



30-025-44547

Matador Resources

Lea County, New Mexico (NAD 27)

Leslie Fed Com

Leslie Fed Com #217H

Wellbore #1

Design: Surveys

Standard Survey Report

27 August, 2018





MS Directional Survey Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Site: Leslie Fed Com
Well: Leslie Fed Com #217H
Wellbore: Wellbore #1
Design: Surveys

Local Co-ordinate Reference: Well Leslie Fed Com #217H
TVD Reference: WELL @ 3307.50usft (Patterson 282)
MD Reference: WELL @ 3307.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Conroe DB

Project Lea County, New Mexico (NAD 27)

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum: Mean Sea Level

Site Leslie Fed Com

Site Position: **Map** **Northings:** 0.00 usft **Latitude:** 30° 59' 24.512 N
From: **Easting:** 0.00 usft **Longitude:** 105° 55' 44.137 W
Position Uncertainty: 0.00 usft **Slot Radius:** 13-3/16 "

Well Leslie Fed Com #217H

Well Position **+N/-S** 0.00 usft **Northings:** 410,058.43 usft **Latitude:** 32° 7' 25.799 N
+E/-W 0.00 usft **Easting:** 792,848.60 usft **Longitude:** 103° 23' 14.602 W
Position Uncertainty 0.00 usft **Wellhead Elevation:** usft **Ground Level:** 3,279.00 usft
Grid Convergence: 0.503 °

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2018	8/15/2018	6.817	59.947	47,811.83

Design Surveys

Audit Notes:
Version: 1.0 **Phase:** ACTUAL **Tie On Depth:** 0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	359.49

Survey Program Date 8/27/2018

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
141.00	17,205.00	MS MWD (Wellbore #1)	MWD	OWSG MWD - Standard

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)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
141.00	0.60	10.50	141.00	0.73	0.13	0.72	0.43	0.43	0.00
322.00	1.20	299.80	321.98	2.60	-1.34	2.61	0.64	0.33	-39.06
474.00	1.20	302.10	473.95	4.24	-4.07	4.27	0.03	0.00	1.51
566.00	2.00	268.30	565.91	4.70	-6.49	4.76	1.31	0.87	-36.74
658.00	1.90	235.60	657.86	3.79	-9.35	3.87	1.20	-0.11	-35.54
748.00	2.10	221.70	747.81	1.72	-11.68	1.82	0.58	0.22	-15.44
839.00	2.50	198.90	838.73	-1.41	-13.43	-1.29	1.09	0.44	-25.05
931.00	3.30	183.50	930.62	-5.95	-14.24	-5.82	1.21	0.87	-16.74
1,031.00	3.40	180.80	1,030.45	-11.78	-14.46	-11.66	0.19	0.10	-2.70



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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)
1,219.00	5.30	181.30	1,217.90	-26.04	-14.73	-25.91	1.01	1.01	0.27
1,408.00	4.60	178.50	1,406.19	-42.34	-14.73	-42.21	0.39	-0.37	-1.48
1,596.00	4.70	177.30	1,593.57	-57.57	-14.17	-57.45	0.07	0.05	-0.64
1,784.00	4.20	178.70	1,781.00	-72.15	-13.66	-72.03	0.27	-0.27	0.74
1,973.00	5.70	175.40	1,969.29	-88.43	-12.75	-88.31	0.81	0.79	-1.75
2,161.00	5.60	175.00	2,156.38	-106.87	-11.20	-106.77	0.06	-0.05	-0.21
2,350.00	5.20	180.20	2,344.54	-124.62	-10.42	-124.52	0.33	-0.21	2.75
2,538.00	4.90	180.20	2,531.81	-141.17	-10.48	-141.07	0.16	-0.16	0.00
2,726.00	4.50	183.10	2,719.18	-156.56	-10.91	-156.46	0.25	-0.21	1.54
2,914.00	4.10	181.60	2,906.65	-170.65	-11.49	-170.54	0.22	-0.21	-0.80
3,105.00	4.70	177.40	3,097.09	-185.29	-11.33	-185.18	0.36	0.31	-2.20
3,293.00	4.70	183.20	3,284.46	-200.67	-11.41	-200.56	0.25	0.00	3.09
3,482.00	3.90	183.40	3,472.92	-214.82	-12.22	-214.70	0.42	-0.42	0.11
3,671.00	3.10	188.10	3,661.57	-226.30	-13.33	-226.17	0.45	-0.42	2.49
3,860.00	2.30	212.90	3,850.36	-234.54	-16.11	-234.39	0.74	-0.42	13.12
4,050.00	1.70	190.20	4,040.25	-240.52	-18.68	-240.34	0.52	-0.32	-11.95
4,238.00	1.30	178.20	4,228.19	-245.39	-19.10	-245.21	0.27	-0.21	-6.38
4,425.00	1.00	154.20	4,415.15	-248.98	-18.33	-248.81	0.30	-0.16	-12.83
4,614.00	1.10	125.70	4,604.12	-251.52	-16.13	-251.37	0.28	0.05	-15.08
4,802.00	1.30	111.40	4,792.08	-253.36	-12.68	-253.23	0.19	0.11	-7.61
4,991.00	1.80	121.30	4,981.01	-255.68	-8.15	-255.60	0.30	0.26	5.24
5,181.00	1.10	112.20	5,170.95	-257.92	-3.91	-257.87	0.39	-0.37	-4.79
5,370.00	0.90	112.40	5,359.92	-259.17	-0.86	-259.15	0.11	-0.11	0.11
5,478.00	0.80	114.70	5,467.91	-259.81	0.61	-259.80	0.10	-0.09	2.13
5,656.00	0.70	110.50	5,645.89	-260.71	2.76	-260.72	0.06	-0.06	-2.36
5,843.00	1.40	333.80	5,832.87	-259.06	2.82	-259.07	1.05	0.37	-73.10
6,031.00	1.40	339.50	6,020.82	-254.85	1.00	-254.85	0.07	0.00	3.03
6,220.00	1.40	335.10	6,209.76	-250.59	-0.78	-250.57	0.06	0.00	-2.33
6,410.00	1.50	334.00	6,399.70	-246.25	-2.85	-246.21	0.05	0.05	-0.58
6,600.00	1.50	345.80	6,589.64	-241.60	-4.55	-241.55	0.16	0.00	6.21
6,789.00	1.40	289.10	6,778.59	-238.45	-7.34	-238.38	0.73	-0.05	-30.00
6,978.00	1.40	241.70	6,967.54	-238.79	-11.55	-238.68	0.60	0.00	-25.08
7,167.00	1.10	236.60	7,156.49	-240.88	-15.10	-240.74	0.17	-0.16	-2.70
7,356.00	1.20	208.60	7,345.45	-243.62	-17.56	-243.45	0.30	0.05	-14.81
7,544.00	1.00	197.50	7,533.42	-246.91	-19.00	-246.73	0.15	-0.11	-5.90
7,733.00	1.20	202.20	7,722.38	-250.32	-20.24	-250.13	0.12	0.11	2.49
7,921.00	0.60	189.10	7,910.36	-253.11	-21.14	-252.91	0.34	-0.32	-6.97
8,110.00	0.90	185.00	8,099.34	-255.57	-21.43	-255.37	0.16	0.16	-2.17
8,298.00	0.80	174.00	8,287.32	-258.34	-21.42	-258.14	0.10	-0.05	-5.85
8,486.00	0.70	139.10	8,475.31	-260.52	-20.53	-260.32	0.24	-0.05	-18.56
8,675.00	0.90	75.80	8,664.29	-261.03	-18.33	-260.85	0.45	0.11	-33.49
8,864.00	0.90	79.10	8,853.27	-260.38	-15.44	-260.23	0.03	0.00	1.75
9,052.00	0.90	44.60	9,041.25	-259.05	-12.95	-258.92	0.28	0.00	-18.35



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Survey

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9,242.00	1.50	3.50	9,231.21	-255.51	-11.75	-255.39	0.53	0.32	-21.63
9,430.00	2.20	350.20	9,419.11	-249.49	-12.22	-249.37	0.43	0.37	-7.07
9,618.00	1.10	335.50	9,607.03	-244.30	-13.58	-244.16	0.62	-0.59	-7.82
9,807.00	1.40	314.50	9,795.99	-241.03	-15.98	-240.87	0.29	0.16	-11.11
9,995.00	1.40	191.90	9,983.96	-241.66	-18.09	-241.49	1.31	0.00	-65.21
10,184.00	1.70	229.10	10,172.89	-245.76	-20.68	-245.56	0.54	0.16	19.68
10,373.00	0.80	131.90	10,361.86	-248.48	-21.82	-248.27	1.04	-0.48	-51.43
10,562.00	0.80	88.80	10,550.84	-249.33	-19.52	-249.15	0.31	0.00	-22.80
10,752.00	0.80	20.70	10,740.83	-248.06	-17.73	-247.89	0.47	0.00	-35.84
10,940.00	0.60	357.40	10,928.82	-245.85	-17.31	-245.69	0.18	-0.11	-12.39
11,128.00	1.10	310.90	11,116.80	-243.68	-18.71	-243.51	0.43	0.27	-24.73
11,316.00	1.50	274.60	11,304.75	-242.31	-22.53	-242.10	0.48	0.21	-19.31
11,504.00	2.00	204.30	11,492.68	-245.10	-26.33	-244.85	1.09	0.27	-37.39
11,599.00	1.50	174.80	11,587.64	-247.85	-26.90	-247.60	1.07	-0.53	-31.05
11,694.00	1.70	173.70	11,682.60	-250.49	-26.64	-250.24	0.21	0.21	-1.16
11,782.00	1.80	175.60	11,770.56	-253.16	-26.39	-252.92	0.13	0.11	2.16
11,823.00	1.90	177.60	11,811.54	-254.48	-26.31	-254.24	0.29	0.24	4.88
11,917.00	3.90	0.20	11,905.49	-252.84	-26.23	-252.60	6.17	2.13	-188.72
11,964.00	11.00	2.40	11,952.06	-246.76	-26.04	-246.51	15.12	15.11	4.68
12,011.00	16.00	7.30	11,997.75	-235.84	-25.03	-235.61	10.90	10.64	10.43
12,058.00	20.30	7.50	12,042.40	-221.33	-23.14	-221.11	9.15	9.15	0.43
12,105.00	25.70	4.20	12,085.65	-203.07	-21.33	-202.87	11.81	11.49	-7.02
12,152.00	30.00	359.80	12,127.20	-181.14	-20.62	-180.95	10.13	9.15	-9.36
12,199.00	33.70	1.40	12,167.12	-156.35	-20.34	-156.16	8.07	7.87	3.40
12,246.00	37.60	3.90	12,205.30	-129.00	-19.05	-128.82	8.86	8.30	5.32
12,293.00	43.40	3.30	12,241.03	-98.54	-17.14	-98.39	12.37	12.34	-1.28
12,340.00	48.20	1.80	12,273.78	-64.89	-15.66	-64.75	10.47	10.21	-3.19
12,387.00	52.60	1.40	12,303.74	-28.70	-14.66	-28.57	9.38	9.36	-0.85
12,434.00	56.60	1.20	12,330.96	9.59	-13.79	9.71	8.52	8.51	-0.43
12,457.99	59.00	0.78	12,343.74	29.89	-13.44	30.00	10.11	10.00	-1.74
330' HL Intersection- 12457.99' MD									
12,481.00	61.30	0.40	12,355.19	49.84	-13.23	49.96	10.11	10.00	-1.66
12,528.00	64.40	0.20	12,376.64	91.66	-13.02	91.77	6.61	6.60	-0.43
12,575.00	67.90	0.90	12,395.64	134.63	-12.60	134.74	7.57	7.45	1.49
12,622.00	71.40	1.40	12,411.98	178.68	-11.71	178.78	7.51	7.45	1.06
12,655.00	75.00	1.80	12,421.52	210.26	-10.83	210.35	10.97	10.91	1.21
12,716.00	80.90	1.20	12,434.25	269.87	-9.27	269.94	9.72	9.67	-0.98
12,763.00	86.20	2.40	12,439.52	316.53	-7.80	316.59	11.56	11.28	2.55
12,857.00	89.40	359.60	12,443.13	410.42	-6.17	410.46	4.52	3.40	-2.98
12,952.00	89.20	359.60	12,444.29	505.41	-6.83	505.46	0.21	-0.21	0.00
13,046.00	93.10	359.40	12,442.41	599.37	-7.65	599.42	4.15	4.15	-0.21
13,140.00	91.30	359.00	12,438.80	693.29	-8.96	693.34	1.96	-1.91	-0.43
13,235.00	90.40	358.20	12,437.39	788.25	-11.28	788.32	1.27	-0.95	-0.84



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13,329.00	91.60	355.90	12,435.75	882.10	-16.12	882.21	2.76	1.28	-2.45
13,423.00	89.80	354.60	12,434.60	975.77	-23.90	975.94	2.36	-1.91	-1.38
13,517.00	93.90	356.80	12,431.57	1,069.43	-30.95	1,069.66	4.95	4.36	2.34
13,612.00	88.60	355.80	12,429.49	1,164.17	-37.07	1,164.46	5.68	-5.58	-1.05
13,706.00	89.60	355.50	12,430.97	1,257.89	-44.20	1,258.23	1.11	1.06	-0.32
13,800.00	86.70	355.10	12,434.00	1,351.51	-51.90	1,351.92	3.11	-3.09	-0.43
13,894.00	89.30	357.40	12,437.29	1,445.24	-58.04	1,445.70	3.69	2.77	2.45
13,989.00	91.30	358.70	12,436.79	1,540.18	-61.27	1,540.66	2.51	2.11	1.37
14,084.00	89.10	356.70	12,436.46	1,635.09	-65.09	1,635.61	3.13	-2.32	-2.11
14,178.00	90.60	357.10	12,436.70	1,728.95	-70.17	1,729.51	1.65	1.60	0.43
14,273.00	90.80	358.80	12,435.54	1,823.88	-73.57	1,824.46	1.80	0.21	1.79
14,367.00	87.90	357.60	12,436.61	1,917.81	-76.52	1,918.42	3.34	-3.09	-1.28
14,461.00	88.90	357.50	12,439.23	2,011.69	-80.54	2,012.33	1.07	1.06	-0.11
14,555.00	84.30	358.80	12,444.81	2,105.45	-83.57	2,106.11	5.08	-4.89	1.38
14,649.00	93.00	359.80	12,447.02	2,199.33	-84.71	2,199.99	9.32	9.26	1.06
14,743.00	92.70	357.50	12,442.34	2,293.18	-86.92	2,293.86	2.46	-0.32	-2.45
14,838.00	98.50	2.70	12,433.07	2,387.65	-86.78	2,388.33	8.18	6.11	5.47
14,932.00	97.00	1.90	12,420.40	2,480.71	-83.04	2,481.35	1.80	-1.60	-0.85
15,027.00	96.60	2.70	12,409.15	2,574.97	-79.26	2,575.57	0.94	-0.42	0.84
15,121.00	95.40	4.90	12,399.32	2,668.24	-73.06	2,668.78	2.65	-1.28	2.34
15,215.00	91.00	6.00	12,394.07	2,761.64	-64.15	2,762.11	4.82	-4.68	1.17
15,310.00	89.10	1.70	12,393.99	2,856.40	-57.77	2,856.80	4.95	-2.00	-4.53
15,404.00	91.60	3.10	12,393.42	2,950.31	-53.84	2,950.67	3.05	2.66	1.49
15,499.00	88.50	2.50	12,393.33	3,045.18	-49.19	3,045.50	3.32	-3.26	-0.63
15,593.00	89.70	4.30	12,394.81	3,139.00	-43.62	3,139.26	2.30	1.28	1.91
15,687.00	90.10	4.30	12,394.97	3,232.74	-36.57	3,232.93	0.43	0.43	0.00
15,804.00	89.80	2.60	12,395.08	3,349.52	-29.53	3,349.65	1.48	-0.26	-1.45
15,898.00	89.80	3.80	12,395.41	3,443.37	-24.29	3,443.45	1.28	0.00	1.28
15,992.00	90.10	0.20	12,395.49	3,537.30	-21.01	3,537.34	3.84	0.32	-3.83
16,087.00	88.80	358.90	12,396.40	3,632.29	-21.75	3,632.34	1.94	-1.37	-1.37
16,181.00	86.90	358.30	12,399.93	3,726.19	-24.05	3,726.25	2.12	-2.02	-0.64
16,275.00	90.80	357.50	12,401.81	3,820.09	-27.49	3,820.18	4.24	4.15	-0.85
16,370.00	92.70	358.10	12,398.91	3,914.97	-31.13	3,915.09	2.10	2.00	0.63
16,464.00	93.40	357.80	12,393.91	4,008.77	-34.49	4,008.92	0.81	0.74	-0.32
16,559.00	92.20	357.40	12,389.27	4,103.57	-38.47	4,103.75	1.33	-1.26	-0.42
16,653.00	91.30	356.30	12,386.40	4,197.39	-43.63	4,197.61	1.51	-0.96	-1.17
16,748.00	90.70	356.50	12,384.74	4,292.18	-49.59	4,292.46	0.67	-0.63	0.21
16,842.00	92.00	359.50	12,382.52	4,386.09	-52.87	4,386.38	3.48	1.38	3.19
16,936.00	89.60	358.30	12,381.21	4,480.05	-54.68	4,480.36	2.85	-2.55	-1.28
17,031.00	90.10	359.80	12,381.46	4,575.04	-56.25	4,575.36	1.66	0.53	1.58
17,104.44	89.71	357.69	12,381.58	4,648.45	-57.86	4,648.79	2.92	-0.53	-2.87
330' HL Intersection- 17104.44' MD									
17,125.00	89.60	357.10	12,381.71	4,668.99	-58.79	4,669.33	2.92	-0.53	-2.87
17,148.00	89.50	356.90	12,381.89	4,691.96	-60.00	4,692.31	0.97	-0.43	-0.87



MS Directional Survey Report



Company: Matador Resources
Project: Lea County, New Mexico (NAD 27)
Site: Leslie Fed Com
Well: Leslie Fed Com #217H
Wellbore: Wellbore #1
Design: Surveys

Local Co-ordinate Reference: Well Leslie Fed Com #217H
TVD Reference: WELL @ 3307.50usft (Patterson 282)
MD Reference: WELL @ 3307.50usft (Patterson 282)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM 5000.1 Conroe DB

Survey

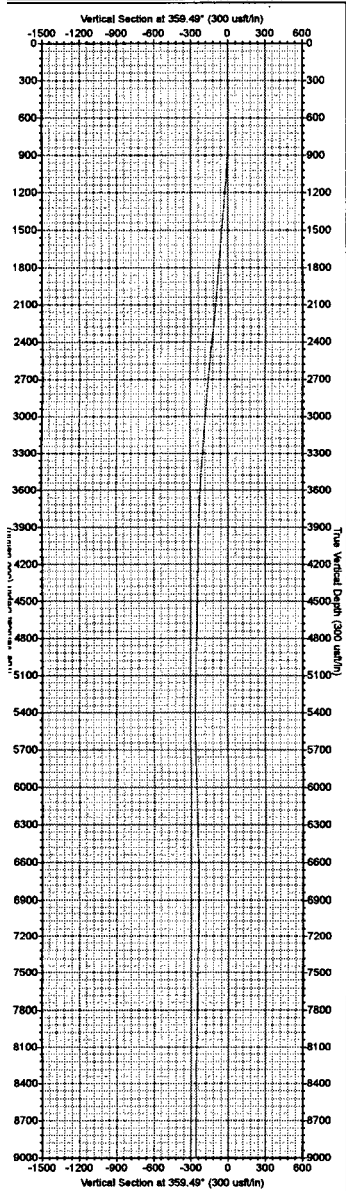
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
17,205.00	89.50	356.90	12,382.39	4,748.87	-63.08	4,749.25	0.00	0.00	0.00
Projection to TD-17205.00' MD									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
12,457.99	12,343.74	29.89	-13.44	330' HL Intersection- 12457.99' MD
17,104.44	12,381.58	4,648.45	-57.86	330' HL Intersection- 17104.44' MD
17,205.00	12,382.39	4,748.87	-63.08	Projection to TD-17205.00' MD



Company: Matador Resources
Site: Leslie Fed Com
Well: Leslie Fed Com #217H
Project: Lea County, New Mexico (NAD 27)
Rig: Patterson 282

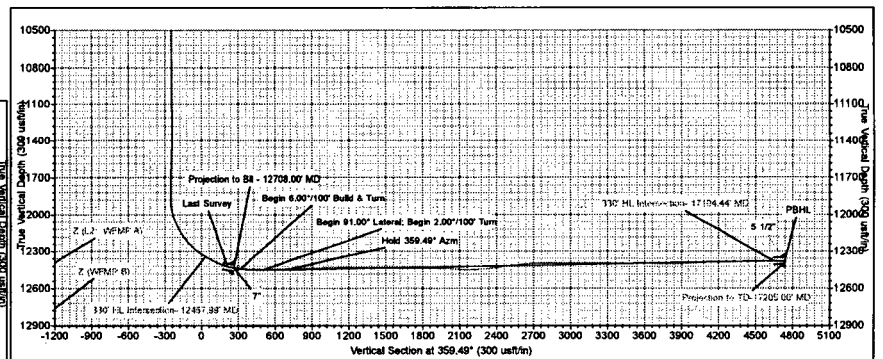
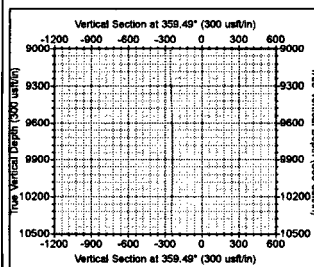
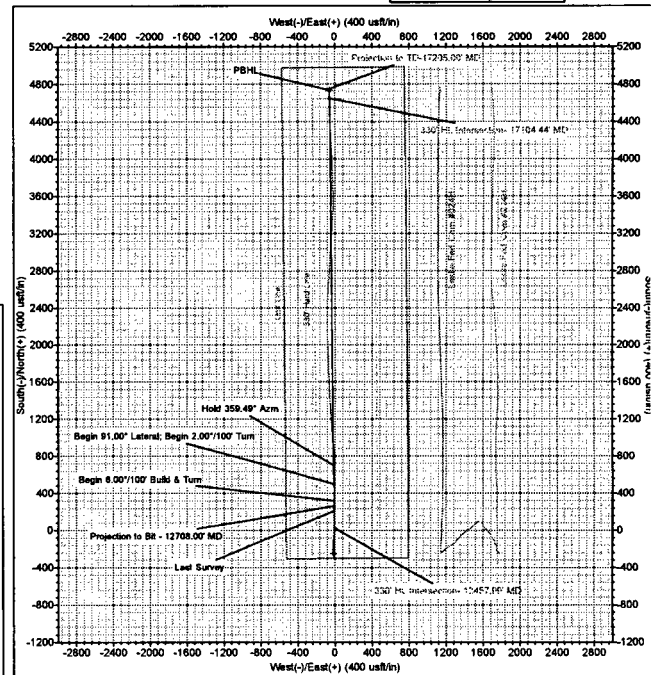
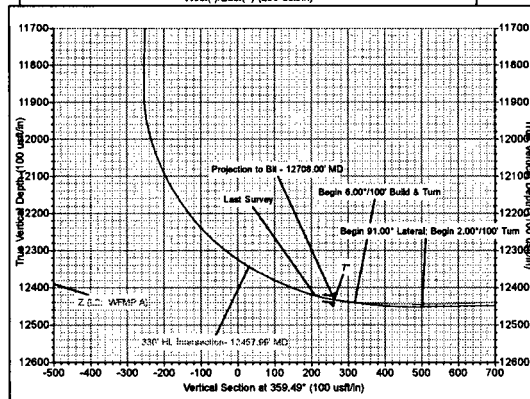
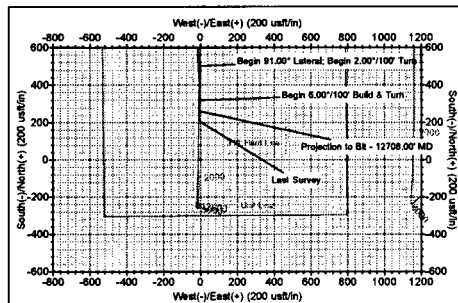


ANNOTATIONS									
MD	Inc	Act	TVD	+N-S	+E-W	V-Sect	Departure	Annotation	
12695.00	75.00	1.80	12421.62	210.28	-10.83	210.35	0.00	Last Survey	
12708.00	82.00	1.80	12432.08	282.14	-8.20	282.21	51.90	Projection to BH - 12708.00' MD	
12765.00	82.00	1.80	12446.01	318.55	-7.43	318.61	108.35	Begin 6.00°/100' Build & Turn	
12947.92	91.00	359.49	12451.18	500.80	-11.77	500.89	200.74	Begin 91.00° Lateral; Begin 2.00°/100' Turn	
13147.34	91.00	359.49	12467.70	699.98	-10.48	700.12	400.13	Hold 359.49° Azim	
17196.58	91.00	359.49	12377.28	4738.43	-56.50	4738.75	4828.76	PBHL	



Azimuths to Grid North
True North: -0.50°
Magnetic North: 6.31°
Magnetic Field
Strength: 47811.5nT
Dip Angle: 59.85°
Date: 9/15/2018
Model: BGGM2018

WELL DETAILS: Leslie Fed Com #217H				
+N-S	+E-W	Northings	Eastings	Latitude
0.00	0.00	410058.43	792948.60	32° 7' 25.799 N 103° 23' 14.602 W
US State Plane 1927 (Exact solution) New Mexico East 3001				
Created By: SRA				
Date: 10/01/2018				
Plan: Design #3				



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