

OPERATOR
WELL/LEASE
COUNTY

MEWBOURNE OIL COMPANY
Forty Niner Ridge Unit 104H
Eddy

160-0007

STATE OF NEW MEXICO
DEVIATION REPORT

15-42707

453	1.10	8,170	2.6
568	0.50	8,265	1.4
692	0.60	8,361	2.9
879	0.40	8,456	3.2
1,036	0.40	8,649	2.9
1,130	0.50	8,740	1.5
1,323	0.50	8,842	0.9
1,704	0.50	8,937	2.6
1,990	0.80	9,032	3
2,162	0.60	9,126	2.1
2,370	0.40	9,217	2
2,650	1.20	9,313	2.7
2,840	0.50	9,408	2
3,031	0.30		
3,221	1.60		
4,182	0.90		
4,372	0.30		
4,563	1.20		
4,751	0.50		
4,942	0.91		
5,038	0.40		
5,410	0.40		
5,602	0.20		
5,792	1.10		
5,983	1.10		
6,174	0.90		
6,555	0.60		
6,936	1.60		
7,318	2.20		
7,400	2.80		
7,412	2.30		
7,605	1.90		
7,795	1.30		
7,891	1.40		
8,080	2.30		

NM OIL CONSERVATION

ARTESIA DISTRICT

FEB 26 2015

RECEIVED

BY: Briana Welch

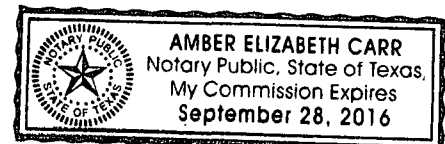
STATE OF TEXAS

COUNTY OF MIDLAND

The foregoing instrument was acknowledged before me on
Briana Welch on behalf of Patterson-UTI Drilling Company LLC.

1/8/15, by

Amber Elizabeth Carr
Notary Public for Midland County, Texas
My Commission Expires:



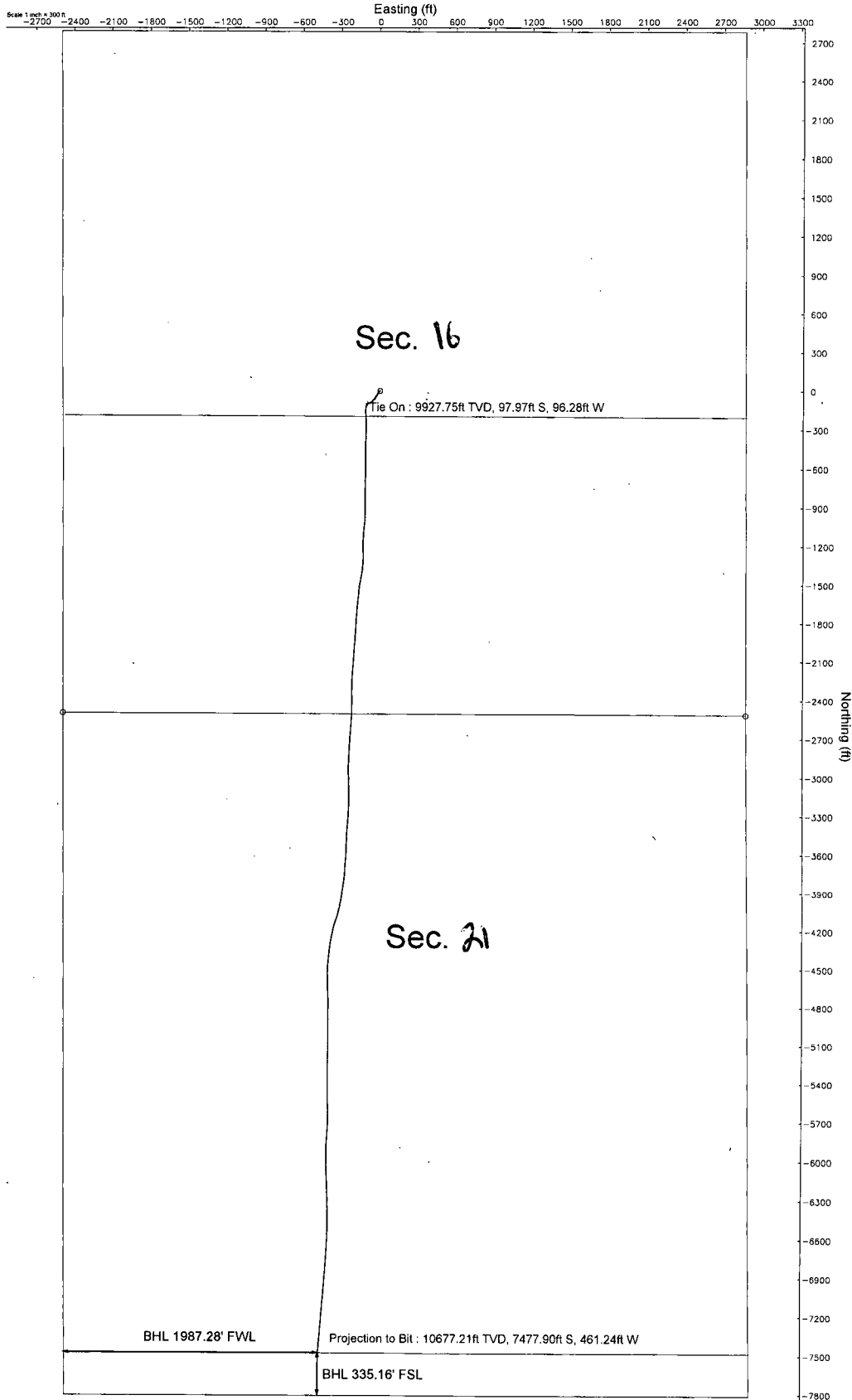


Plot reference wellpath is No. 104H AWB		Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001). US feet	
True vertical depths are referenced to Rig on No. 104H SHL (KB)		North Reference: Grid north	
Measured depths are referenced to Rig on No. 104H SHL (KB)		Scale: True distance	
Rig on No. 104H SHL (KB) to Mean Sea Level: 3163.5 feet		Depths are in feet	
Mean Sea Level to Mud line (At Slot: No. 104H SHL): -3133 feet		Created by: janotho on 06-Feb-15	
Coordinates are in feet referenced to Slot			

Location Information				
Facility Name	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
49er Ridge Unit No. 104H	638076.800	474807.200	32°18'16.453"N	103°53'11.166"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
No. 104H SHL	0.00	0.00	638076.800	474807.200
Rig on No. 104H SHL (KB) to Mud line (At Slot: No. 104H SHL)				30.5ft
Mean Sea Level to Mud line (At Slot: No. 104H SHL)				-3133ft
Rig on No. 104H SHL (KB) to Mean Sea Level				3163.5ft

Wellpath Composition					
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
30.50	9930.00	EMS	EMS (Standard)	VES Gyro Svys <100-9930>	No. 104H AWB
9930.00	17765.00	NaviTrak	NaviTrak (Standard)	BHI NaviTrak <9930-17765>	No. 104H AWB
17765.00	17790.00	Blind Drilling	Blind Drilling (std)	Projection to bit	No. 104H AWB

Bottom Hole Location							
MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)
17790.00	89.660	185.820	10677.21	-7477.90	-461.24	637615.60	467329.83
				Latitude	Longitude		
				32°17'02.476"N	103°53'16.902"W		

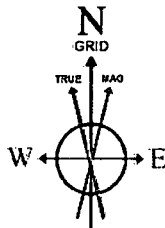


Plot reference wellpath is Rev-C.0

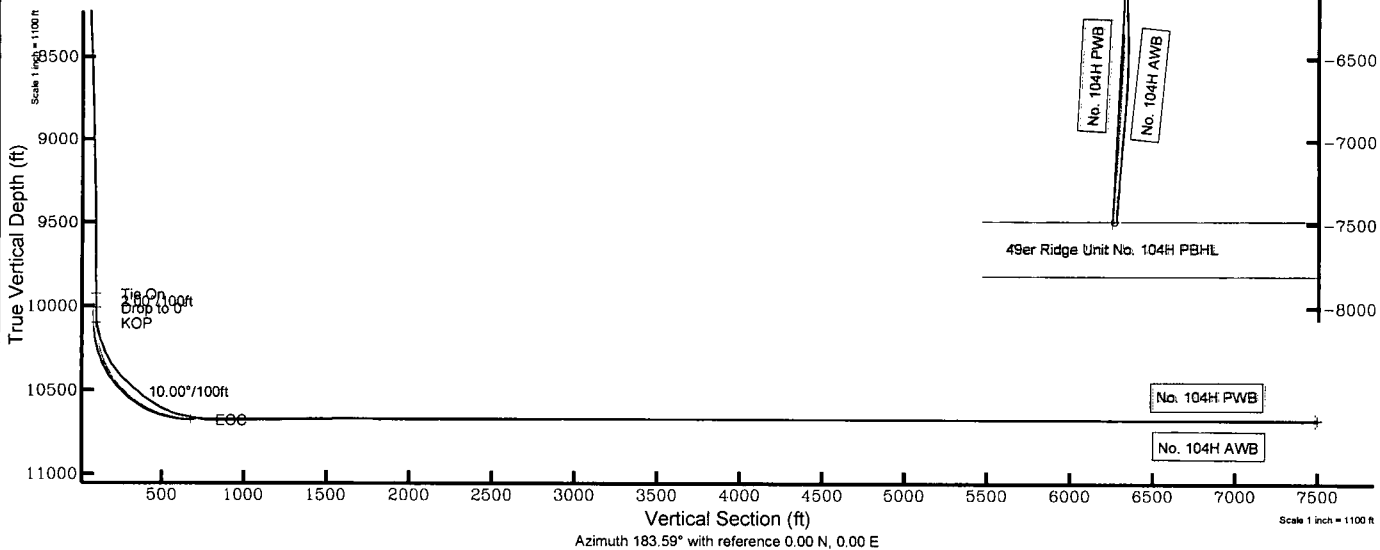
True vertical depths are referenced to Rig on No. 104H SHL (KB)	Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 104H SHL (KB)	North Reference: Grid north
Rig on No. 104H SHL (KB) to Mean Sea Level: 3163.5 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No. 104H SHL): -3133 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: abraail on 2/3/2015

Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
49er Ridge Unit No. 104H			638076.800	474807.200	32°18'16.453"N	103°53'11.166"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
No. 104H SHL	0.00	0.00	638076.800	474807.200	32°18'16.453"N	103°53'11.166"W
Rig on No. 104H SHL (KB) to Mud line (At Slot: No. 104H SHL)					30.5ft	
Mean Sea Level to Mud line (At Slot: No. 104H SHL)					-3133ft	
Rig on No. 104H SHL (KB) to Mean Sea Level					3163.5ft	



BGGM (1945.0 to 2016.0) Dip: 60.11° Field: 48245.8 nT
 Magnetic North is 7.49 degrees East of True North (at 11/10/2014)
 Grid North is 0.24 degrees East of True North
 To correct azimuth from True to Grid subtract 0.24 degrees
 To correct azimuth from Magnetic to Grid add 7.25 degrees



Actual Wellpath Report

No. 104H AWB

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REFERENCE WELLPATH IDENTIFICATION

Operator	Mewbourne Oil Company	Slot	No. 104H SHL
Area	Eddy County, NM	Well	No. 104H
Field	(49er Ridge Unit) Sec 16, T-S 23-S, R 30-E	Wellbore	No. 104H AWB
Facility	49er Ridge Unit No. 104H		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 4.0.0
North Reference	Grid	User	Abraall
Scale	0.999931	Report Generated	2/3/2015 at 1:45:14 PM
Convergence at slot	0.24° East	Database/Source file	WA_Midland/No. 104H_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	638076.80	474807.20	32°18'16.453"N	103°53'11.166"W
Facility Reference Pt			638076.80	474807.20	32°18'16.453"N	103°53'11.166"W
Field Reference Pt			152400.30	0.00	30°59'42.846"N	105°26'33.659"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 104H SHL (KB) to Facility Vertical Datum	30.50ft
Horizontal Reference Pt	Slot	Rig on No. 104H SHL (KB) to Mean Sea Level	3163.50ft
Vertical Reference Pt	Rig on No. 104H SHL (KB)	Rig on No. 104H SHL (KB) to Mud Line at Slot (No. 104H SHL)	30.50ft
MD Reference Pt	Rig on No. 104H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	183.59°

Actual Wellpath Report

No. 104H AWB

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REFERENCE WELLPATH IDENTIFICATION

Operator	Mewbourne Oil Company	Slot	No. 104H SHL
Area	Eddy County, NM	Well	No. 104H
Field	(49er Ridge Unit) Sec 16, T-S 23-S, R 30-E	Wellbore	No. 104H AWB
Facility	49er Ridge Unit No. 104H		

WELLPATH DATA (208 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [%/100ft]	Comments
0.00†	0.000	228.230	0.00	0.00	0.00	0.00	638076.80	474807.20	32°18'16.453"N	103°53'11.166"W	0.00	
30.50	0.000	228.230	30.50	0.00	0.00	0.00	638076.80	474807.20	32°18'16.453"N	103°53'11.166"W	0.00	
100.00	0.640	228.230	100.00	0.28	-0.26	-0.29	638076.51	474806.94	32°18'16.451"N	103°53'11.170"W	0.92	
200.00	0.370	308.320	200.00	0.49	-0.43	-0.96	638075.84	474806.77	32°18'16.449"N	103°53'11.178"W	0.68	
300.00	0.380	255.690	299.99	0.41	-0.31	-1.53	638075.27	474806.89	32°18'16.450"N	103°53'11.184"W	0.33	
400.00	0.880	305.330	399.99	0.11	0.05	-2.48	638074.32	474807.25	32°18'16.454"N	103°53'11.195"W	0.70	
500.00	0.340	240.260	499.98	-0.14	0.35	-3.37	638073.43	474807.55	32°18'16.457"N	103°53'11.206"W	0.80	
600.00	0.350	330.110	599.98	-0.23	0.46	-3.78	638073.02	474807.66	32°18'16.458"N	103°53'11.210"W	0.49	
700.00	0.240	270.760	699.98	-0.47	0.73	-4.14	638072.66	474807.93	32°18'16.461"N	103°53'11.215"W	0.31	
800.00	0.280	33.500	799.98	-0.67	0.94	-4.21	638072.59	474808.14	32°18'16.463"N	103°53'11.215"W	0.46	
900.00	0.340	322.980	899.98	-1.11	1.38	-4.26	638072.54	474808.58	32°18'16.467"N	103°53'11.216"W	0.36	
1000.00	0.310	90.450	999.98	-1.35	1.61	-4.16	638072.64	474808.81	32°18'16.469"N	103°53'11.215"W	0.58	
1100.00	0.260	235.850	1099.98	-1.23	1.48	-4.08	638072.72	474808.68	32°18'16.468"N	103°53'11.214"W	0.54	
1200.00	0.250	61.170	1199.98	-1.20	1.46	-4.08	638072.72	474808.66	32°18'16.468"N	103°53'11.214"W	0.51	
1300.00	0.300	49.630	1299.98	-1.50	1.74	-3.69	638073.11	474808.94	32°18'16.470"N	103°53'11.209"W	0.07	
1400.00	0.250	220.010	1399.98	-1.51	1.74	-3.63	638073.17	474808.94	32°18'16.470"N	103°53'11.209"W	0.55	
1500.00	0.250	130.720	1499.98	-1.20	1.43	-3.60	638073.20	474808.63	32°18'16.467"N	103°53'11.208"W	0.35	
1600.00	0.250	113.020	1599.97	-1.00	1.20	-3.24	638073.56	474808.40	32°18'16.465"N	103°53'11.204"W	0.08	
1700.00	0.240	332.200	1699.97	-1.10	1.30	-3.13	638073.67	474808.50	32°18'16.466"N	103°53'11.203"W	0.46	
1800.00	0.280	86.750	1799.97	-1.31	1.50	-2.99	638073.81	474808.70	32°18'16.468"N	103°53'11.201"W	0.44	
1900.00	0.290	31.400	1899.97	-1.56	1.73	-2.61	638074.19	474808.93	32°18'16.470"N	103°53'11.197"W	0.26	
2000.00	0.530	260.780	1999.97	-1.69	1.87	-2.94	638073.86	474809.07	32°18'16.472"N	103°53'11.200"W	0.75	
2100.00	0.370	235.150	2099.97	-1.38	1.61	-3.66	638073.14	474808.81	32°18'16.469"N	103°53'11.209"W	0.25	
2200.00	0.340	181.450	2199.97	-0.89	1.13	-3.93	638072.87	474808.33	32°18'16.465"N	103°53'11.212"W	0.32	
2300.00	0.340	105.190	2299.96	-0.53	0.76	-3.65	638073.15	474807.96	32°18'16.461"N	103°53'11.209"W	0.42	
2400.00	0.310	260.350	2399.96	-0.41	0.64	-3.63	638073.17	474807.84	32°18'16.460"N	103°53'11.209"W	0.63	
2500.00	0.330	179.960	2499.96	-0.06	0.30	-3.90	638072.90	474807.50	32°18'16.456"N	103°53'11.212"W	0.41	
2600.00	0.460	168.220	2599.96	0.62	-0.38	-3.82	638072.98	474806.82	32°18'16.450"N	103°53'11.211"W	0.15	
2700.00	0.910	131.470	2699.95	1.49	-1.30	-3.14	638073.66	474805.90	32°18'16.440"N	103°53'11.203"W	0.61	
2800.00	0.140	173.170	2799.95	2.10	-1.94	-2.53	638074.27	474805.26	32°18'16.434"N	103°53'11.196"W	0.81	
2900.00	0.330	320.060	2899.95	2.01	-1.84	-2.70	638074.10	474805.36	32°18'16.435"N	103°53'11.198"W	0.45	
3000.00	0.660	40.660	2999.95	1.34	-1.19	-2.51	638074.29	474806.01	32°18'16.441"N	103°53'11.196"W	0.69	
3100.00	0.130	52.670	3099.94	0.81	-0.68	-2.04	638074.76	474806.52	32°18'16.446"N	103°53'11.190"W	0.53	
3200.00	0.640	161.150	3199.94	1.25	-1.14	-1.77	638075.03	474806.06	32°18'16.442"N	103°53'11.187"W	0.69	
3300.00	0.930	221.710	3299.93	2.40	-2.28	-2.13	638074.67	474804.92	32°18'16.431"N	103°53'11.191"W	0.83	
3400.00	0.950	258.570	3399.92	3.26	-3.05	-3.49	638073.31	474804.15	32°18'16.423"N	103°53'11.207"W	0.59	
3500.00	0.570	295.680	3499.91	3.29	-2.99	-4.75	638072.05	474804.21	32°18'16.424"N	103°53'11.222"W	0.60	
3600.00	0.500	231.620	3599.91	3.39	-3.05	-5.54	638071.26	474804.15	32°18'16.423"N	103°53'11.231"W	0.57	
3700.00	0.220	201.580	3699.91	3.86	-3.50	-5.95	638070.85	474803.70	32°18'16.419"N	103°53'11.236"W	0.33	
3800.00	0.210	225.410	3799.91	4.18	-3.81	-6.15	638070.65	474803.39	32°18'16.416"N	103°53'11.238"W	0.09	
3900.00	0.640	225.480	3899.90	4.74	-4.33	-6.68	638070.12	474802.87	32°18'16.411"N	103°53'11.244"W	0.43	
4000.00	0.400	265.780	3999.90	5.20	-4.74	-7.43	638069.38	474802.46	32°18'16.406"N	103°53'11.253"W	0.42	
4100.00	0.280	163.440	4099.90	5.48	-5.00	-7.70	638069.10	474802.20	32°18'16.404"N	103°53'11.256"W	0.54	
4200.00	0.490	295.030	4199.90	5.55	-5.06	-8.02	638068.78	474802.14	32°18'16.403"N	103°53'11.260"W	0.71	
4300.00	0.690	254.430	4299.89	5.59	-5.04	-8.99	638067.81	474802.16	32°18'16.404"N	103°53'11.271"W	0.45	

Actual Wellpath Report

No. 104H AWB

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REFERENCE WELLPATH IDENTIFICATION

Operator	Mewbourne Oil Company	Slot	No. 104H SHL
Area	Eddy County, NM	Well	No. 104H
Field	(49er Ridge Unit) Sec 16, T-S 23-S, R 30-E	Wellbore	No. 104H AWB
Facility	49er Ridge Unit No. 104H		

WELLPATH DATA (208 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4400.00	0.470	241.240	4399.89	6.01	-5.40	-9.93	638066.87	474801.80	32°18'16.400"N	103°53'11.282"W	0.26	
4500.00	0.590	255.460	4499.88	6.39	-5.72	-10.79	638066.01	474801.48	32°18'16.397"N	103°53'11.292"W	0.18	
4600.00	1.180	252.380	4599.87	6.92	-6.16	-12.27	638064.53	474801.04	32°18'16.393"N	103°53'11.310"W	0.59	
4700.00	0.120	224.160	4699.86	7.37	-6.55	-13.32	638063.48	474800.65	32°18'16.389"N	103°53'11.322"W	1.08	
4800.00	0.630	232.510	4799.86	7.81	-6.96	-13.83	638062.97	474800.24	32°18'16.385"N	103°53'11.328"W	0.51	
4900.00	0.430	247.360	4899.86	8.34	-7.44	-14.61	638062.19	474799.76	32°18'16.380"N	103°53'11.337"W	0.24	
5000.00	0.280	237.870	4999.85	8.65	-7.71	-15.17	638061.64	474799.49	32°18'16.377"N	103°53'11.343"W	0.16	
5100.00	0.380	235.110	5099.85	9.00	-8.03	-15.64	638061.16	474799.17	32°18'16.374"N	103°53'11.349"W	0.10	
5200.00	0.430	158.370	5199.85	9.54	-8.57	-15.78	638061.02	474798.63	32°18'16.369"N	103°53'11.351"W	0.50	
5300.00	0.690	209.630	5299.85	10.42	-9.44	-15.94	638060.86	474797.76	32°18'16.360"N	103°53'11.352"W	0.54	
5400.00	0.550	166.710	5399.84	11.42	-10.43	-16.13	638060.68	474796.77	32°18'16.351"N	103°53'11.355"W	0.47	
5500.00	0.470	189.770	5499.84	12.29	-11.31	-16.08	638060.72	474795.89	32°18'16.342"N	103°53'11.354"W	0.22	
5600.00	0.850	199.360	5599.83	13.41	-12.41	-16.40	638060.40	474794.79	32°18'16.331"N	103°53'11.358"W	0.39	
5700.00	0.860	209.060	5699.82	14.80	-13.77	-17.01	638059.79	474793.43	32°18'16.318"N	103°53'11.365"W	0.14	
5800.00	0.600	214.370	5799.81	15.93	-14.85	-17.67	638059.13	474792.35	32°18'16.307"N	103°53'11.373"W	0.27	
5900.00	0.780	184.120	5899.80	17.06	-15.97	-18.01	638058.79	474791.24	32°18'16.296"N	103°53'11.377"W	0.40	
6000.00	0.960	218.700	5999.79	18.43	-17.30	-18.59	638058.21	474789.90	32°18'16.283"N	103°53'11.384"W	0.54	
6100.00	0.840	191.330	6099.78	19.84	-18.67	-19.26	638057.55	474788.53	32°18'16.269"N	103°53'11.392"W	0.44	
6200.00	0.730	192.080	6199.77	21.19	-20.01	-19.53	638057.27	474787.19	32°18'16.256"N	103°53'11.395"W	0.11	
6300.00	0.530	250.680	6299.77	22.00	-20.79	-20.10	638056.70	474786.41	32°18'16.248"N	103°53'11.402"W	0.64	
6400.00	0.560	247.980	6399.76	22.40	-21.12	-20.99	638055.81	474786.08	32°18'16.245"N	103°53'11.412"W	0.04	
6500.00	0.500	198.000	6499.76	23.03	-21.72	-21.58	638055.22	474785.48	32°18'16.239"N	103°53'11.419"W	0.45	
6600.00	0.780	237.080	6599.75	23.86	-22.51	-22.29	638054.52	474784.69	32°18'16.231"N	103°53'11.427"W	0.50	
6700.00	0.830	190.020	6699.74	24.98	-23.59	-22.98	638053.82	474783.61	32°18'16.221"N	103°53'11.435"W	0.64	
6800.00	1.200	206.270	6799.73	26.67	-25.24	-23.57	638053.23	474781.96	32°18'16.204"N	103°53'11.442"W	0.47	
6900.00	1.070	203.330	6899.71	28.51	-27.04	-24.41	638052.40	474780.16	32°18'16.187"N	103°53'11.452"W	0.14	
7000.00	1.310	204.230	6999.69	30.46	-28.94	-25.25	638051.56	474778.26	32°18'16.168"N	103°53'11.462"W	0.24	
7100.00	1.440	195.000	7099.66	32.76	-31.19	-26.04	638050.76	474776.01	32°18'16.146"N	103°53'11.471"W	0.26	
7200.00	1.730	205.140	7199.62	35.40	-33.78	-27.01	638049.80	474773.43	32°18'16.120"N	103°53'11.483"W	0.40	
7300.00	1.560	213.310	7299.58	37.98	-36.28	-28.39	638048.41	474770.92	32°18'16.095"N	103°53'11.499"W	0.29	
7400.00	1.250	208.400	7399.55	40.16	-38.38	-29.66	638047.14	474768.83	32°18'16.075"N	103°53'11.514"W	0.33	
7500.00	2.010	224.210	7499.51	42.48	-40.59	-31.40	638045.40	474766.61	32°18'16.053"N	103°53'11.534"W	0.88	
7600.00	2.020	213.290	7599.45	45.34	-43.32	-33.59	638043.21	474763.88	32°18'16.026"N	103°53'11.560"W	0.38	
7700.00	2.430	219.790	7699.37	48.58	-46.43	-35.92	638040.89	474760.78	32°18'15.995"N	103°53'11.587"W	0.48	
7800.00	1.550	221.260	7799.31	51.36	-49.07	-38.17	638038.64	474758.13	32°18'15.969"N	103°53'11.613"W	0.88	
7900.00	1.980	214.030	7899.26	53.92	-51.52	-40.02	638036.78	474755.68	32°18'15.945"N	103°53'11.635"W	0.48	
8000.00	2.810	201.590	7999.17	57.74	-55.23	-41.89	638034.91	474751.97	32°18'15.908"N	103°53'11.657"W	0.97	
8100.00	2.510	206.080	8099.07	62.10	-59.48	-43.76	638033.05	474747.73	32°18'15.866"N	103°53'11.679"W	0.37	
8200.00	2.200	212.870	8198.98	65.79	-63.06	-45.76	638031.04	474744.15	32°18'15.831"N	103°53'11.703"W	0.42	
8300.00	2.590	218.810	8298.89	69.31	-66.43	-48.22	638028.58	474740.78	32°18'15.798"N	103°53'11.731"W	0.46	
8400.00	2.990	228.400	8398.78	73.01	-69.92	-51.59	638025.22	474737.28	32°18'15.763"N	103°53'11.771"W	0.61	
8500.00	2.980	225.910	8498.64	76.78	-73.46	-55.40	638021.40	474733.74	32°18'15.728"N	103°53'11.815"W	0.13	
8600.00	2.760	229.370	8598.51	80.38	-76.84	-59.10	638017.71	474730.37	32°18'15.695"N	103°53'11.859"W	0.28	
8700.00	2.100	215.030	8698.43	83.63	-79.90	-61.98	638014.83	474727.30	32°18'15.665"N	103°53'11.892"W	0.89	
8800.00	1.440	210.160	8798.38	86.31	-82.49	-63.66	638013.14	474724.71	32°18'15.639"N	103°53'11.912"W	0.68	

Actual Wellpath Report

No. 104H AWB

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REFERENCE WELLPATH IDENTIFICATION

Operator	Mewbourne Oil Company	Slot	No. 104H SHL
Area	Eddy County, NM	Well	No. 104H
Field	(49er Ridge Unit) Sec 16, T-S 23-S, R 30-E	Wellbore	No. 104H AWB
Facility	49er Ridge Unit No. 104H		

WELLPATH DATA (208 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8900.00	1.320	241.820	8898.35	88.04	-84.12	-65.31	638011.50	474723.08	32°18'15.623"N	103°53'11.931"W	0.76	
9000.00	2.030	237.520	8998.31	89.69	-85.62	-67.82	638008.99	474721.59	32°18'15.609"N	103°53'11.961"W	0.72	
9100.00	2.530	248.430	9098.23	91.67	-87.38	-71.36	638005.44	474719.83	32°18'15.591"N	103°53'12.002"W	0.66	
9200.00	2.350	246.920	9198.14	93.53	-88.99	-75.30	638001.50	474718.21	32°18'15.576"N	103°53'12.048"W	0.19	
9300.00	2.490	229.110	9298.05	95.97	-91.22	-78.83	637997.98	474715.99	32°18'15.554"N	103°53'12.089"W	0.76	
9400.00	1.960	247.260	9397.97	98.25	-93.30	-82.05	637994.76	474713.90	32°18'15.533"N	103°53'12.127"W	0.88	
9500.00	1.080	251.060	9497.94	99.37	-94.27	-84.52	637992.29	474712.94	32°18'15.524"N	103°53'12.156"W	0.89	
9600.00	1.180	237.940	9597.92	100.33	-95.12	-86.28	637990.52	474712.08	32°18'15.515"N	103°53'12.176"W	0.28	
9700.00	1.820	252.380	9697.88	101.51	-96.15	-88.67	637988.14	474711.06	32°18'15.505"N	103°53'12.204"W	0.74	
9800.00	2.210	262.580	9797.82	102.45	-96.88	-92.09	637984.71	474710.33	32°18'15.498"N	103°53'12.244"W	0.53	
9900.00	1.750	250.420	9897.76	103.42	-97.64	-95.44	637981.36	474709.57	32°18'15.491"N	103°53'12.283"W	0.62	
9930.00	1.670	246.760	9927.75	103.80	-97.97	-96.28	637980.53	474709.24	32°18'15.488"N	103°53'12.293"W	0.45	
10061.00	3.710	252.440	10058.60	106.19	-100.00	-102.07	637974.73	474707.21	32°18'15.468"N	103°53'12.360"W	1.57	
10093.00	5.730	222.730	10090.49	107.80	-101.48	-104.14	637972.66	474705.72	32°18'15.453"N	103°53'12.385"W	9.71	
10124.00	9.820	205.780	10121.21	111.45	-105.00	-106.34	637970.46	474702.20	32°18'15.418"N	103°53'12.410"W	14.99	
10156.00	13.460	198.370	10152.54	117.58	-111.00	-108.71	637968.10	474696.21	32°18'15.359"N	103°53'12.438"W	12.27	
10188.00	16.010	194.790	10183.49	125.51	-118.80	-111.01	637965.80	474688.41	32°18'15.282"N	103°53'12.465"W	8.46	
10220.00	18.800	188.930	10214.02	134.98	-128.16	-112.93	637963.87	474679.05	32°18'15.190"N	103°53'12.488"W	10.29	
10251.00	20.790	183.750	10243.19	145.45	-138.59	-114.07	637962.74	474668.62	32°18'15.086"N	103°53'12.502"W	8.55	
10283.00	23.140	181.420	10272.87	157.42	-150.54	-114.60	637962.21	474656.67	32°18'14.968"N	103°53'12.509"W	7.83	
10315.00	27.560	178.540	10301.78	171.08	-164.24	-114.56	637962.24	474642.97	32°18'14.833"N	103°53'12.509"W	14.34	
10346.00	31.640	177.060	10328.73	186.31	-179.53	-113.96	637962.84	474627.68	32°18'14.681"N	103°53'12.503"W	13.37	
10378.00	34.680	177.090	10355.52	203.70	-197.01	-113.07	637963.74	474610.20	32°18'14.508"N	103°53'12.493"W	9.50	
10411.00	38.090	178.110	10382.08	223.17	-216.57	-112.26	637964.55	474590.65	32°18'14.315"N	103°53'12.485"W	10.49	
10443.00	40.610	178.810	10406.82	243.37	-236.85	-111.72	637965.09	474570.37	32°18'14.114"N	103°53'12.479"W	8.00	
10475.00	43.600	179.170	10430.56	264.76	-258.30	-111.34	637965.47	474548.92	32°18'13.902"N	103°53'12.476"W	9.37	
10506.00	47.190	179.990	10452.33	286.77	-280.36	-111.18	637965.62	474526.85	32°18'13.683"N	103°53'12.475"W	11.73	
10538.00	49.720	180.850	10473.55	310.68	-304.31	-111.36	637965.45	474502.91	32°18'13.446"N	103°53'12.479"W	8.16	
10570.00	49.530	181.590	10494.28	335.04	-328.68	-111.88	637964.93	474478.54	32°18'13.205"N	103°53'12.488"W	1.86	
10602.00	49.670	182.260	10515.02	359.40	-353.04	-112.70	637964.11	474454.19	32°18'12.964"N	103°53'12.496"W	1.65	
10633.00	50.840	182.100	10534.84	383.23	-376.86	-113.61	637963.20	474430.37	32°18'12.729"N	103°53'12.508"W	3.79	
10665.00	54.000	181.860	10554.35	408.57	-402.20	-114.48	637962.33	474405.03	32°18'12.478"N	103°53'12.520"W	9.89	
10697.00	56.930	181.020	10572.49	434.91	-428.55	-115.14	637961.67	474378.68	32°18'12.217"N	103°53'12.529"W	9.41	
10729.00	59.960	180.350	10589.23	462.14	-455.81	-115.46	637961.34	474351.42	32°18'11.948"N	103°53'12.534"W	9.64	
10760.00	62.440	180.130	10604.17	489.26	-482.98	-115.58	637961.23	474324.26	32°18'11.679"N	103°53'12.536"W	8.02	
10792.00	65.030	179.840	10618.33	517.90	-511.67	-115.57	637961.24	474295.57	32°18'11.395"N	103°53'12.538"W	8.13	
10824.00	67.680	179.790	10631.16	547.14	-540.98	-115.47	637961.33	474266.26	32°18'11.105"N	103°53'12.538"W	8.28	
10856.00	70.740	180.180	10642.52	577.00	-570.89	-115.47	637961.34	474236.35	32°18'10.809"N	103°53'12.539"W	9.63	
10888.00	75.530	180.880	10651.80	607.57	-601.51	-115.75	637961.06	474205.74	32°18'10.506"N	103°53'12.544"W	15.11	
10919.00	79.570	181.490	10658.48	637.81	-631.76	-116.38	637960.43	474175.48	32°18'10.206"N	103°53'12.553"W	13.17	
10951.00	81.520	182.140	10663.74	669.36	-663.31	-117.38	637959.43	474143.94	32°18'09.894"N	103°53'12.566"W	6.41	
10983.00	81.130	181.150	10668.56	700.97	-694.93	-118.29	637958.52	474112.32	32°18'09.581"N	103°53'12.578"W	3.29	
11014.00	80.070	180.560	10673.63	731.52	-725.51	-118.75	637958.06	474081.74	32°18'09.279"N	103°53'12.585"W	3.90	
11046.00	82.250	180.250	10678.54	763.09	-757.13	-118.97	637957.84	474050.13	32°18'08.966"N	103°53'12.589"W	6.88	
11078.00	87.170	179.580	10681.49	794.88	-788.98	-118.92	637957.89	474018.27	32°18'08.651"N	103°53'12.590"W	15.52	

Actual Wellpath Report

No. 104H AWB

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REFERENCE WELLPATH IDENTIFICATION

Operator	Mewbourne Oil Company	Slot	No. 104H SHL
Area	Eddy County, NM	Well	No. 104H
Field	(49er Ridge Unit) Sec 16, T-S 23-S, R 30-E	Wellbore	No. 104H AWB
Facility	49er Ridge Unit No. 104H		

WELLPATH DATA (208 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11110.00	90.620	179.640	10682.11	826.79	-820.97	-118.70	637958.11	473986.29	32°18'08.334"N	103°53'12.589"W	10.78	
11142.00	90.620	180.010	10681.76	858.72	-852.97	-118.60	637958.20	473954.29	32°18'08.018"N	103°53'12.590"W	1.16	
11237.00	90.680	181.110	10680.69	953.58	-947.96	-119.53	637957.28	473859.31	32°18'07.078"N	103°53'12.605"W	1.16	
11332.00	90.740	185.260	10679.51	1048.55	-1042.78	-124.81	637952.00	473764.49	32°18'06.140"N	103°53'12.671"W	4.37	
11427.00	90.680	184.520	10678.33	1143.51	-1137.43	-132.91	637943.90	473669.85	32°18'05.203"N	103°53'12.770"W	0.78	
11522.00	90.680	177.010	10677.20	1238.33	-1232.35	-134.17	637942.63	473574.94	32°18'04.264"N	103°53'12.789"W	7.90	
11616.00	90.710	183.230	10676.06	1332.10	-1326.29	-134.37	637942.44	473481.00	32°18'03.335"N	103°53'12.796"W	6.62	
11712.00	90.710	189.360	10674.87	1427.94	-1421.66	-144.89	637931.92	473385.64	32°18'02.391"N	103°53'12.923"W	6.38	
11807.00	90.620	189.510	10673.77	1522.44	-1515.37	-160.46	637916.35	473291.94	32°18'01.465"N	103°53'13.109"W	0.18	
11902.00	90.620	185.260	10672.74	1617.20	-1609.55	-172.67	637904.14	473197.76	32°18'00.533"N	103°53'13.256"W	4.47	
11997.00	90.180	184.430	10672.08	1712.18	-1704.21	-180.69	637896.12	473103.11	32°17'59.597"N	103°53'13.354"W	0.99	
12092.00	90.220	183.180	10671.74	1807.17	-1799.00	-187.00	637889.81	473008.33	32°17'58.659"N	103°53'13.432"W	1.32	
12188.00	90.220	183.230	10671.37	1903.17	-1894.85	-192.37	637884.45	472912.49	32°17'57.711"N	103°53'13.499"W	0.05	
12283.00	90.150	184.380	10671.07	1998.17	-1989.64	-198.67	637878.14	472817.71	32°17'56.773"N	103°53'13.577"W	1.21	
12378.00	90.000	183.740	10670.94	2093.16	-2084.40	-205.40	637871.42	472722.95	32°17'55.836"N	103°53'13.660"W	0.69	
12473.00	89.940	183.900	10670.99	2188.16	-2179.19	-211.73	637865.09	472628.17	32°17'54.898"N	103°53'13.739"W	0.18	
12569.00	89.910	183.340	10671.12	2284.16	-2274.99	-217.79	637859.03	472532.37	32°17'53.950"N	103°53'13.814"W	0.58	
12664.00	89.940	178.940	10671.24	2379.05	-2369.95	-219.68	637857.14	472437.42	32°17'53.011"N	103°53'13.841"W	4.63	
12759.00	90.030	180.290	10671.27	2473.82	-2464.95	-219.04	637857.78	472342.43	32°17'52.071"N	103°53'13.838"W	1.42	
12854.00	89.910	183.390	10671.32	2568.77	-2559.89	-222.09	637854.73	472247.49	32°17'51.132"N	103°53'13.878"W	3.27	
12949.00	90.000	184.660	10671.39	2663.76	-2654.65	-228.76	637848.06	472152.74	32°17'50.194"N	103°53'13.960"W	1.34	
13045.00	89.880	184.010	10671.49	2759.75	-2750.38	-236.01	637840.80	472057.02	32°17'49.247"N	103°53'14.049"W	0.69	
13140.00	89.940	181.750	10671.64	2854.74	-2845.25	-240.79	637836.03	471962.15	32°17'48.309"N	103°53'14.110"W	2.38	
13235.00	89.910	179.850	10671.77	2949.62	-2940.24	-242.11	637834.71	471867.17	32°17'47.369"N	103°53'14.130"W	2.00	
13330.00	89.970	178.290	10671.87	3044.32	-3035.22	-240.57	637836.25	471772.20	32°17'46.429"N	103°53'14.116"W	1.64	
13425.00	89.910	179.470	10671.97	3139.00	-3130.20	-238.71	637838.10	471677.22	32°17'45.489"N	103°53'14.099"W	1.24	
13521.00	90.000	182.140	10672.04	3234.88	-3226.18	-240.06	637836.76	471581.25	32°17'44.539"N	103°53'14.120"W	2.78	
13616.00	90.000	183.980	10672.04	3329.87	-3321.04	-245.13	637831.68	471486.39	32°17'43.601"N	103°53'14.183"W	1.94	
13711.00	89.940	183.910	10672.09	3424.87	-3415.82	-251.67	637825.15	471391.63	32°17'42.663"N	103°53'14.264"W	0.10	
13806.00	89.940	180.910	10672.19	3519.84	-3510.72	-255.66	637821.16	471296.73	32°17'41.724"N	103°53'14.315"W	3.16	
13901.00	90.030	183.100	10672.22	3614.80	-3605.66	-258.99	637817.83	471201.80	32°17'40.785"N	103°53'14.358"W	2.31	
13996.00	89.910	185.500	10672.27	3709.78	-3700.38	-266.11	637810.71	471107.08	32°17'39.848"N	103°53'14.446"W	2.53	
14091.00	90.030	186.020	10672.31	3804.71	-3794.90	-275.64	637801.18	471012.57	32°17'38.913"N	103°53'14.562"W	0.56	
14187.00	90.000	188.450	10672.29	3900.51	-3890.13	-287.73	637789.09	470917.34	32°17'37.971"N	103°53'14.707"W	2.53	
14282.00	89.970	189.230	10672.31	3995.11	-3984.00	-302.33	637774.49	470823.48	32°17'37.043"N	103°53'14.882"W	0.82	
14377.00	89.940	198.450	10672.39	4088.50	-4076.15	-325.03	637751.79	470731.34	32°17'36.132"N	103°53'15.151"W	9.71	
14472.00	89.970	194.700	10672.46	4181.05	-4167.18	-352.13	637724.70	470640.31	32°17'35.232"N	103°53'15.471"W	3.95	
14567.00	89.940	190.240	10672.54	4274.89	-4259.92	-372.64	637704.19	470547.59	32°17'34.315"N	103°53'15.714"W	4.69	
14662.00	90.000	186.690	10672.59	4369.53	-4353.87	-386.62	637690.21	470453.64	32°17'33.386"N	103°53'15.881"W	3.74	
14757.00	90.060	183.580	10672.54	4464.48	-4448.47	-395.12	637681.71	470359.04	32°17'32.451"N	103°53'15.985"W	3.27	
14853.00	89.940	179.630	10672.54	4560.40	-4544.42	-397.81	637679.02	470263.11	32°17'31.501"N	103°53'16.021"W	4.12	
14948.00	89.970	178.680	10672.61	4655.12	-4639.41	-396.41	637680.42	470168.12	32°17'30.561"N	103°53'16.009"W	1.00	
15043.00	90.000	178.010	10672.64	4749.72	-4734.37	-393.66	637683.16	470073.17	32°17'29.622"N	103°53'15.982"W	0.71	
15138.00	90.030	179.960	10672.61	4844.41	-4829.35	-391.98	637684.85	469978.20	32°17'28.682"N	103°53'15.967"W	2.05	
15233.00	89.970	180.380	10672.61	4939.24	-4924.35	-392.26	637684.57	469883.20	32°17'27.742"N	103°53'15.975"W	0.45	

Actual Wellpath Report

No. 104H AWB

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REFERENCE WELLPATH IDENTIFICATION

Operator	Mewbourne Oil Company	Slot	No. 104H SHL
Area	Eddy County, NM	Well	No. 104H
Field	(49er Ridge Unit) Sec 16, T-S 23-S, R 30-E	Wellbore	No. 104H AWB
Facility	49er Ridge Unit No. 104H		

WELLPATH DATA (208 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
15328.00	89.940	179.890	10672.69	5034.07	-5019.35	-392.49	637684.34	469788.21	32°17'26.802"N	103°53'15.982"W	0.52	
15423.00	90.000	180.450	10672.74	5128.90	-5114.34	-392.77	637684.06	469693.22	32°17'25.862"N	103°53'15.990"W	0.59	
15518.00	90.000	180.950	10672.74	5223.78	-5209.34	-393.93	637682.90	469598.23	32°17'24.922"N	103°53'16.008"W	0.53	
15613.00	89.940	180.220	10672.79	5318.65	-5304.33	-394.90	637681.93	469503.25	32°17'23.982"N	103°53'16.024"W	0.77	
15708.00	89.910	179.830	10672.91	5413.46	-5399.33	-394.94	637681.89	469408.25	32°17'23.042"N	103°53'16.029"W	0.41	
15803.00	90.000	180.090	10672.99	5508.27	-5494.33	-394.87	637681.95	469313.26	32°17'22.102"N	103°53'16.033"W	0.29	
15898.00	89.940	176.520	10673.04	5602.85	-5589.27	-392.06	637684.76	469218.32	32°17'21.162"N	103°53'16.005"W	3.76	
15993.00	89.970	182.060	10673.11	5697.55	-5684.23	-390.89	637685.94	469123.37	32°17'20.222"N	103°53'15.996"W	5.83	
16089.00	90.090	184.250	10673.06	5793.54	-5780.08	-396.17	637680.66	469027.53	32°17'19.274"N	103°53'16.062"W	2.28	
16184.00	89.940	182.580	10673.04	5888.54	-5874.91	-401.83	637675.00	468932.71	32°17'18.336"N	103°53'16.132"W	1.76	
16279.00	90.180	179.620	10672.94	5983.44	-5969.88	-403.65	637673.18	468837.75	32°17'17.396"N	103°53'16.158"W	3.13	
16374.00	90.030	177.670	10672.76	6078.08	-6064.85	-401.41	637675.42	468742.78	32°17'16.456"N	103°53'16.137"W	2.06	
16469.00	90.120	177.580	10672.64	6172.57	-6159.77	-397.47	637679.36	468647.87	32°17'15.517"N	103°53'16.095"W	0.13	
16564.00	90.000	178.260	10672.54	6267.10	-6254.70	-394.02	637682.81	468552.94	32°17'14.577"N	103°53'16.060"W	0.73	
16659.00	90.090	179.010	10672.46	6361.75	-6349.67	-391.76	637685.07	468457.98	32°17'13.638"N	103°53'16.038"W	0.80	
16754.00	90.030	179.840	10672.36	6456.49	-6444.67	-390.81	637686.02	468362.99	32°17'12.698"N	103°53'16.031"W	0.88	
16849.00	90.220	180.860	10672.16	6551.34	-6539.67	-391.39	637685.44	468268.00	32°17'11.758"N	103°53'16.043"W	1.09	
16944.00	89.690	182.870	10672.23	6646.29	-6634.61	-394.48	637682.35	468173.06	32°17'10.818"N	103°53'16.083"W	2.19	
17039.00	89.690	183.600	10672.75	6741.29	-6729.46	-399.84	637676.99	468078.22	32°17'09.880"N	103°53'16.150"W	0.77	
17134.00	89.600	184.340	10673.33	6836.28	-6824.23	-406.42	637670.41	467983.46	32°17'08.942"N	103°53'16.232"W	0.78	
17229.00	89.690	184.700	10673.92	6931.27	-6918.93	-413.90	637662.93	467888.76	32°17'08.006"N	103°53'16.323"W	0.39	
17324.00	89.940	185.610	10674.23	7026.23	-7013.54	-422.44	637654.39	467794.16	32°17'07.070"N	103°53'16.427"W	0.99	
17419.00	89.510	184.250	10674.69	7121.20	-7108.19	-430.60	637646.23	467699.52	32°17'06.133"N	103°53'16.527"W	1.50	
17514.00	89.630	185.010	10675.40	7216.18	-7202.87	-438.27	637638.56	467604.84	32°17'05.197"N	103°53'16.621"W	0.81	
17609.00	89.570	184.260	10676.06	7311.16	-7297.56	-445.95	637630.89	467510.16	32°17'04.260"N	103°53'16.715"W	0.79	
17705.00	89.660	184.520	10676.71	7407.15	-7393.28	-453.29	637623.54	467414.45	32°17'03.313"N	103°53'16.805"W	0.29	
17765.00	89.660	185.820	10677.06	7467.13	-7453.03	-458.70	637618.13	467354.70	32°17'02.722"N	103°53'16.871"W	2.17	
17790.00	89.660	185.820	10677.21	7492.11	-7477.90	-461.24	637615.60	467329.83	32°17'02.476"N	103°53'16.902"W	0.00	Prjoection to Bit

Actual Wellpath Report

No. 104H AWB

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REFERENCE WELLPATH IDENTIFICATION

Operator	Mewbourne Oil Company	Slot	No. 104H SHL
Area	Eddy County, NM	Well	No. 104H
Field	(49er Ridge Unit) Sec 16, T-S 23-S, R 30-E	Wellbore	No. 104H AWB
Facility	49er Ridge Unit No. 104H		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
49er Ridge Unit No. 104H PBHL		10673.00	-7483.09	-469.06	637607.78	467324.65	32°17'02.425"N	103°53'16.993"W	point

WELLPATH COMPOSITION - Ref Wellbore: No. 104H AWB Ref Wellpath: No. 104H AWB

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
30.50	9930.00	EMS (Standard)	VES Gyro Svys <100-9930>	No. 104H AWB
9930.00	17765.00	NaviTrak (Standard)	BHI Navitrak <9930'-17765'>	No. 104H AWB
17765.00	17790.00	Blind Drilling (std)	Projection to bit	No. 104H AWB