

WPXENERGY

15-43586

WPX

Eddy County, NM (Nad83NME)
East Pecos Federal Com 22-14H
22-14H

Lateral

Design: Lateral

Standard Survey Report

02 July, 2016



Quintana Energy Services

11390 FM 830
Willis, TX 77318
Phone: (936) 856-4332
Fax: (936) 856-8678



Survey Certification Sheet

Company	Job Number	Date
RKI EXPLORATION & PRODUCTION, LLC (WPX)	WT-160199	7/8/2016

Lease	Well Name	County & State
Sec22,T26S,R29E	East Pecos Federal Com 22	Eddy, NM

API No.	Survey Depth Range	Survey Type
30-015-43586	156 feet to 15840 feet MD	MWD

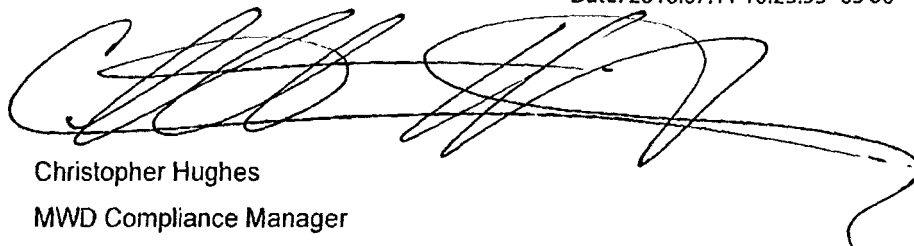
Sidetrack Information	Directional Supervisor/Surveyor
6/10/2015 - 7/03/2015	Jesse Herring

Certification Statement

The data and calculations for this survey have been checked by me and conform to the standards and procedures set forth by Quintana Energy Services (QES). This report represents a true and correct directional survey of this well based on the original data obtained at the well site. Wellbore coordinates are calculated using minimum curvature.

Christopher Hughes

Digitally signed by Christopher Hughes
DN: cn=Christopher Hughes, o=QES,
ou=compliance, email=chrish@qeslp.com, c=US
Date: 2016.07.11 10:23:55 -05'00'



Christopher Hughes
MWD Compliance Manager

Company: WPX
Project: Eddy County, NM (Nad83NME)
Site: East Pecos Federal Com 22-14H
Well: 22-14H
Wellbore: Lateral
Design: Lateral

Local Co-ordinate Reference: Well 22-14H
TVD Reference: 2882' GL + 25' RKB @ 2907.0usft (Orion Phoenix)
MD Reference: 2882' GL + 25' RKB @ 2907.0usft (Orion Phoenix)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM5002

Project	Eddy County, NM (Nad83NME)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site East Pecos Federal Com 22-14H

Site Position: Northing: 371,571.40 usft Latitude: 32° 1' 15.605 N
From: Map Easting: 654,793.40 usft Longitude: 103° 58' 2.100 W
Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 " Grid Convergence: 0.19 °

Well 22-14H
Well Position +N/-S 0.0 usft Northing: 371,571.40 usft Latitude: 32° 1' 15.605 N
+E/-W 0.0 usft Easting: 654,793.40 usft Longitude: 103° 58' 2.100 W
Position Uncertainty 0.0 usft Wellhead Elevation: 0.0 usft Ground Level: 2,882.0 usft

Wellbore Lateral

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/15/2016	7.23	59.82	47,882

Design Lateral

Audit Notes:

Version: 1.0 Phase: ACTUAL Tie On Depth: 0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	359.78

Survey Program Date 7/2/2016

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
156.0	15,840.0	MWD Surveys (Lateral)	MWD	MWD - Standard

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
156.0	0.80	25.60	156.0	1.0	0.5	1.0	0.51	0.51	0.00
324.0	1.60	316.20	324.0	3.7	-0.6	3.7	0.90	0.48	-41.31
428.0	1.90	315.00	427.9	6.0	-2.9	6.0	0.29	0.29	-1.15
518.0	2.40	312.00	517.9	8.3	-5.3	8.3	0.57	0.56	-3.33
609.0	0.90	183.70	608.8	8.9	-6.8	8.9	3.34	-1.65	-140.99
701.0	1.70	162.80	700.8	6.9	-6.4	6.9	1.00	0.87	-22.72
793.0	2.00	156.10	792.8	4.1	-5.4	4.1	0.40	0.33	-7.28
885.0	0.20	217.60	884.7	2.5	-4.8	2.5	2.08	-1.96	66.85

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MD Reference: 2882' GL + 25' RKB @ 2907.0usft (Orion Phoenix)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM5002

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)
977.0	0.10	245.60	976.7	2.3	-5.0	2.3	0.13	-0.11	30.43
1,067.0	0.20	307.80	1,066.7	2.4	-5.2	2.4	0.20	0.11	69.11
1,158.0	0.30	281.30	1,157.7	2.5	-5.6	2.6	0.17	0.11	-29.12
1,250.0	0.90	229.20	1,249.7	2.1	-6.3	2.1	0.82	0.65	-56.63
1,341.0	0.70	227.50	1,340.7	1.3	-7.3	1.3	0.22	-0.22	-1.87
1,432.0	0.80	250.80	1,431.7	0.7	-8.3	0.7	0.35	0.11	25.60
1,524.0	0.90	230.40	1,523.7	0.0	-9.5	0.0	0.34	0.11	-22.17
1,614.0	0.90	240.50	1,613.7	-0.8	-10.6	-0.7	0.18	0.00	11.22
1,709.0	1.20	232.00	1,708.7	-1.8	-12.1	-1.7	0.35	0.32	-8.95
1,803.0	1.10	231.90	1,802.7	-2.9	-13.5	-2.9	0.11	-0.11	-0.11
1,898.0	1.10	252.60	1,897.6	-3.8	-15.1	-3.7	0.42	0.00	21.79
1,993.0	1.30	240.60	1,992.6	-4.6	-16.9	-4.5	0.34	0.21	-12.63
2,088.0	1.00	231.90	2,087.6	-5.6	-18.5	-5.5	0.36	-0.32	-9.16
2,182.0	1.10	239.80	2,181.6	-6.6	-19.9	-6.5	0.19	0.11	8.40
2,278.0	0.50	202.90	2,277.6	-7.4	-20.9	-7.3	0.79	-0.63	-38.44
2,373.0	0.90	147.70	2,372.6	-8.4	-20.7	-8.4	0.78	0.42	-58.11
2,468.0	1.20	115.30	2,467.6	-9.5	-19.4	-9.4	0.69	0.32	-34.11
2,563.0	1.90	105.50	2,562.5	-10.3	-17.0	-10.3	0.79	0.74	-10.32
2,657.0	2.50	111.40	2,656.4	-11.5	-13.5	-11.4	0.68	0.64	6.28
2,752.0	1.40	104.80	2,751.4	-12.5	-10.5	-12.5	1.18	-1.16	-6.95
2,847.0	0.70	148.20	2,846.4	-13.3	-9.1	-13.3	1.07	-0.74	45.68
2,941.0	0.50	152.20	2,940.4	-14.2	-8.6	-14.2	0.22	-0.21	4.26
3,036.0	0.50	114.40	3,035.4	-14.7	-8.0	-14.7	0.34	0.00	-39.79
3,116.0	0.50	111.30	3,115.4	-15.0	-7.4	-15.0	0.03	0.00	-3.88
3,208.0	0.30	105.20	3,207.4	-15.2	-6.8	-15.2	0.22	-0.22	-6.63
3,303.0	2.40	139.00	3,302.3	-16.8	-5.2	-16.8	2.27	2.21	35.58
3,397.0	5.60	135.20	3,396.1	-21.5	-0.7	-21.5	3.41	3.40	-4.04
3,492.0	6.60	137.70	3,490.6	-28.8	6.3	-28.9	1.09	1.05	2.63
3,587.0	6.40	138.90	3,584.9	-36.9	13.4	-36.9	0.25	-0.21	1.26
3,682.0	6.40	141.00	3,679.3	-45.0	20.2	-45.1	0.25	0.00	2.21
3,776.0	5.90	139.80	3,772.8	-52.7	26.6	-52.8	0.55	-0.53	-1.28
3,871.0	5.70	139.30	3,867.3	-60.0	32.9	-60.2	0.22	-0.21	-0.53
3,966.0	5.90	138.10	3,961.8	-67.3	39.2	-67.4	0.25	0.21	-1.26
4,061.0	5.70	137.60	4,056.3	-74.4	45.6	-74.5	0.22	-0.21	-0.53
4,156.0	6.10	136.90	4,150.8	-81.5	52.3	-81.7	0.43	0.42	-0.74
4,251.0	6.20	136.60	4,245.3	-89.0	59.3	-89.2	0.11	0.11	-0.32
4,346.0	6.30	136.60	4,339.7	-96.5	66.4	-96.7	0.11	0.11	0.00
4,440.0	6.20	137.30	4,433.2	-103.9	73.3	-104.2	0.13	-0.11	0.74
4,536.0	6.10	138.90	4,528.6	-111.6	80.2	-111.9	0.21	-0.10	1.67
4,631.0	6.00	138.30	4,623.1	-119.1	86.8	-119.4	0.12	-0.11	-0.63
4,726.0	5.70	137.90	4,717.6	-126.3	93.3	-126.7	0.32	-0.32	-0.42
4,821.0	5.80	138.90	4,812.1	-133.4	99.6	-133.8	0.15	0.11	1.05

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Database: EDM5002

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)
4,916.0	6.00	139.50	4,906.6	-140.8	106.0	-141.2	0.22	0.21	0.63
5,011.0	6.20	138.90	5,001.1	-148.5	112.6	-148.9	0.22	0.21	-0.63
5,106.0	6.20	138.60	5,095.5	-156.2	119.4	-156.6	0.03	0.00	-0.32
5,201.0	6.10	139.80	5,190.0	-163.9	126.0	-164.4	0.17	-0.11	1.26
5,295.0	5.70	140.60	5,283.5	-171.3	132.2	-171.8	0.43	-0.43	0.85
5,391.0	5.50	124.70	5,379.0	-177.6	139.0	-178.1	1.62	-0.21	-16.56
5,486.0	5.70	120.80	5,473.6	-182.6	146.8	-183.2	0.45	0.21	-4.11
5,581.0	5.50	134.70	5,568.1	-188.2	154.1	-188.8	1.44	-0.21	14.63
5,676.0	5.20	140.70	5,662.7	-194.8	160.1	-195.4	0.67	-0.32	6.32
5,770.0	5.10	141.90	5,756.3	-201.4	165.3	-202.0	0.16	-0.11	1.28
5,865.0	5.60	137.20	5,850.9	-208.1	171.1	-208.7	0.70	0.53	-4.95
5,960.0	6.20	135.80	5,945.4	-215.2	177.8	-215.8	0.65	0.63	-1.47
6,055.0	6.00	137.50	6,039.9	-222.5	184.7	-223.2	0.28	-0.21	1.79
6,150.0	6.00	135.70	6,134.4	-229.7	191.6	-230.4	0.20	0.00	-1.89
6,245.0	6.20	137.50	6,228.8	-237.0	198.5	-237.8	0.29	0.21	1.89
6,340.0	5.50	139.00	6,323.3	-244.3	204.9	-245.0	0.75	-0.74	1.58
6,435.0	5.80	140.20	6,417.9	-251.4	211.0	-252.2	0.34	0.32	1.26
6,530.0	5.60	141.70	6,512.4	-258.7	217.0	-259.5	0.26	-0.21	1.58
6,625.0	6.10	137.10	6,606.9	-266.0	223.3	-266.9	0.72	0.53	-4.84
6,720.0	5.60	136.90	6,701.4	-273.1	229.9	-274.0	0.53	-0.53	-0.21
6,815.0	6.00	130.20	6,795.9	-279.7	236.8	-280.6	0.83	0.42	-7.05
6,910.0	5.10	127.50	6,890.5	-285.5	244.0	-286.4	0.99	-0.95	-2.84
7,004.0	4.40	113.50	6,984.2	-289.5	250.6	-290.4	1.44	-0.74	-14.89
7,098.0	4.80	95.40	7,077.9	-291.3	257.8	-292.3	1.59	0.43	-19.26
7,194.0	6.60	86.00	7,173.4	-291.3	267.3	-292.3	2.11	1.88	-9.79
7,289.0	6.60	96.20	7,267.7	-291.5	278.2	-292.6	1.23	0.00	10.74
7,384.0	5.80	103.90	7,362.2	-293.2	288.3	-294.3	1.21	-0.84	8.11
7,479.0	4.80	94.70	7,456.8	-294.7	296.9	-295.8	1.38	-1.05	-9.68
7,573.0	4.20	77.90	7,550.5	-294.3	304.2	-295.5	1.53	-0.64	-17.87
7,669.0	5.00	79.80	7,646.2	-292.8	311.7	-294.0	0.85	0.83	1.98
7,764.0	5.50	87.90	7,740.8	-291.9	320.4	-293.2	0.94	0.53	8.53
7,859.0	4.90	92.80	7,835.4	-292.0	329.0	-293.2	0.79	-0.63	5.16
7,955.0	5.00	86.70	7,931.0	-291.9	337.2	-293.2	0.56	0.10	-6.35
8,050.0	4.30	95.70	8,025.7	-292.0	344.9	-293.4	1.06	-0.74	9.47
8,145.0	4.90	110.20	8,120.4	-293.8	352.3	-295.1	1.37	0.63	15.26
8,240.0	5.70	112.10	8,215.0	-297.0	360.4	-298.4	0.86	0.84	2.00
8,334.0	4.40	111.90	8,308.7	-300.1	368.1	-301.5	1.38	-1.38	-0.21
8,430.0	5.80	110.70	8,404.3	-303.2	376.1	-304.6	1.46	1.46	-1.25
8,525.0	7.30	105.00	8,498.7	-306.4	386.4	-307.9	1.72	1.58	-6.00
8,620.0	6.40	105.10	8,593.0	-309.4	397.3	-310.9	0.95	-0.95	0.11
8,715.0	6.40	98.00	8,687.4	-311.5	407.7	-313.0	0.83	0.00	-7.47
8,810.0	6.10	88.80	8,781.8	-312.1	418.0	-313.7	1.10	-0.32	-9.68

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8,906.0	7.10	88.40	8,877.2	-311.8	429.0	-313.5	1.04	1.04	-0.42
9,000.0	5.30	88.20	8,970.6	-311.5	439.2	-313.2	1.92	-1.91	-0.21
9,095.0	6.20	94.10	9,065.2	-311.8	448.7	-313.5	1.13	0.95	6.21
9,191.0	6.60	93.50	9,160.6	-312.5	459.3	-314.2	0.42	0.42	-0.63
9,286.0	4.80	93.70	9,255.1	-313.1	468.8	-314.9	1.89	-1.89	0.21
9,380.0	5.80	87.10	9,348.7	-313.1	477.4	-314.9	1.24	1.06	-7.02
9,475.0	5.50	90.00	9,443.2	-312.8	486.8	-314.7	0.44	-0.32	3.05
9,571.0	4.70	91.10	9,538.8	-312.9	495.3	-314.8	0.84	-0.83	1.15
9,665.0	4.40	96.30	9,632.5	-313.4	502.7	-315.3	0.54	-0.32	5.53
9,760.0	4.30	98.30	9,727.3	-314.3	509.9	-316.2	0.19	-0.11	2.11
9,855.0	4.20	102.10	9,822.0	-315.5	516.8	-317.5	0.31	-0.11	4.00
9,950.0	3.80	112.80	9,916.8	-317.5	523.1	-319.5	0.89	-0.42	11.26
10,045.0	2.50	86.80	10,011.6	-318.6	528.1	-320.6	2.00	-1.37	-27.37
10,140.0	2.00	82.30	10,106.6	-318.3	531.8	-320.3	0.56	-0.53	-4.74
10,235.0	1.30	83.50	10,201.5	-317.9	534.5	-320.0	0.74	-0.74	1.26
10,329.0	0.70	93.60	10,295.5	-317.8	536.1	-319.9	0.66	-0.64	10.74
10,342.0	0.30	80.90	10,308.5	-317.8	536.3	-319.9	3.17	-3.08	-97.69
10,432.0	1.40	0.40	10,398.5	-316.7	536.5	-318.7	1.54	1.22	-89.44
10,463.0	4.10	358.20	10,429.5	-315.2	536.5	-317.3	8.71	8.71	-7.10
10,495.0	6.80	0.30	10,461.3	-312.2	536.4	-314.2	8.46	8.44	6.56
10,527.0	9.60	2.50	10,493.0	-307.6	536.6	-309.7	8.80	8.75	6.88
10,559.0	12.40	4.70	10,524.4	-301.5	537.0	-303.6	8.85	8.75	6.88
10,591.0	14.50	8.70	10,555.5	-294.1	537.8	-296.2	7.17	6.56	12.50
10,622.0	16.50	10.70	10,585.4	-286.0	539.3	-288.0	6.68	6.45	6.45
10,683.0	21.20	12.80	10,643.1	-266.7	543.3	-268.8	7.78	7.70	3.44
10,715.0	25.20	12.30	10,672.5	-254.4	546.0	-256.5	12.52	12.50	-1.56
10,746.0	29.50	11.80	10,700.0	-240.5	549.0	-242.6	13.89	13.87	-1.61
10,778.0	34.00	11.60	10,727.2	-224.0	552.4	-226.1	14.07	14.06	-0.63
10,810.0	37.80	11.40	10,753.2	-205.6	556.2	-207.7	11.88	11.88	-0.63
10,841.0	42.70	12.50	10,776.8	-186.0	560.3	-188.1	15.97	15.81	3.55
10,873.0	48.20	12.00	10,799.2	-163.7	565.1	-165.9	17.22	17.19	-1.56
10,904.0	52.10	11.10	10,819.1	-140.4	569.9	-142.6	12.78	12.58	-2.90
10,949.0	58.30	6.40	10,844.8	-103.9	575.5	-106.1	16.22	13.78	-10.44
10,999.0	66.60	2.70	10,867.9	-59.8	578.9	-62.0	17.85	16.60	-7.40
11,068.0	72.30	2.10	10,892.1	4.8	581.6	2.5	8.30	8.26	-0.87
11,099.0	76.60	0.60	10,900.4	34.6	582.3	32.4	14.63	13.87	-4.84
11,130.0	81.20	359.20	10,906.4	65.0	582.3	62.8	15.49	14.84	-4.52
11,162.0	84.00	357.90	10,910.5	96.7	581.5	94.5	9.63	8.75	-4.06
11,193.0	84.50	357.90	10,913.6	127.6	580.3	125.3	1.61	1.61	0.00
11,224.0	84.30	357.90	10,916.6	158.4	579.2	156.2	0.65	-0.65	0.00
11,256.0	83.90	358.80	10,919.9	190.2	578.3	188.0	3.06	-1.25	2.81
11,288.0	83.70	359.00	10,923.4	222.0	577.7	219.8	0.88	-0.63	0.63

Company: WPX
Project: Eddy County, NM (Nad83NME)
Site: East Pecos Federal Com 22-14H
Well: 22-14H
Wellbore: Lateral
Design: Lateral

Local Co-ordinate Reference: Well 22-14H
TVD Reference: 2882' GL + 25' RKB @ 2907.0usft (Orion Phoenix)
MD Reference: 2882' GL + 25' RKB @ 2907.0usft (Orion Phoenix)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM5002

Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Bulld Rate (°/100usft)	Turn Rate (°/100usft)
11,319.0	83.30	359.60	10,926.9	252.8	577.3	250.6	2.32	-1.29	1.94
11,351.0	83.10	359.70	10,930.7	284.6	577.1	282.4	0.70	-0.63	0.31
11,413.0	82.60	0.50	10,938.4	346.1	577.2	343.9	1.51	-0.81	1.29
11,507.0	82.00	1.70	10,951.0	439.2	579.0	437.0	1.42	-0.64	1.28
11,601.0	80.70	3.20	10,965.1	532.1	583.0	529.8	2.10	-1.38	1.60
11,695.0	80.00	3.40	10,980.9	624.6	588.3	622.3	0.77	-0.74	0.21
11,790.0	82.00	1.10	10,995.7	718.3	592.0	716.1	3.19	2.11	-2.42
11,884.0	84.30	358.60	11,007.0	811.7	591.7	809.4	3.60	2.45	-2.66
11,978.0	83.00	357.90	11,017.4	905.0	588.9	902.8	1.57	-1.38	-0.74
12,072.0	85.90	357.90	11,026.4	998.5	585.4	996.3	3.09	3.09	0.00
12,166.0	90.20	358.40	11,029.6	1,092.4	582.4	1,090.2	4.61	4.57	0.53
12,261.0	90.50	358.70	11,029.1	1,187.4	580.0	1,185.1	0.45	0.32	0.32
12,355.0	90.50	358.70	11,028.2	1,281.3	577.9	1,279.1	0.00	0.00	0.00
12,449.0	90.90	358.80	11,027.1	1,375.3	575.8	1,373.1	0.44	0.43	0.11
12,544.0	90.80	358.90	11,025.7	1,470.3	573.9	1,468.1	0.15	-0.11	0.11
12,638.0	90.60	358.40	11,024.5	1,564.2	571.7	1,562.0	0.57	-0.21	-0.53
12,732.0	90.30	358.10	11,023.8	1,658.2	568.8	1,656.0	0.45	-0.32	-0.32
12,826.0	90.90	358.90	11,022.8	1,752.2	566.4	1,750.0	1.06	0.64	0.85
12,921.0	91.20	359.70	11,021.1	1,847.1	565.2	1,845.0	0.90	0.32	0.84
13,015.0	89.50	0.20	11,020.5	1,941.1	565.1	1,938.9	1.89	-1.81	0.53
13,109.0	89.30	0.30	11,021.5	2,035.1	565.5	2,032.9	0.24	-0.21	0.11
13,203.0	89.20	0.20	11,022.7	2,129.1	566.0	2,126.9	0.15	-0.11	-0.11
13,298.0	89.50	0.80	11,023.8	2,224.1	566.8	2,221.9	0.71	0.32	0.63
13,392.0	89.90	0.80	11,024.3	2,318.1	568.1	2,315.9	0.43	0.43	0.00
13,486.0	88.40	0.30	11,025.7	2,412.1	569.0	2,409.9	1.68	-1.60	-0.53
13,579.0	87.30	359.70	11,029.2	2,505.0	569.0	2,502.8	1.35	-1.18	-0.65
13,674.0	90.20	0.00	11,031.2	2,600.0	568.8	2,597.8	3.07	3.05	0.32
13,768.0	91.90	359.60	11,029.5	2,694.0	568.4	2,691.8	1.86	1.81	-0.43
13,863.0	90.90	359.90	11,027.2	2,788.9	568.0	2,786.7	1.10	-1.05	0.32
13,957.0	88.80	0.50	11,027.4	2,882.9	568.3	2,880.7	2.32	-2.23	0.64
14,050.0	88.90	0.70	11,029.3	2,975.9	569.3	2,973.7	0.24	0.11	0.22
14,144.0	89.70	0.30	11,030.5	3,069.9	570.1	3,067.7	0.95	0.85	-0.43
14,238.0	91.30	0.70	11,029.6	3,163.9	571.0	3,161.7	1.75	1.70	0.43
14,333.0	88.10	0.30	11,030.1	3,258.9	571.8	3,256.6	3.39	-3.37	-0.42
14,427.0	88.10	0.50	11,033.3	3,352.8	572.4	3,350.6	0.21	0.00	0.21
14,502.0	88.00	1.00	11,035.8	3,427.8	573.4	3,425.5	0.68	-0.13	0.67
14,597.0	89.10	1.00	11,038.2	3,522.7	575.1	3,520.5	1.16	1.16	0.00
14,690.0	89.30	1.20	11,039.5	3,615.7	576.9	3,613.4	0.30	0.22	0.22
14,784.0	90.50	2.20	11,039.7	3,709.6	579.6	3,707.4	1.66	1.28	1.06
14,878.0	89.50	1.20	11,039.7	3,803.6	582.4	3,801.3	1.50	-1.06	-1.06
14,973.0	88.80	0.10	11,041.1	3,898.6	583.5	3,896.3	1.37	-0.74	-1.16
15,067.0	89.90	0.20	11,042.1	3,992.6	583.8	3,990.3	1.18	1.17	0.11

Company: WPX
Project: Eddy County, NM (Nad83NME)
Site: East Pecos Federal Com 22-14H
Well: 22-14H
Wellbore: Lateral
Design: Lateral

Local Co-ordinate Reference: Well 22-14H
TVD Reference: 2882' GL + 25' RKB @ 2907.0usft (Orion Phoenix)
MD Reference: 2882' GL + 25' RKB @ 2907.0usft (Orion Phoenix)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM5002

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)
15,162.0	90.10	359.80	11,042.1	4,087.6	583.8	4,085.3	0.47	0.21	-0.42
15,256.0	90.30	0.00	11,041.8	4,181.6	583.6	4,179.3	0.30	0.21	0.21
15,349.0	90.60	0.40	11,041.1	4,274.6	583.9	4,272.3	0.54	0.32	0.43
15,444.0	89.80	0.30	11,040.7	4,369.6	584.5	4,367.3	0.74	-0.74	-0.11
15,538.0	90.70	0.70	11,040.2	4,463.6	585.3	4,461.3	0.95	0.85	0.43
15,633.0	91.00	1.40	11,038.8	4,558.5	587.1	4,556.2	0.80	0.32	0.74
15,727.0	91.00	2.20	11,037.1	4,652.5	590.0	4,650.2	0.85	0.00	0.85
15,785.0	91.20	2.70	11,036.0	4,710.4	592.5	4,708.1	0.93	0.34	0.86
15,840.0	91.20	2.70	11,034.9	4,765.3	595.1	4,763.0	0.00	0.00	0.00

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
156.0	156.0	1.0	0.5	First MWD Survey @ 156' MD / 156' TVD
15,840.0	11,034.9	4,765.3	595.1	TD @ 15840' MD / 11034' TVD

Quintana Energy Services

11390 FM 830

Willis, TX 77318

Phone: (936) 856-4332

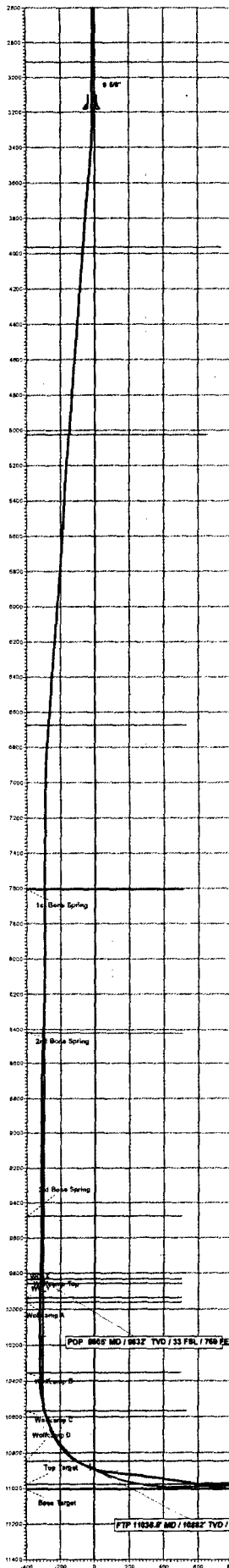
Fax: (936) 856-8678

Quintana Energy Services



22-14H
Eddy County, NM (Nad83NME)
Q160266 & WT-160199
Design #9

WPXENERGY

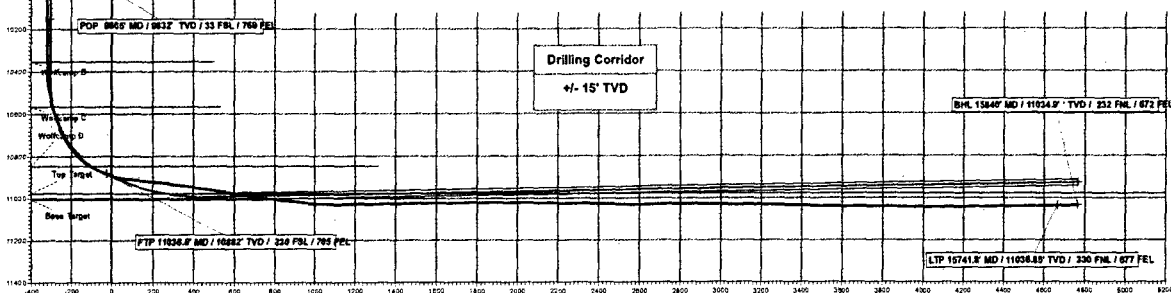
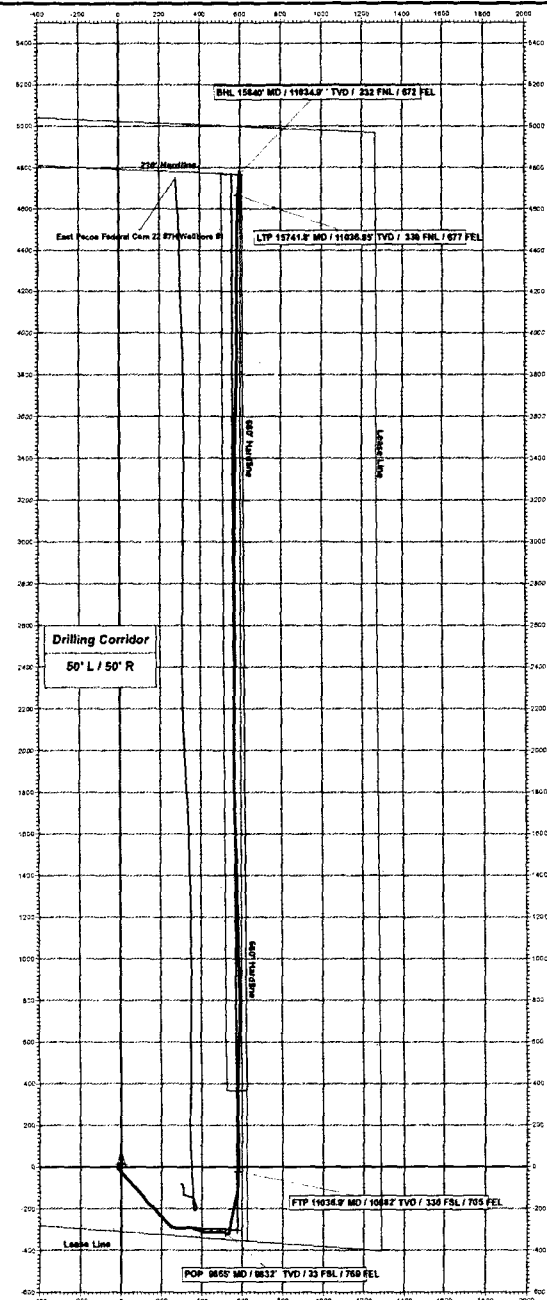


Geodetic System: US State Plane 1983
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone: New Mexico Eastern Zone
System Datum: Mean Sea Level

+N-S	+E-W	Ground Level:		2882.0		
0.0	0.0	Northing	Easting	Latitude	Longitude	
		371571.40	654793.40	32° 1' 15.605 N	103° 58' 2.100 W	

DESIGN TARGET DETAILS							
Name	TVD	+N-S	+E-W	Nothing	Easting	Latitude	Longitude
PQZ East Pecos Federal Cor: 22-14H	10832.0	-315.7	517.5	371295.71	655319.92	32° 1' 12.464 N	103° 57' 48.101 W
VP 22-14H Lateral	10151.6	-332.7	576.5	371268.69	655269.63	32° 1' 12.590 N	103° 57' 55.415 W
FTP East Pecos Federal Cor: 22-14H	10882.0	-22.3	580.5	371549.13	655373.89	32° 1' 15.366 N	103° 57' 55.368 W
PBHL East Pecos Federal Cor: 22-14H	10926.0	4768.7	557.1	376345.14	655950.55	32° 2' 2.779 N	103° 57' 55.442 W
BHL East Pecos Federal Cor: 22-14H	11034.5	4765.3	595.1	376356.73	655958.48	32° 2' 2.744 N	103° 57' 54.909 W
LTP East Pecos Federal Cor: 22-14H	11036.8	4567.2	590.6	376228.55	655984.05	32° 2' 1.773 N	103° 57' 55.055 W

ANNOATIONS									
MD	inc	Azi	TVD	+N-S	+E-W	VSec	Departure	Annotation	
156.0	0 80	25.6	156.0	1.0	0.3	1.0	1.1	First MWD Survey @ 156' MD / 156' TVD	
15640.0	01.20	2.70	11034.9	4765.3	595.1	4763.0	5814.1	TD @ 15640' MD / 11034' TVD	



Vertical Section at 359.78° (200 usft/in)