

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#29 WHIPSAKE 28N-22HZ (300'FSL & 2368'FEL, SEC.22)
Field: WELD COUNTY (KERR MCGEE) Well: WHIPSAKE 28N-22HZ
Facility: SEC.22-T2N-R67W Wellbore: WHIPSAKE 28N-22HZ PWB

Plot reference wellpath is WHIPSAKE 28N-22HZ (REV-A.1) PWP

True vertical depths are referenced to XTREME 6 (16KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 6 (16KB) (RKB)	North Reference: True north
XTREME 6 (16KB) (RKB) to Mean Sea Level: 5003 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#29 WHIPSAKE 28N-22HZ (300'FSL & 2368'FEL, SEC.22)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robale01 on 24/Jul/2014

Location Information

Facility Name			Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC 22-T2N-R67W			3173770.270	1290629.950	40°07'46.204"N	104°52'42.769"W
Slot	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SLOT#29 WHIPSAKE 28N-22HZ (300'FSL & 2368'FEL, SEC.22)	-4455.01	725.78	3174527.226	1286180.327	40°07'02.179"N	104°52'33.427"W
XTREME 6 (16KB) (RKB) to Mud line (At Slot: SLOT#29 WHIPSAKE 28N-22HZ (300'FSL & 2368'FEL, SEC.22))					5003ft	
Mean Sea Level to Mud line (At Slot: SLOT#29 WHIPSAKE 28N-22HZ (300'FSL & 2368'FEL, SEC.22))					0ft	
XTREME 6 (16KB) (RKB) to Mean Sea Level					5003ft	

Survey Program

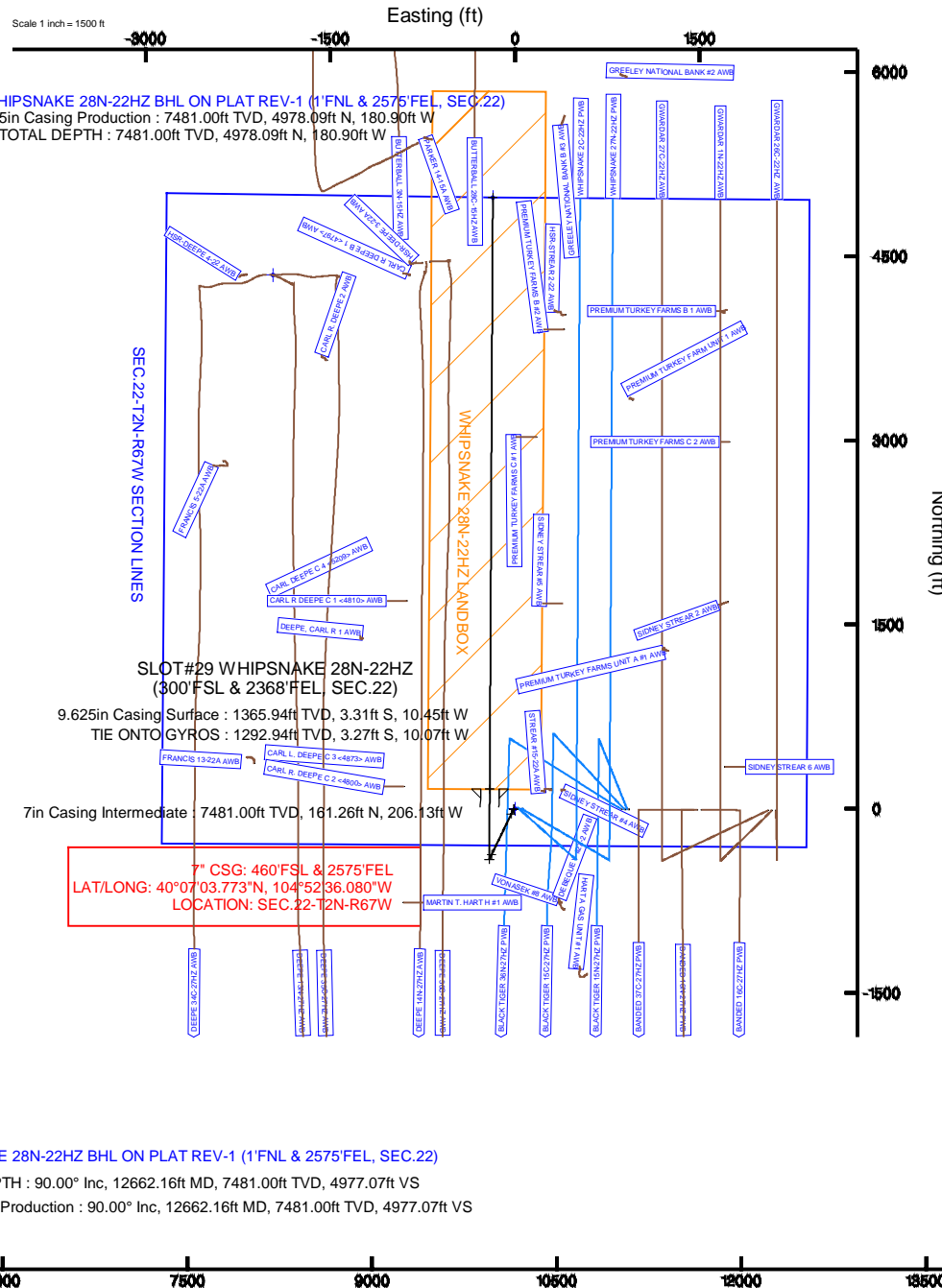
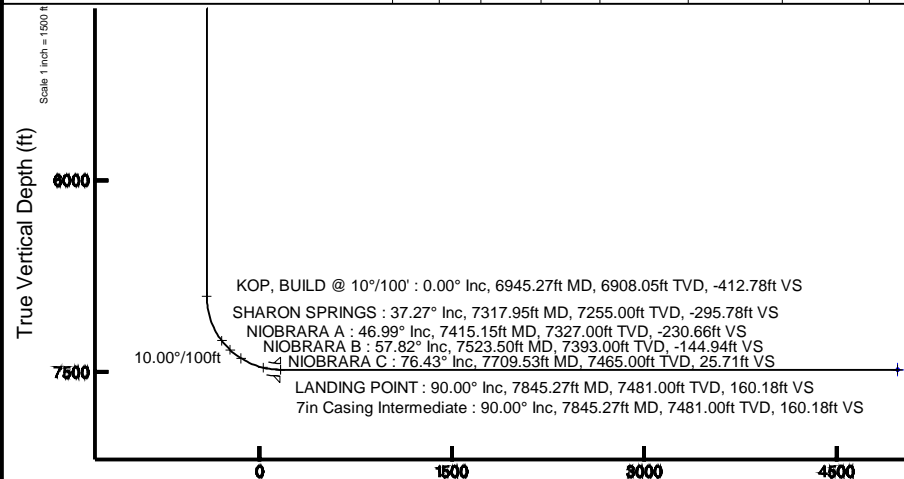
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
16.00	1293.00	Generic gyro - continuous	Generic gyro - continuous (Standard)		WHIPSAKE 28N-22HZ AWB
1293.00	7845.27	NavTrak	NavTrak (MAGCORR,IFR)		WHIPSAKE 28N-22HZ PWB
7845.27	12662.16	NavTrak	NavTrak (MAGCORR,IFR)		WHIPSAKE 28N-22HZ PWB

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE ONTO GYROS	1293.00	0.300	263.690	1292.94	-3.27	-10.07	0.24	-3.32
BEGIN NUDGE	1466.06	0.300	263.690	1466.00	-3.37	-10.97	0.00	-3.42
END NUDGE	1958.26	10.000	205.750	1955.66	-42.09	-30.86	2.00	-42.26
BEGIN DROP	4070.69	10.000	205.750	4036.00	-372.49	-190.23	0.00	-373.48
END DROP	4570.69	0.000	0.300	4533.47	-411.69	-209.13	2.00	-412.78
KOP, BUILD @ 10°/100'	6945.27	0.000	0.300	6908.05	-411.69	-209.13	0.00	-412.78
LANDING POINT	7845.27	90.000	0.300	7481.00	161.26	-206.13	10.00	160.18
TOTAL DEPTH	12662.16	90.000	0.300	7481.00	4978.09	-180.90	0.00	4977.07

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
SEC 22-T2N-R67W SECTION LINES			-29.00	4346.82	-1966.14	3172530.63	1290513.02	40°07'45.134"N
WHIPSAKE 28N-22HZ BHL ON PLAT REV-1 (1'FNL & 2575'FEL, SEC.22)	12662.16	7481.00	4978.09	-180.90	3174311.30	1291156.81	40°07'51.373"N	104°52'35.756"W
WHIPSAKE 28N-22HZ LONBOX			7481.00	0.00	3174527.23	1286180.33	40°07'02.179"N	104°52'33.427"W



Planned Wellpath Report

WHIPSNAKE 28N-22HZ (REV-A.1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#29 WHIPSNAKE 28N-22HZ (300'FSL & 2368'FEL, SEC.22)
Area	COLORADO	Well	WHIPSNAKE 28N-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSNAKE 28N-22HZ PWB
Facility	SEC.22-T2N-R67W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Robiale01
Scale	0.99996	Report Generated	24/Jul/2014 at 16:19
Convergence at slot	n/a	Database/Source file	WellArchitectDB/WHIPSNAKE_28N-22HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4455.01	725.78	3174527.23	1286180.33	40°07'02.179"N	104°52'33.427"W
Facility Reference Pt			3173770.27	1290629.95	40°07'46.204"N	104°52'42.769"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	XTREME 6 (16'KB) (RKB) to Facility Vertical Datum	5003.00ft
Horizontal Reference Pt	Slot	XTREME 6 (16'KB) (RKB) to Mean Sea Level	5003.00ft
Vertical Reference Pt	XTREME 6 (16'KB) (RKB)	XTREME 6 (16'KB) (RKB) to Mud Line at Slot (SLOT#29 WHIPSNAKE 28N-22HZ (300'FSL & 2368'FEL, SEC.22))	5003.00ft
MD Reference Pt	XTREME 6 (16'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.30°

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#29 WHIPSNAKE 28N-22HZ (300'FSL & 2368'FEL, SEC.22)
Area	COLORADO	Well	WHIPSNAKE 28N-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSNAKE 28N-22HZ PWB
Facility	SEC.22-T2N-R67W		

WELLPATH DATA (142 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	237.740	0.00	0.00	0.00	0.00	40°07'02.179"N	104°52'33.427"W	0.00	
16.00	0.000	237.740	16.00	0.00	0.00	0.00	40°07'02.179"N	104°52'33.427"W	0.00	
116.00	0.780	237.740	116.00	-0.37	-0.36	-0.58	40°07'02.175"N	104°52'33.434"W	0.78	
216.00	0.650	232.140	215.99	-1.08	-1.07	-1.60	40°07'02.168"N	104°52'33.448"W	0.15	
316.00	0.510	230.550	315.98	-1.72	-1.71	-2.39	40°07'02.162"N	104°52'33.458"W	0.14	
416.00	0.210	265.510	415.98	-2.02	-2.00	-2.92	40°07'02.159"N	104°52'33.465"W	0.36	
516.00	0.360	325.560	515.98	-1.78	-1.76	-3.28	40°07'02.162"N	104°52'33.469"W	0.31	
616.00	0.490	295.650	615.98	-1.33	-1.31	-3.84	40°07'02.166"N	104°52'33.476"W	0.25	
716.00	0.670	277.760	715.97	-1.07	-1.05	-4.81	40°07'02.169"N	104°52'33.489"W	0.25	
816.00	0.760	255.550	815.97	-1.17	-1.14	-6.03	40°07'02.168"N	104°52'33.505"W	0.29	
916.00	0.680	249.330	915.96	-1.55	-1.51	-7.22	40°07'02.164"N	104°52'33.520"W	0.11	
1016.00	0.620	232.670	1015.95	-2.09	-2.05	-8.21	40°07'02.159"N	104°52'33.533"W	0.20	
1116.00	0.500	231.670	1115.95	-2.69	-2.65	-8.98	40°07'02.153"N	104°52'33.543"W	0.12	
1216.00	0.410	238.980	1215.94	-3.15	-3.10	-9.63	40°07'02.148"N	104°52'33.551"W	0.11	
1221.06†	0.401	240.157	1221.00	-3.17	-3.12	-9.66	40°07'02.148"N	104°52'33.551"W	0.24	FOX HILLS MARKER
1293.00	0.300	263.690	1292.94	-3.32	-3.27	-10.07	40°07'02.147"N	104°52'33.557"W	0.24	TIE ONTO GYROS
1393.00†	0.300	263.690	1392.94	-3.38	-3.32	-10.59	40°07'02.146"N	104°52'33.563"W	0.00	
1466.06	0.300	263.690	1466.00	-3.42	-3.37	-10.97	40°07'02.146"N	104°52'33.568"W	0.00	BEGIN NUDGE
1493.00†	0.738	224.763	1492.94	-3.56	-3.50	-11.16	40°07'02.144"N	104°52'33.571"W	2.00	
1593.00†	2.704	209.762	1592.89	-6.07	-6.00	-12.78	40°07'02.120"N	104°52'33.592"W	2.00	
1693.00†	4.699	207.429	1692.68	-11.77	-11.69	-15.84	40°07'02.064"N	104°52'33.631"W	2.00	
1793.00†	6.696	206.485	1792.18	-20.65	-20.54	-20.33	40°07'01.976"N	104°52'33.689"W	2.00	
1893.00†	8.695	205.974	1891.27	-32.69	-32.56	-26.24	40°07'01.857"N	104°52'33.765"W	2.00	
1958.26	10.000	205.750	1955.66	-42.26	-42.09	-30.86	40°07'01.763"N	104°52'33.824"W	2.00	END NUDGE
1993.00†	10.000	205.750	1989.87	-47.70	-47.53	-33.48	40°07'01.709"N	104°52'33.858"W	0.00	
2093.00†	10.000	205.750	2088.36	-63.38	-63.17	-41.03	40°07'01.555"N	104°52'33.955"W	0.00	
2193.00†	10.000	205.750	2186.84	-79.06	-78.81	-48.57	40°07'01.400"N	104°52'34.052"W	0.00	
2293.00†	10.000	205.750	2285.32	-94.74	-94.45	-56.12	40°07'01.246"N	104°52'34.149"W	0.00	
2393.00†	10.000	205.750	2383.80	-110.42	-110.09	-63.66	40°07'01.091"N	104°52'34.246"W	0.00	
2493.00†	10.000	205.750	2482.28	-126.10	-125.73	-71.20	40°07'00.937"N	104°52'34.344"W	0.00	
2593.00†	10.000	205.750	2580.76	-141.78	-141.37	-78.75	40°07'00.782"N	104°52'34.441"W	0.00	
2693.00†	10.000	205.750	2679.24	-157.46	-157.01	-86.29	40°07'00.627"N	104°52'34.538"W	0.00	
2793.00†	10.000	205.750	2777.72	-173.14	-172.65	-93.84	40°07'00.473"N	104°52'34.635"W	0.00	
2893.00†	10.000	205.750	2876.20	-188.82	-188.29	-101.38	40°07'00.318"N	104°52'34.732"W	0.00	
2993.00†	10.000	205.750	2974.68	-204.50	-203.93	-108.93	40°07'00.164"N	104°52'34.829"W	0.00	
3093.00†	10.000	205.750	3073.16	-220.18	-219.57	-116.47	40°07'00.009"N	104°52'34.926"W	0.00	
3193.00†	10.000	205.750	3171.64	-235.86	-235.21	-124.01	40°06'59.855"N	104°52'35.023"W	0.00	
3293.00†	10.000	205.750	3270.12	-251.54	-250.85	-131.56	40°06'59.700"N	104°52'35.120"W	0.00	
3393.00†	10.000	205.750	3368.61	-267.22	-266.49	-139.10	40°06'59.545"N	104°52'35.217"W	0.00	
3493.00†	10.000	205.750	3467.09	-282.90	-282.13	-146.65	40°06'59.391"N	104°52'35.315"W	0.00	
3593.00†	10.000	205.750	3565.57	-298.58	-297.78	-154.19	40°06'59.236"N	104°52'35.412"W	0.00	
3693.00†	10.000	205.750	3664.05	-314.26	-313.42	-161.73	40°06'59.082"N	104°52'35.509"W	0.00	
3793.00†	10.000	205.750	3762.53	-329.94	-329.06	-169.28	40°06'58.927"N	104°52'35.606"W	0.00	
3893.00†	10.000	205.750	3861.01	-345.62	-344.70	-176.82	40°06'58.773"N	104°52'35.703"W	0.00	
3993.00†	10.000	205.750	3959.49	-361.30	-360.34	-184.37	40°06'58.618"N	104°52'35.800"W	0.00	

REFERENCE WELLPATH IDENTIFICATION

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Area	COLORADO	Well	WHIPSAKE 28N-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSAKE 28N-22HZ PWB
Facility	SEC.22-T2N-R67W		

WELLPATH DATA (142 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4070.69	10.000	205.750	4036.00	-373.48	-372.49	-190.23	40°06'58.498"N	104°52'35.876"W	0.00	BEGIN DROP
4093.00†	9.554	205.750	4057.99	-376.90	-375.90	-191.87	40°06'58.464"N	104°52'35.897"W	2.00	
4168.91†	8.036	205.750	4133.00	-387.38	-386.35	-196.91	40°06'58.361"N	104°52'35.962"W	2.00	PARKMAN
4193.00†	7.554	205.750	4156.87	-390.33	-389.30	-198.33	40°06'58.332"N	104°52'35.980"W	2.00	
4293.00†	5.554	205.750	4256.21	-400.64	-399.58	-203.29	40°06'58.230"N	104°52'36.044"W	2.00	
4393.00†	3.554	205.750	4355.89	-407.80	-406.73	-206.74	40°06'58.160"N	104°52'36.088"W	2.00	
4493.00†	1.554	205.750	4455.78	-411.83	-410.74	-208.68	40°06'58.120"N	104°52'36.113"W	2.00	
4542.22†	0.569	205.750	4505.00	-412.65	-411.56	-209.07	40°06'58.112"N	104°52'36.118"W	2.00	SUSSEX
4570.69	0.000	0.300	4533.47	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	2.00	END DROP
4593.00†	0.000	0.300	4555.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
4693.00†	0.000	0.300	4655.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
4793.00†	0.000	0.300	4755.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
4893.00†	0.000	0.300	4855.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
4993.00†	0.000	0.300	4955.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
5093.00†	0.000	0.300	5055.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
5193.00†	0.000	0.300	5155.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
5293.00†	0.000	0.300	5255.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
5393.00†	0.000	0.300	5355.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
5493.00†	0.000	0.300	5455.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
5593.00†	0.000	0.300	5555.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
5693.00†	0.000	0.300	5655.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
5793.00†	0.000	0.300	5755.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
5893.00†	0.000	0.300	5855.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
5993.00†	0.000	0.300	5955.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
6093.00†	0.000	0.300	6055.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
6193.00†	0.000	0.300	6155.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
6293.00†	0.000	0.300	6255.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
6393.00†	0.000	0.300	6355.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
6493.00†	0.000	0.300	6455.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
6593.00†	0.000	0.300	6555.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
6693.00†	0.000	0.300	6655.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
6793.00†	0.000	0.300	6755.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
6893.00†	0.000	0.300	6855.78	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	
6945.27	0.000	0.300	6908.05	-412.78	-411.69	-209.13	40°06'58.111"N	104°52'36.119"W	0.00	KOP, BUILD @ 10°/100'
6993.00†	4.773	0.300	6955.72	-410.79	-409.70	-209.12	40°06'58.130"N	104°52'36.119"W	10.00	
7093.00†	14.773	0.300	7054.14	-393.84	-392.75	-209.04	40°06'58.298"N	104°52'36.118"W	10.00	
7193.00†	24.773	0.300	7148.13	-360.05	-358.96	-208.86	40°06'58.632"N	104°52'36.115"W	10.00	
7293.00†	34.773	0.300	7234.82	-310.46	-309.37	-208.60	40°06'59.122"N	104°52'36.112"W	10.00	
7317.95†	37.268	0.300	7255.00	-295.78	-294.70	-208.52	40°06'59.267"N	104°52'36.111"W	10.00	SHARON SPRINGS
7393.00†	44.773	0.300	7311.58	-246.56	-245.48	-208.26	40°06'59.753"N	104°52'36.108"W	10.00	
7415.15†	46.988	0.300	7327.00	-230.66	-229.58	-208.18	40°06'59.910"N	104°52'36.107"W	10.00	NIOBRARA A
7493.00†	54.773	0.300	7376.08	-170.31	-169.23	-207.86	40°07'00.507"N	104°52'36.103"W	10.00	
7523.50†	57.823	0.300	7393.00	-144.94	-143.86	-207.73	40°07'00.757"N	104°52'36.101"W	10.00	NIOBRARA B
7593.00†	64.773	0.300	7426.36	-84.02	-82.93	-207.41	40°07'01.359"N	104°52'36.097"W	10.00	
7693.00†	74.773	0.300	7460.89	9.70	10.78	-206.92	40°07'02.286"N	104°52'36.090"W	10.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#29 WHIPSAKE 28N-22HZ (300'FSL & 2368'FEL, SEC.22)
Area	COLORADO	Well	WHIPSAKE 28N-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSAKE 28N-22HZ PWB
Facility	SEC.22-T2N-R67W		

WELLPATH DATA (142 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7709.53†	76.426	0.300	7465.00	25.71	26.79	-206.84	40°07'02.444"N	104°52'36.089"W	10.00	NIOBRARA C
7793.00†	84.773	0.300	7478.62	107.98	109.06	-206.40	40°07'03.257"N	104°52'36.084"W	10.00	
7845.27	90.000	0.300	7481.00	160.18	161.26	-206.13	40°07'03.773"N	104°52'36.080"W	10.00	LANDING POINT
7893.00†	90.000	0.300	7481.00	207.91	208.99	-205.88	40°07'04.244"N	104°52'36.077"W	0.00	
7993.00†	90.000	0.300	7481.00	307.91	308.99	-205.36	40°07'05.232"N	104°52'36.070"W	0.00	
8093.00†	90.000	0.300	7481.00	407.91	408.99	-204.83	40°07'06.221"N	104°52'36.064"W	0.00	
8193.00†	90.000	0.300	7481.00	507.91	508.99	-204.31	40°07'07.209"N	104°52'36.057"W	0.00	
8293.00†	90.000	0.300	7481.00	607.91	608.98	-203.78	40°07'08.197"N	104°52'36.050"W	0.00	
8393.00†	90.000	0.300	7481.00	707.91	708.98	-203.26	40°07'09.185"N	104°52'36.043"W	0.00	
8493.00†	90.000	0.300	7481.00	807.91	808.98	-202.74	40°07'10.173"N	104°52'36.037"W	0.00	
8593.00†	90.000	0.300	7481.00	907.91	908.98	-202.21	40°07'11.162"N	104°52'36.030"W	0.00	
8693.00†	90.000	0.300	7481.00	1007.91	1008.98	-201.69	40°07'12.150"N	104°52'36.023"W	0.00	
8793.00†	90.000	0.300	7481.00	1107.91	1108.98	-201.16	40°07'13.138"N	104°52'36.016"W	0.00	
8893.00†	90.000	0.300	7481.00	1207.91	1208.98	-200.64	40°07'14.126"N	104°52'36.010"W	0.00	
8993.00†	90.000	0.300	7481.00	1307.91	1308.98	-200.11	40°07'15.114"N	104°52'36.003"W	0.00	
9093.00†	90.000	0.300	7481.00	1407.91	1408.97	-199.59	40°07'16.103"N	104°52'35.996"W	0.00	
9193.00†	90.000	0.300	7481.00	1507.91	1508.97	-199.07	40°07'17.091"N	104°52'35.989"W	0.00	
9293.00†	90.000	0.300	7481.00	1607.91	1608.97	-198.54	40°07'18.079"N	104°52'35.983"W	0.00	
9393.00†	90.000	0.300	7481.00	1707.91	1708.97	-198.02	40°07'19.067"N	104°52'35.976"W	0.00	
9493.00†	90.000	0.300	7481.00	1807.91	1808.97	-197.50	40°07'20.055"N	104°52'35.969"W	0.00	
9593.00†	90.000	0.300	7481.00	1907.91	1908.97	-196.97	40°07'21.044"N	104°52'35.963"W	0.00	
9693.00†	90.000	0.300	7481.00	2007.91	2008.97	-196.45	40°07'22.032"N	104°52'35.956"W	0.00	
9793.00†	90.000	0.300	7481.00	2107.91	2108.96	-195.92	40°07'23.020"N	104°52'35.949"W	0.00	
9893.00†	90.000	0.300	7481.00	2207.91	2208.96	-195.40	40°07'24.008"N	104°52'35.942"W	0.00	
9993.00†	90.000	0.300	7481.00	2307.91	2308.96	-194.88	40°07'24.996"N	104°52'35.936"W	0.00	
10093.00†	90.000	0.300	7481.00	2407.91	2408.96	-194.35	40°07'25.985"N	104°52'35.929"W	0.00	
10193.00†	90.000	0.300	7481.00	2507.91	2508.96	-193.83	40°07'26.973"N	104°52'35.922"W	0.00	
10293.00†	90.000	0.300	7481.00	2607.91	2608.96	-193.30	40°07'27.961"N	104°52'35.915"W	0.00	
10393.00†	90.000	0.300	7481.00	2707.91	2708.96	-192.78	40°07'28.949"N	104°52'35.909"W	0.00	
10493.00†	90.000	0.300	7481.00	2807.91	2808.95	-192.26	40°07'29.937"N	104°52'35.902"W	0.00	
10593.00†	90.000	0.300	7481.00	2907.91	2908.95	-191.73	40°07'30.926"N	104°52'35.895"W	0.00	
10693.00†	90.000	0.300	7481.00	3007.91	3008.95	-191.21	40°07'31.914"N	104°52'35.888"W	0.00	
10793.00†	90.000	0.300	7481.00	3107.91	3108.95	-190.69	40°07'32.902"N	104°52'35.882"W	0.00	
10893.00†	90.000	0.300	7481.00	3207.91	3208.95	-190.16	40°07'33.890"N	104°52'35.875"W	0.00	
10993.00†	90.000	0.300	7481.00	3307.91	3308.95	-189.64	40°07'34.878"N	104°52'35.868"W	0.00	
11093.00†	90.000	0.300	7481.00	3407.91	3408.95	-189.12	40°07'35.867"N	104°52'35.862"W	0.00	
11193.00†	90.000	0.300	7481.00	3507.91	3508.95	-188.59	40°07'36.855"N	104°52'35.855"W	0.00	
11293.00†	90.000	0.300	7481.00	3607.91	3608.94	-188.07	40°07'37.843"N	104°52'35.848"W	0.00	
11393.00†	90.000	0.300	7481.00	3707.91	3708.94	-187.55	40°07'38.831"N	104°52'35.841"W	0.00	
11493.00†	90.000	0.300	7481.00	3807.91	3808.94	-187.02	40°07'39.819"N	104°52'35.835"W	0.00	
11593.00†	90.000	0.300	7481.00	3907.91	3908.94	-186.50	40°07'40.808"N	104°52'35.828"W	0.00	
11693.00†	90.000	0.300	7481.00	4007.91	4008.94	-185.97	40°07'41.796"N	104°52'35.821"W	0.00	
11793.00†	90.000	0.300	7481.00	4107.91	4108.94	-185.45	40°07'42.784"N	104°52'35.814"W	0.00	
11893.00†	90.000	0.300	7481.00	4207.91	4208.94	-184.93	40°07'43.772"N	104°52'35.808"W	0.00	
11993.00†	90.000	0.300	7481.00	4307.91	4308.93	-184.40	40°07'44.760"N	104°52'35.801"W	0.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#29 WHIPSNAKE 28N-22HZ (300'FSL & 2368'FEL, SEC.22)
Area	COLORADO	Well	WHIPSNAKE 28N-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSNAKE 28N-22HZ PWB
Facility	SEC.22-T2N-R67W		

WELLPATH DATA (142 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12093.00†	90.000	0.300	7481.00	4407.91	4408.93	-183.88	40°07'45.749"N	104°52'35.794"W	0.00	
12193.00†	90.000	0.300	7481.00	4507.91	4508.93	-183.36	40°07'46.737"N	104°52'35.788"W	0.00	
12293.00†	90.000	0.300	7481.00	4607.91	4608.93	-182.83	40°07'47.725"N	104°52'35.781"W	0.00	
12393.00†	90.000	0.300	7481.00	4707.91	4708.93	-182.31	40°07'48.713"N	104°52'35.774"W	0.00	
12493.00†	90.000	0.300	7481.00	4807.91	4808.93	-181.79	40°07'49.701"N	104°52'35.767"W	0.00	
12593.00†	90.000	0.300	7481.00	4907.91	4908.93	-181.27	40°07'50.690"N	104°52'35.761"W	0.00	
12662.16	90.000	0.300	7481.00 ¹	4977.07	4978.09	-180.90	40°07'51.373"N	104°52'35.756"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: WHIPSNAKE 28N-22HZ PWB Ref Wellpath: WHIPSNAKE 28N-22HZ (REV-A.1) PWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
13.5in Open Hole	16.00	1376.00	1360.00	16.00	1375.94	0.00	0.00	-3.31	-10.50
9.625in Casing Surface	16.00	1366.00	1350.00	16.00	1365.94	0.00	0.00	-3.31	-10.45
8.75in Open Hole	1376.00	7845.27	6469.27	1375.94	7481.00	-3.31	-10.50	161.26	-206.13
7in Casing Intermediate	16.00	7845.27	7829.27	16.00	7481.00	0.00	0.00	161.26	-206.13
6.125in Open Hole	7845.27	12662.16	4816.89	7481.00	7481.00	161.26	-206.13	4978.09	-180.90
4.5in Casing Production	16.00	12662.16	12646.16	16.00	7481.00	0.00	0.00	4978.09	-180.90

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.22-T2N-R67W SECTION LINES		-29.00	4346.82	-1966.14	3172530.63	1290513.02	40°07'45.134"N	104°52'58.739"W	polygon
1) WHIPSNAKE 28N-22HZ BHL ON PLAT REV-1 (1'FNL & 2575'FEL, SEC.22)	12662.16	7481.00	4978.09	-180.90	3174311.30	1291156.81	40°07'51.373"N	104°52'35.756"W	point
WHIPSNAKE 28N-22HZ LANDBOX		7481.00	0.00	0.00	3174527.23	1286180.33	40°07'02.179"N	104°52'33.427"W	polygon

SURVEY PROGRAM - Ref Wellbore: WHIPSNAKE 28N-22HZ PWB Ref Wellpath: WHIPSNAKE 28N-22HZ (REV-A.1) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	1293.00	Generic gyro - continuous (Standard)		WHIPSNAKE 28N-22HZ AWB
1293.00	7845.27	NaviTrak (MAGCORR,IFR)		WHIPSNAKE 28N-22HZ PWB
7845.27	12662.16	NaviTrak (MAGCORR,IFR)		WHIPSNAKE 28N-22HZ PWB

Planned Wellpath Report

WHIPSNAKE 28N-22HZ (REV-A.1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#29 WHIPSNAKE 28N-22HZ (300'FSL & 2368'FEL, SEC.22)
Area	COLORADO	Well	WHIPSNAKE 28N-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSNAKE 28N-22HZ PWB
Facility	SEC.22-T2N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1221.06	0.401	240.157	1221.00	FOX HILLS MARKER
4168.91	8.036	205.750	4133.00	PARKMAN
4542.22	0.569	205.750	4505.00	SUSSEX
7317.95	37.268	0.300	7255.00	SHARON SPRINGS
7415.15	46.988	0.300	7327.00	NIOBRARA A
7523.50	57.823	0.300	7393.00	NIOBRARA B
7709.53	76.426	0.300	7465.00	NIOBRARA C

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1293.00	0.300	263.690	1292.94	TIE ONTO GYROS
1466.06	0.300	263.690	1466.00	BEGIN NUDGE
1958.26	10.000	205.750	1955.66	END NUDGE
4070.69	10.000	205.750	4036.00	BEGIN DROP
4570.69	0.000	0.300	4533.47	END DROP
6945.27	0.000	0.300	6908.05	KOP, BUILD @ 10°/100'
7845.27	90.000	0.300	7481.00	LANDING POINT
12662.16	90.000	0.300	7481.00	TOTAL DEPTH