90	1.03	8,990.91	3,232.23	327.26	3,234.70	1.46	0.80	-1.22	
12,328.00	89.58	0.95	8,990.51	3,327.22	328.91	3,329.70	1.39	-1.39	-0.08	
12,423.00	89.89	0.86	8,990.95	3,422.20	330.41	3,424.69	0.34	0.33	-0.09	
12,517.00	90.37	1.03	8,990.74	3,516.19	331.96	3,518.69	0.54	0.51	0.18	
12,611.00	91.52	2.44	8,989.19	3,610.13	334.80	3,612.65	1.94	1.22	1.50	
12,706.00	89.19	1.56	8,988.60	3,705.06	338.12	3,707.60	2.62	-2.45	-0.93	
12,801.00	89.27	0.68	8,989.88	3,800.03	339.97	3,802.59	0.93	0.08	-0.93	
12,895.00	90.55	0.68	8,990.02	3,894.03	341.09	3,896.59	1.36	1.36	0.00	
12,990.00	89.67	1.12	8,989.84	3,989.01	342.58	3,991.58	1.04	-0.93	0.46	
13,084.00	90.95	2.44	8,989.33	4,082.96	345.50	4,085.55	1.96	1.36	1.40	





## Wellbenders Survey Report

<b>Company:</b>	Devon Energy	<b>Local Co-ordinate Reference:</b>	Well #522H
<b>Project:</b>	Lea Co., NM (Nad83 - East Zone)	<b>TVD Reference:</b>	RKB=30' @ 3469.20usft (Cactus 108)
<b>Site:</b>	Chincoteague 8-32 Fed State Com	<b>MD Reference:</b>	RKB=30' @ 3469.20usft (Cactus 108)
<b>Well:</b>	#522H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	WBDS_SQL_2

Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
13,179.00	90.07	2.70	8,988.49	4,177.86	349.76	4,180.48	0.97	-0.93	0.27	
13,273.00	88.84	2.62	8,989.38	4,271.75	354.12	4,274.40	1.31	-1.31	-0.09	
13,367.00	88.53	2.09	8,991.54	4,365.65	357.98	4,368.33	0.65	-0.33	-0.56	
13,462.00	89.45	0.95	8,993.21	4,460.60	360.50	4,463.29	1.54	0.97	-1.20	
13,556.00	88.22	1.56	8,995.12	4,554.56	362.56	4,557.26	1.46	-1.31	0.65	
13,651.00	88.04	1.39	8,998.22	4,649.47	365.01	4,652.20	0.26	-0.19	-0.18	
13,746.00	88.22	1.03	9,001.32	4,744.40	367.01	4,747.14	0.42	0.19	-0.38	
13,840.00	88.75	0.42	9,003.81	4,838.36	368.20	4,841.10	0.86	0.56	-0.65	
13,935.00	89.23	359.89	9,005.48	4,933.34	368.46	4,936.09	0.75	0.51	-0.56	
14,029.00	89.71	359.54	9,006.35	5,027.34	367.99	5,030.07	0.63	0.51	-0.37	
14,124.00	90.24	358.84	9,006.39	5,122.33	366.65	5,125.05	0.92	0.56	-0.74	
14,219.00	90.15	357.61	9,006.07	5,217.28	363.70	5,219.98	1.30	-0.09	-1.29	
14,314.00	90.73	357.43	9,005.34	5,312.19	359.59	5,314.85	0.64	0.61	-0.19	
14,408.00	91.52	356.99	9,003.50	5,406.06	355.02	5,408.68	0.96	0.84	-0.47	
14,503.00	90.59	357.17	9,001.75	5,500.92	350.18	5,503.50	1.00	-0.98	0.19	
14,597.00	91.03	357.43	9,000.42	5,594.80	345.75	5,597.35	0.54	0.47	0.28	
14,693.00	88.57	358.49	9,000.75	5,690.73	342.33	5,693.25	2.79	-2.56	1.10	
14,787.00	88.35	359.01	9,003.28	5,784.68	340.29	5,787.17	0.60	-0.23	0.55	
14,882.00	88.35	358.84	9,006.01	5,879.62	338.50	5,882.10	0.18	0.00	-0.18	
14,977.00	88.70	358.22	9,008.46	5,974.56	336.07	5,977.01	0.75	0.37	-0.65	
15,072.00	88.92	357.61	9,010.43	6,069.47	332.61	6,071.90	0.68	0.23	-0.64	
15,167.00	89.45	359.80	9,011.78	6,164.43	330.47	6,166.84	2.37	0.56	2.31	
15,261.00	89.93	359.89	9,012.29	6,258.43	330.21	6,260.83	0.52	0.51	0.10	
15,356.00	90.51	359.36	9,011.93	6,353.43	329.59	6,355.82	0.83	0.61	-0.56	
15,450.00	88.79	1.65	9,012.50	6,447.41	330.42	6,449.81	3.05	-1.83	2.44	
15,545.00	89.14	2.18	9,014.22	6,542.34	333.59	6,544.76	0.67	0.37	0.56	
15,640.00	89.49	1.74	9,015.35	6,637.28	336.84	6,639.72	0.59	0.37	-0.46	
15,735.00	89.80	1.21	9,015.94	6,732.25	339.29	6,734.70	0.65	0.33	-0.56	
15,830.00	90.33	1.39	9,015.83	6,827.22	341.44	6,829.69	0.59	0.56	0.19	
15,924.00	88.22	1.12	9,017.02	6,921.19	343.50	6,923.67	2.26	-2.24	-0.29	
16,019.00	88.09	0.77	9,020.08	7,016.12	345.07	7,018.62	0.39	-0.14	-0.37	
16,114.00	87.96	0.24	9,023.36	7,111.06	345.90	7,113.56	0.57	-0.14	-0.56	
16,209.00	88.75	0.95	9,026.08	7,206.02	346.89	7,208.52	1.12	0.83	0.75	
16,304.00	88.31	0.68	9,028.52	7,300.98	348.24	7,303.49	0.54	-0.46	-0.28	
16,398.00	89.23	2.09	9,030.54	7,394.92	350.51	7,397.45	1.79	0.98	1.50	
16,493.00	89.67	2.18	9,031.45	7,489.85	354.05	7,492.40	0.47	0.46	0.09	
16,587.00	90.86	2.18	9,031.02	7,583.78	357.63	7,586.36	1.27	1.27	0.00	
16,682.00	92.66	2.18	9,028.10	7,678.67	361.24	7,681.27	1.89	1.89	0.00	
16,777.00	91.65	0.16	9,024.53	7,773.57	363.18	7,776.18	2.38	-1.06	-2.13	
16,871.00	91.12	359.63	9,022.25	7,867.54	363.00	7,870.15	0.80	-0.56	-0.56	
16,966.00	90.20	0.33	9,021.16	7,962.54	362.97	7,965.14	1.22	-0.97	0.74	
17,061.00	90.55	359.80	9,020.54	8,057.53	363.08	8,060.14	0.67	0.37	-0.56	
17,156.00	88.84	357.61	9,021.04	8,152.50	360.93	8,155.08	2.92	-1.80	-2.31	
17,250.00	86.68	357.87	9,024.72	8,246.35	357.23	8,248.90	2.31	-2.30	0.28	



## Wellbenders Survey Report

<b>Company:</b>	Devon Energy	<b>Local Co-ordinate Reference:</b>	Well #522H
<b>Project:</b>	Lea Co., NM (Nad83 - East Zone)	<b>TVD Reference:</b>	RKB=30' @ 3469.20usft (Cactus 108)
<b>Site:</b>	Chincoteague 8-32 Fed State Com	<b>MD Reference:</b>	RKB=30' @ 3469.20usft (Cactus 108)
<b>Well:</b>	#522H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	WBDS_SQL_2

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
17,345.00	89.63	358.66	9,027.78	8,341.24	354.35	8,343.77	3.21	3.11	0.83
17,440.00	90.20	358.57	9,027.92	8,436.22	352.06	8,438.72	0.61	0.60	-0.09
17,535.00	89.67	357.96	9,028.02	8,531.17	349.18	8,533.65	0.85	-0.56	-0.64
17,630.00	89.71	357.87	9,028.54	8,626.11	345.72	8,628.56	0.10	0.04	-0.09
17,724.00	90.95	356.82	9,028.00	8,720.00	341.37	8,722.41	1.73	1.32	-1.12
17,846.00	90.90	357.17	9,026.03	8,841.82	334.98	8,844.18	0.29	-0.04	0.29
17,941.00	91.30	359.19	9,024.20	8,936.75	331.96	8,939.08	2.17	0.42	2.13
18,035.00	92.22	1.74	9,021.32	9,030.69	332.72	9,033.03	2.88	0.98	2.71
18,130.00	92.62	1.74	9,017.30	9,125.56	335.60	9,127.92	0.42	0.42	0.00
18,225.00	91.52	2.97	9,013.87	9,220.42	339.50	9,222.80	1.74	-1.16	1.29
18,319.00	91.74	2.88	9,011.20	9,314.26	344.30	9,316.67	0.25	0.23	-0.10
18,414.00	90.33	3.32	9,009.48	9,409.10	349.44	9,411.55	1.55	-1.48	0.46
18,508.00	90.15	3.76	9,009.09	9,502.92	355.24	9,505.42	0.51	-0.19	0.47
18,603.00	90.37	3.32	9,008.66	9,597.74	361.11	9,600.28	0.52	0.23	-0.46
18,697.00	88.92	2.88	9,009.24	9,691.59	366.19	9,694.17	1.61	-1.54	-0.47
18,791.00	88.40	2.44	9,011.44	9,785.47	370.55	9,788.07	0.72	-0.55	-0.47
18,886.00	88.04	1.91	9,014.39	9,880.35	374.15	9,882.99	0.67	-0.38	-0.56
18,981.00	87.82	1.91	9,017.82	9,975.24	377.32	9,977.89	0.23	-0.23	0.00
19,075.00	88.26	2.00	9,021.04	10,069.13	380.52	10,071.81	0.48	0.47	0.10
19,169.00	88.66	1.91	9,023.56	10,163.04	383.73	10,165.74	0.44	0.43	-0.10
19,264.00	88.92	1.21	9,025.57	10,257.98	386.31	10,260.70	0.79	0.27	-0.74
19,359.00	89.80	359.54	9,026.63	10,352.97	386.94	10,355.69	1.99	0.93	-1.76
19,453.00	90.64	358.67	9,026.27	10,446.96	385.47	10,449.66	1.29	0.89	-0.93
19,547.00	90.81	358.66	9,025.08	10,540.92	383.28	10,543.61	0.18	0.18	-0.01
19,642.00	91.60	359.01	9,023.08	10,635.88	381.35	10,638.55	0.91	0.83	0.37
19,736.00	92.57	359.10	9,019.66	10,729.80	379.80	10,732.46	1.04	1.03	0.10
19,831.00	93.23	358.93	9,014.86	10,824.67	378.17	10,827.30	0.72	0.69	-0.18
19,926.00	92.09	0.60	9,010.45	10,919.56	377.78	10,922.19	2.13	-1.20	1.76
20,020.00	92.40	0.77	9,006.76	11,013.48	378.90	11,016.12	0.38	0.33	0.18
20,114.00	92.66	1.12	9,002.62	11,107.38	380.45	11,110.02	0.46	0.28	0.37
20,209.00	90.81	1.39	8,999.74	11,202.31	382.53	11,204.96	1.97	-1.95	0.28
20,304.00	90.95	1.47	8,998.28	11,297.26	384.90	11,299.94	0.17	0.15	0.08
20,398.00	91.12	1.56	8,996.58	11,391.22	387.38	11,393.91	0.20	0.18	0.10
20,493.00	91.60	1.65	8,994.33	11,486.15	390.04	11,488.86	0.51	0.51	0.09
20,587.00	90.55	1.39	8,992.56	11,580.10	392.54	11,582.83	1.15	-1.12	-0.28
20,682.00	90.24	1.12	8,991.91	11,675.08	394.62	11,677.82	0.43	-0.33	-0.28
20,777.00	89.41	1.03	8,992.20	11,770.06	396.40	11,772.81	0.88	-0.87	-0.09
20,871.00	89.23	0.68	8,993.31	11,864.04	397.80	11,866.80	0.42	-0.19	-0.37
20,966.00	89.23	0.51	8,994.59	11,959.03	398.79	11,961.79	0.18	0.00	-0.18
21,060.00	89.14	0.33	8,995.93	12,053.02	399.48	12,055.78	0.21	-0.10	-0.19
21,155.00	89.98	0.68	8,996.66	12,148.01	400.32	12,150.78	0.96	0.88	0.37
21,249.00	89.19	1.12	8,997.34	12,241.99	401.79	12,244.77	0.96	-0.84	0.47
21,344.00	89.14	0.68	8,998.72	12,336.97	403.28	12,339.76	0.47	-0.05	-0.46



<b>Company:</b>	Devon Energy	<b>Local Co-ordinate Reference:</b>	Well #522H
<b>Project:</b>	Lea Co., NM (Nad83 - East Zone)	<b>TVD Reference:</b>	RKB=30' @ 3469.20usft (Cactus 108)
<b>Site:</b>	Chincoteague 8-32 Fed State Com	<b>MD Reference:</b>	RKB=30' @ 3469.20usft (Cactus 108)
<b>Well:</b>	#522H	<b>North Reference:</b>	Grid
<b>Wellbore:</b>	OH	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	OH	<b>Database:</b>	WBDS_SQL_2

Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
21,438.00	89.71	0.77	8,999.67	12,430.96	404.47	12,433.75	0.61	0.61	0.10
21,530.00	87.47	0.07	9,001.93	12,522.92	405.15	12,525.72	2.55	-2.43	-0.76
21,622.00	86.86	359.63	9,006.48	12,614.81	404.91	12,617.60	0.82	-0.66	-0.48
21,734.00	86.73	359.63	9,012.74	12,726.63	404.19	12,729.41	0.12	-0.12	0.00
21,794.00	86.73	359.63	9,016.16	12,786.53	403.80	12,789.31	0.00	0.00	0.00

Checked By: _____	Approved By: _____	Date: _____
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