

KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#28 WHIPSAKE 2C-22HZ (300'FSL & 2338'FEL, SEC.22)
Field: WELD COUNTY (KERR MCGEE) Well: WHIPSAKE 2C-22HZ
Facility: SEC.22-T2N-R67W Wellbore: WHIPSAKE 2C-22HZ PWB

Plot reference wellpath is WHIPSAKE 2C-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#28 WHIPSAKE 2C-22HZ (300'FSL & 2338'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#28 WHIPSAKE 2C-22HZ (300'FSL & 2338'FEL, SEC.22)	-4455.01	755.70	3174557.134	1286180.538	40°07'02.179"N	104°52'33.042"W	
XTREME 6 (16'KB) (RKB) to Mud line (N Slot: SLOT#28 WHIPSAKE 2C-22HZ (300'FSL & 2338'FEL, SEC.22))						5003ft	
Mean Sea Level to Mud line (N Slot: SLOT#28 WHIPSAKE 2C-22HZ (300'FSL & 2338'FEL, SEC.22))						0ft	
XTREME 6 (16'KB) (RKB) to Mean Sea Level						5003ft	

Survey Program

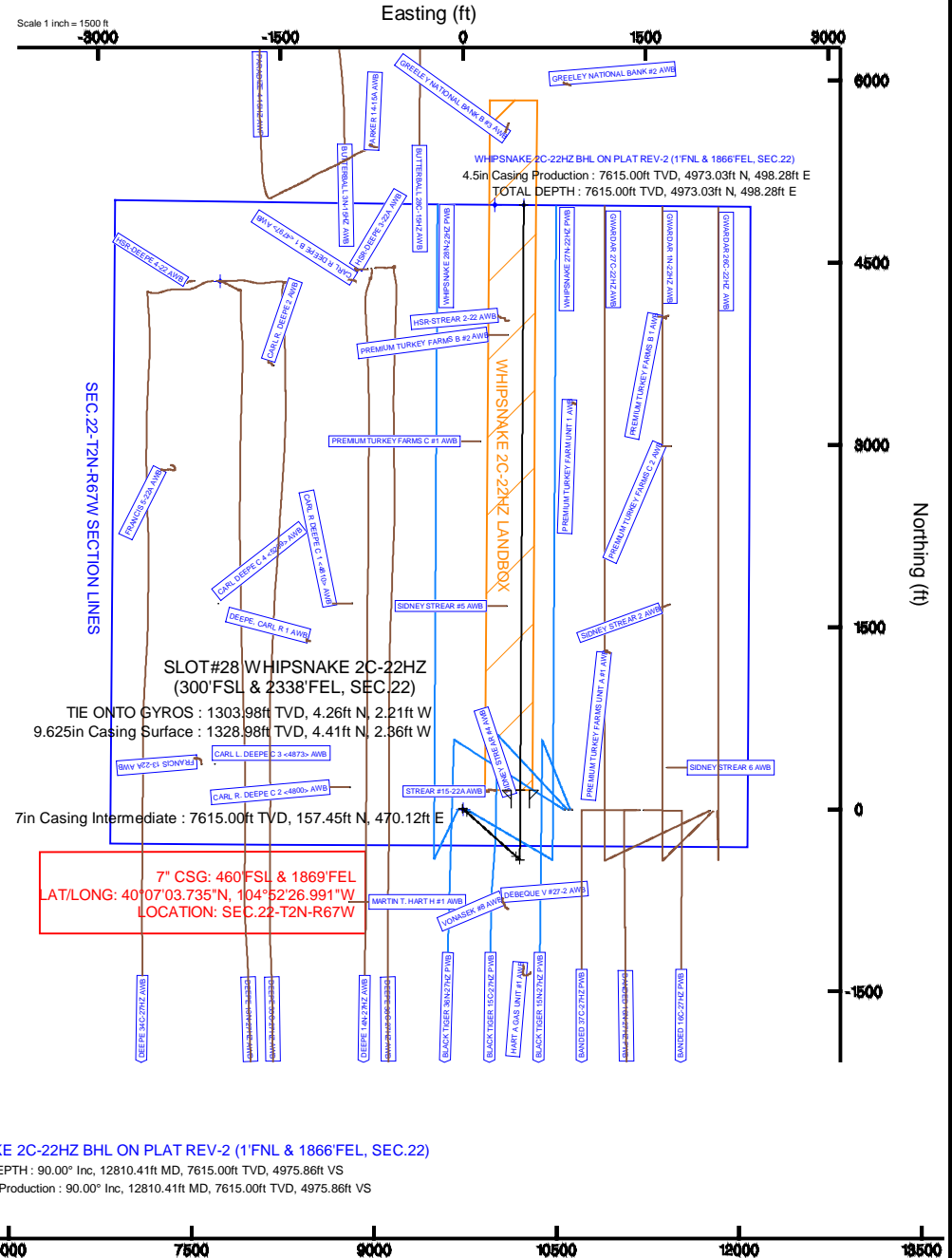
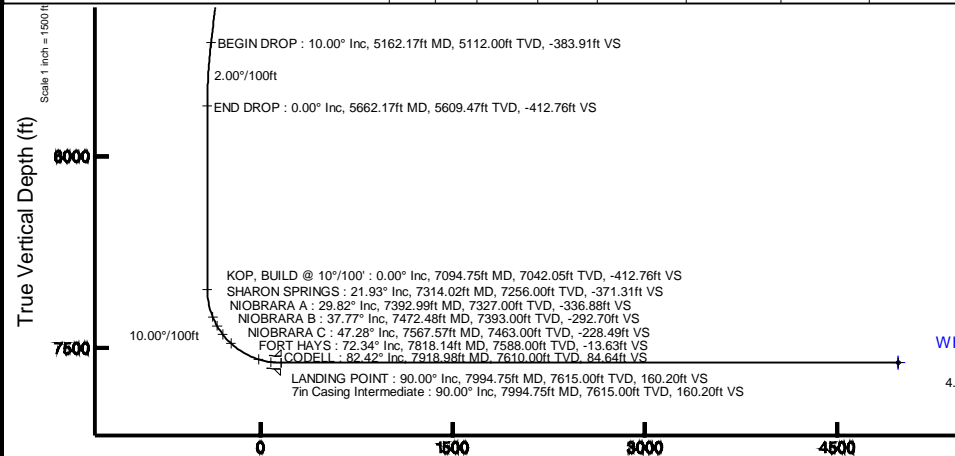
Start MD (ft)	End MD (ft)	Tool	Model	Log Name/Comment	Wellbore
16.00	1304.00	Generic gyro - continuous	Generic gyro - continuous (Standard)		WHIPSAKE 2C-22HZ AWB
1304.00	7994.75	NavTrak	NavTrak (MAGCORR,IFR)		WHIPSAKE 2C-22HZ PWB
7994.75	12812.21	NavTrak	NavTrak (MAGCORR,IFR)		WHIPSAKE 2C-22HZ PWB

Well Profile Data

Design Comment	MD (ft)	Inc (")	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
TIE ONTO GYROS	1304.00	0.490	315.000	1303.98	4.26	-2.21	0.15	4.25
BEGIN NUDGE	1504.03	0.490	315.000	1504.00	5.47	-3.42	0.00	5.45
END NUDGE	2028.49	10.000	131.850	2025.93	-23.41	29.01	2.00	-23.24
BEGIN DROP	5162.17	10.000	131.850	5112.00	-386.46	434.35	0.00	-383.91
END DROP	5662.17	0.000	0.335	5609.47	-415.50	466.77	2.00	-412.76
KOP, BUILD @ 10°/100'	7094.75	0.000	0.335	7042.05	-415.50	466.77	0.00	-412.76
LANDING POINT	7994.75	90.000	0.335	7615.00	157.45	470.12	10.00	160.20
TOTAL DEPTH	12810.41	90.000	0.335	7615.00	4973.03	498.28	0.00	4975.86

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	-1996.05	3172530.63	1290513.02	40°07'45.134"N
WHIPSAKE 2C-22HZ BHL ON PLAT REV-1 (1'FNL & 2102'FEL, SEC.22)			7613.00	4974.83	262.29	3174784.39	1291156.88	40°07'51.341"N
WHIPSAKE 2C-22HZ BHL ON PLAT REV-2 (1'FNL & 1866'FEL, SEC.22)	12810.41	7615.00	4973.03	498.28	3175020.38	1291156.74	40°07'51.323"N	104°52'28.627"W
WHIPSAKE 2C-22HZ LANDBOX			7615.00	0.00	0.00	3174557.13	1286180.54	40°07'02.179"N



WHIPSAKE 2C-22HZ BHL ON PLAT REV-2 (1'FNL & 1866'FEL, SEC.22)

TOTAL DEPTH : 90.00° Inc, 12810.41ft MD, 7615.00ft TVD, 4975.86ft VS
4.5in Casing Production : 90.00° Inc, 12810.41ft MD, 7615.00ft TVD, 4975.86ft VS

Vertical Section (ft)
Azimuth 0.34° with reference 0.00 N, 0.00 E

Scale 1 inch = 1500 ft

Planned Wellpath Report

WHIPSNAKE 2C-22HZ (REV-A.1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 WHIPSNAKE 2C-22HZ (300'FSL & 2338'FEL, SEC.22)
Area	COLORADO	Well	WHIPSNAKE 2C-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSNAKE 2C-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 15:55
Convergence at slot	n/a	Database/Source file	WellArchitectDB/WHIPSNAKE_2C-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	755.70	3174557.13	1286180.54	40°07'02.179"N	104°52'33.042"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#28 WHIPSNAKE 2C-22HZ (300'FSL & 2338'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	0.34°

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 WHIPSNAKE 2C-22HZ (300'FSL & 2338'FEL, SEC.22)
Area	COLORADO	Well	WHIPSNAKE 2C-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSNAKE 2C-22HZ PWB
Facility	SEC.22-T2N-R67W		

WELLPATH DATA (146 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	266.300	0.00	0.00	0.00	0.00	40°07'02.179"N	104°52'33.042"W	0.00	
16.00	0.000	266.300	16.00	0.00	0.00	0.00	40°07'02.179"N	104°52'33.042"W	0.00	
116.00	0.240	266.300	116.00	-0.01	-0.01	-0.21	40°07'02.179"N	104°52'33.045"W	0.24	
216.00	0.210	265.880	216.00	-0.04	-0.04	-0.60	40°07'02.179"N	104°52'33.050"W	0.03	
316.00	0.200	182.300	316.00	-0.23	-0.23	-0.79	40°07'02.177"N	104°52'33.052"W	0.27	
416.00	0.090	353.650	416.00	-0.33	-0.32	-0.81	40°07'02.176"N	104°52'33.052"W	0.29	
516.00	0.070	328.270	516.00	-0.20	-0.19	-0.85	40°07'02.177"N	104°52'33.053"W	0.04	
616.00	0.260	20.390	616.00	0.07	0.07	-0.80	40°07'02.180"N	104°52'33.052"W	0.22	
716.00	0.200	343.700	716.00	0.45	0.45	-0.77	40°07'02.183"N	104°52'33.052"W	0.16	
816.00	0.310	354.220	816.00	0.88	0.89	-0.85	40°07'02.188"N	104°52'33.053"W	0.12	
916.00	0.300	347.480	915.99	1.41	1.41	-0.93	40°07'02.193"N	104°52'33.054"W	0.04	
1016.00	0.500	341.260	1015.99	2.07	2.08	-1.13	40°07'02.200"N	104°52'33.057"W	0.20	
1116.00	0.410	355.680	1115.99	2.84	2.85	-1.29	40°07'02.207"N	104°52'33.059"W	0.14	
1216.00	0.610	321.660	1215.99	3.62	3.63	-1.65	40°07'02.215"N	104°52'33.063"W	0.35	
1221.02†	0.603	321.352	1221.00	3.66	3.67	-1.68	40°07'02.215"N	104°52'33.064"W	0.15	FOX HILLS MARKER
1304.00	0.490	315.000	1303.98	4.25	4.26	-2.21	40°07'02.221"N	104°52'33.070"W	0.15	TIE ONTO GYROS
1404.00†	0.490	315.000	1403.98	4.85	4.86	-2.81	40°07'02.227"N	104°52'33.078"W	0.00	
1504.00†	0.490	315.000	1503.97	5.45	5.47	-3.42	40°07'02.233"N	104°52'33.086"W	0.00	
1504.03	0.490	315.000	1504.00	5.45	5.47	-3.42	40°07'02.233"N	104°52'33.086"W	0.00	BEGIN NUDGE
1604.00†	1.510	131.022	1603.96	4.89	4.91	-2.73	40°07'02.227"N	104°52'33.077"W	2.00	
1704.00†	3.510	131.577	1703.86	2.01	2.01	0.56	40°07'02.199"N	104°52'33.035"W	2.00	
1804.00†	5.510	131.729	1803.55	-3.18	-3.22	6.43	40°07'02.147"N	104°52'32.959"W	2.00	
1904.00†	7.510	131.801	1902.90	-10.68	-10.77	14.89	40°07'02.073"N	104°52'32.850"W	2.00	
2004.00†	9.510	131.842	2001.79	-20.49	-20.64	25.92	40°07'01.975"N	104°52'32.708"W	2.00	
2028.49	10.000	131.850	2025.93	-23.24	-23.41	29.01	40°07'01.948"N	104°52'32.669"W	2.00	END NUDGE
2104.00†	10.000	131.850	2100.29	-31.93	-32.16	38.77	40°07'01.861"N	104°52'32.543"W	0.00	
2204.00†	10.000	131.850	2198.77	-43.44	-43.74	51.71	40°07'01.747"N	104°52'32.376"W	0.00	
2304.00†	10.000	131.850	2297.25	-54.95	-55.33	64.64	40°07'01.632"N	104°52'32.210"W	0.00	
2404.00†	10.000	131.850	2395.73	-66.46	-66.91	77.58	40°07'01.518"N	104°52'32.043"W	0.00	
2504.00†	10.000	131.850	2494.21	-77.97	-78.50	90.51	40°07'01.403"N	104°52'31.877"W	0.00	
2604.00†	10.000	131.850	2592.70	-89.48	-90.08	103.45	40°07'01.289"N	104°52'31.710"W	0.00	
2704.00†	10.000	131.850	2691.18	-100.99	-101.67	116.38	40°07'01.174"N	104°52'31.544"W	0.00	
2804.00†	10.000	131.850	2789.66	-112.50	-113.25	129.32	40°07'01.060"N	104°52'31.377"W	0.00	
2904.00†	10.000	131.850	2888.14	-124.01	-124.84	142.25	40°07'00.945"N	104°52'31.211"W	0.00	
3004.00†	10.000	131.850	2986.62	-135.52	-136.43	155.19	40°07'00.831"N	104°52'31.044"W	0.00	
3104.00†	10.000	131.850	3085.10	-147.03	-148.01	168.12	40°07'00.716"N	104°52'30.878"W	0.00	
3204.00†	10.000	131.850	3183.58	-158.53	-159.60	181.06	40°07'00.602"N	104°52'30.711"W	0.00	
3304.00†	10.000	131.850	3282.06	-170.04	-171.18	193.99	40°07'00.487"N	104°52'30.545"W	0.00	
3404.00†	10.000	131.850	3380.54	-181.55	-182.77	206.93	40°07'00.373"N	104°52'30.379"W	0.00	
3504.00†	10.000	131.850	3479.02	-193.06	-194.35	219.86	40°07'00.258"N	104°52'30.212"W	0.00	
3604.00†	10.000	131.850	3577.50	-204.57	-205.94	232.80	40°07'00.144"N	104°52'30.046"W	0.00	
3704.00†	10.000	131.850	3675.98	-216.08	-217.52	245.73	40°07'00.029"N	104°52'29.879"W	0.00	
3804.00†	10.000	131.850	3774.46	-227.59	-229.11	258.67	40°06'59.915"N	104°52'29.713"W	0.00	
3904.00†	10.000	131.850	3872.95	-239.10	-240.69	271.60	40°06'59.800"N	104°52'29.546"W	0.00	
4004.00†	10.000	131.850	3971.43	-250.61	-252.28	284.54	40°06'59.686"N	104°52'29.380"W	0.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 WHIPSNAKE 2C-22HZ (300'FSL & 2338'FEL, SEC.22)
Area	COLORADO	Well	WHIPSNAKE 2C-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSNAKE 2C-22HZ PWB
Facility	SEC.22-T2N-R67W		

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MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4104.00†	10.000	131.850	4069.91	-262.12	-263.87	297.47	40°06'59.571"N	104°52'29.213"W	0.00	
4160.96†	10.000	131.850	4126.00	-268.68	-270.46	304.84	40°06'59.506"N	104°52'29.118"W	0.00	PARKMAN
4204.00†	10.000	131.850	4168.39	-273.63	-275.45	310.41	40°06'59.457"N	104°52'29.047"W	0.00	
4304.00†	10.000	131.850	4266.87	-285.14	-287.04	323.34	40°06'59.342"N	104°52'28.880"W	0.00	
4404.00†	10.000	131.850	4365.35	-296.65	-298.62	336.28	40°06'59.228"N	104°52'28.714"W	0.00	
4504.00†	10.000	131.850	4463.83	-308.16	-310.21	349.21	40°06'59.113"N	104°52'28.547"W	0.00	
4538.70†	10.000	131.850	4498.00	-312.15	-314.23	353.70	40°06'59.074"N	104°52'28.489"W	0.00	SUSSEX
4604.00†	10.000	131.850	4562.31	-319.67	-321.79	362.15	40°06'58.999"N	104°52'28.381"W	0.00	
4704.00†	10.000	131.850	4660.79	-331.18	-333.38	375.08	40°06'58.884"N	104°52'28.214"W	0.00	
4804.00†	10.000	131.850	4759.27	-342.69	-344.96	388.02	40°06'58.770"N	104°52'28.048"W	0.00	
4904.00†	10.000	131.850	4857.75	-354.20	-356.55	400.95	40°06'58.655"N	104°52'27.881"W	0.00	
5004.00†	10.000	131.850	4956.23	-365.71	-368.14	413.89	40°06'58.541"N	104°52'27.715"W	0.00	
5104.00†	10.000	131.850	5054.72	-377.22	-379.72	426.82	40°06'58.427"N	104°52'27.548"W	0.00	
5162.17	10.000	131.850	5112.00	-383.91	-386.46	434.35	40°06'58.360"N	104°52'27.451"W	0.00	BEGIN DROP
5204.00†	9.163	131.850	5153.25	-388.53	-391.11	439.53	40°06'58.314"N	104°52'27.385"W	2.00	
5304.00†	7.163	131.850	5252.23	-397.94	-400.58	450.11	40°06'58.220"N	104°52'27.248"W	2.00	
5404.00†	5.163	131.850	5351.65	-405.06	-407.74	458.11	40°06'58.150"N	104°52'27.145"W	2.00	
5504.00†	3.163	131.850	5451.38	-409.87	-412.59	463.51	40°06'58.102"N	104°52'27.076"W	2.00	
5604.00†	1.163	131.850	5551.30	-412.37	-415.10	466.33	40°06'58.077"N	104°52'27.040"W	2.00	
5662.17	0.000	0.335	5609.47	-412.76	-415.50	466.77	40°06'58.073"N	104°52'27.034"W	2.00	END DROP
5704.00†	0.000	0.335	5651.30	-412.76	-415.50	466.77	40°06'58.073"N	104°52'27.034"W	0.00	
5804.00†	0.000	0.335	5751.30	-412.76	-415.50	466.77	40°06'58.073"N	104°52'27.034"W	0.00	
5904.00†	0.000	0.335	5851.30	-412.76	-415.50	466.77	40°06'58.073"N	104°52'27.034"W	0.00	
6004.00†	0.000	0.335	5951.30	-412.76	-415.50	466.77	40°06'58.073"N	104°52'27.034"W	0.00	
6104.00†	0.000	0.335	6051.30	-412.76	-415.50	466.77	40°06'58.073"N	104°52'27.034"W	0.00	
6204.00†	0.000	0.335	6151.30	-412.76	-415.50	466.77	40°06'58.073"N	104°52'27.034"W	0.00	
6304.00†	0.000	0.335	6251.30	-412.76	-415.50	466.77	40°06'58.073"N	104°52'27.034"W	0.00	
6404.00†	0.000	0.335	6351.30	-412.76	-415.50	466.77	40°06'58.073"N	104°52'27.034"W	0.00	
6504.00†	0.000	0.335	6451.30	-412.76	-415.50	466.77	40°06'58.073"N	104°52'27.034"W	0.00	
6604.00†	0.000	0.335	6551.30	-412.76	-415.50	466.77	40°06'58.073"N	104°52'27.034"W	0.00	
6704.00†	0.000	0.335	6651.30	-412.76	-415.50	466.77	40°06'58.073"N	104°52'27.034"W	0.00	
6804.00†	0.000	0.335	6751.30	-412.76	-415.50	466.77	40°06'58.073"N	104°52'27.034"W	0.00	
6904.00†	0.000	0.335	6851.30	-412.76	-415.50	466.77	40°06'58.073"N	104°52'27.034"W	0.00	
7004.00†	0.000	0.335	6951.30	-412.76	-415.50	466.77	40°06'58.073"N	104°52'27.034"W	0.00	
7094.75	0.000	0.335	7042.05	-412.76	-415.50	466.77	40°06'58.073"N	104°52'27.034"W	0.00	KOP, BUILD @ 10°/100'
7104.00†	0.925	0.336	7051.30	-412.69	-415.42	466.77	40°06'58.074"N	104°52'27.034"W	10.00	
7204.00†	10.925	0.335	7150.64	-402.38	-405.11	466.83	40°06'58.176"N	104°52'27.033"W	10.00	
7304.00†	20.925	0.335	7246.68	-374.97	-377.71	466.99	40°06'58.446"N	104°52'27.031"W	10.00	
7314.02†	21.927	0.336	7256.00	-371.31	-374.05	467.01	40°06'58.483"N	104°52'27.031"W	10.00	SHARON SPRINGS
7392.99†	29.824	0.335	7327.00	-336.88	-339.61	467.21	40°06'58.823"N	104°52'27.028"W	10.00	NIOBRARA A
7404.00†	30.925	0.336	7336.50	-331.31	-334.05	467.24	40°06'58.878"N	104°52'27.028"W	10.00	
7472.48†	37.773	0.336	7393.00	-292.70	-295.43	467.47	40°06'59.259"N	104°52'27.025"W	10.00	NIOBRARA B
7504.00†	40.925	0.335	7417.37	-272.71	-275.45	467.59	40°06'59.457"N	104°52'27.023"W	10.00	
7567.57†	47.282	0.335	7463.00	-228.49	-231.23	467.85	40°06'59.894"N	104°52'27.020"W	10.00	NIOBRARA C
7604.00†	50.925	0.335	7486.85	-200.96	-203.70	468.01	40°07'00.166"N	104°52'27.018"W	10.00	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 WHIPSNAKE 2C-22HZ (300'FSL & 2338'FEL, SEC.22)
Area	COLORADO	Well	WHIPSNAKE 2C-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSNAKE 2C-22HZ PWB
Facility	SEC.22-T2N-R67W		

WELLPATH DATA (146 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7704.00†	60.925	0.335	7542.80	-118.23	-120.97	468.49	40°07'00.983"N	104°52'27.012"W	10.00	
7804.00†	70.925	0.335	7583.54	-27.05	-29.79	469.02	40°07'01.885"N	104°52'27.005"W	10.00	
7818.14†	72.339	0.335	7588.00	-13.63	-16.37	469.10	40°07'02.017"N	104°52'27.004"W	10.00	FORT HAYS
7904.00†	80.925	0.336	7607.83	69.83	67.08	469.59	40°07'02.842"N	104°52'26.998"W	10.00	
7918.98†	82.423	0.335	7610.00	84.64	81.90	469.68	40°07'02.988"N	104°52'26.996"W	10.00	CODELL
7994.75	90.000	0.335	7615.00	160.20	157.45	470.12	40°07'03.735"N	104°52'26.991"W	10.00	LANDING POINT
8004.00†	90.000	0.335	7615.00	169.45	166.70	470.18	40°07'03.826"N	104°52'26.990"W	0.00	
8104.00†	90.000	0.335	7615.00	269.45	266.70	470.76	40°07'04.815"N	104°52'26.982"W	0.00	
8204.00†	90.000	0.335	7615.00	369.45	366.70	471.35	40°07'05.803"N	104°52'26.975"W	0.00	
8304.00†	90.000	0.335	7615.00	469.45	466.70	471.93	40°07'06.791"N	104°52'26.967"W	0.00	
8404.00†	90.000	0.335	7615.00	569.45	566.69	472.52	40°07'07.779"N	104°52'26.960"W	0.00	
8504.00†	90.000	0.335	7615.00	669.45	666.69	473.10	40°07'08.767"N	104°52'26.952"W	0.00	
8604.00†	90.000	0.335	7615.00	769.45	766.69	473.69	40°07'09.755"N	104°52'26.945"W	0.00	
8704.00†	90.000	0.335	7615.00	869.45	866.69	474.27	40°07'10.744"N	104°52'26.937"W	0.00	
8804.00†	90.000	0.335	7615.00	969.45	966.69	474.86	40°07'11.732"N	104°52'26.930"W	0.00	
8904.00†	90.000	0.335	7615.00	1069.45	1066.69	475.44	40°07'12.720"N	104°52'26.922"W	0.00	
9004.00†	90.000	0.335	7615.00	1169.45	1166.68	476.03	40°07'13.708"N	104°52'26.914"W	0.00	
9104.00†	90.000	0.335	7615.00	1269.45	1266.68	476.61	40°07'14.696"N	104°52'26.907"W	0.00	
9204.00†	90.000	0.335	7615.00	1369.45	1366.68	477.20	40°07'15.685"N	104°52'26.899"W	0.00	
9304.00†	90.000	0.335	7615.00	1469.45	1466.68	477.78	40°07'16.673"N	104°52'26.892"W	0.00	
9404.00†	90.000	0.335	7615.00	1569.45	1566.68	478.37	40°07'17.661"N	104°52'26.884"W	0.00	
9504.00†	90.000	0.335	7615.00	1669.45	1666.68	478.95	40°07'18.649"N	104°52'26.877"W	0.00	
9604.00†	90.000	0.335	7615.00	1769.45	1766.67	479.54	40°07'19.637"N	104°52'26.869"W	0.00	
9704.00†	90.000	0.335	7615.00	1869.45	1866.67	480.12	40°07'20.626"N	104°52'26.862"W	0.00	
9804.00†	90.000	0.335	7615.00	1969.45	1966.67	480.71	40°07'21.614"N	104°52'26.854"W	0.00	
9904.00†	90.000	0.335	7615.00	2069.45	2066.67	481.29	40°07'22.602"N	104°52'26.846"W	0.00	
10004.00†	90.000	0.335	7615.00	2169.45	2166.67	481.88	40°07'23.590"N	104°52'26.839"W	0.00	
10104.00†	90.000	0.335	7615.00	2269.45	2266.67	482.46	40°07'24.578"N	104°52'26.831"W	0.00	
10204.00†	90.000	0.335	7615.00	2369.45	2366.66	483.05	40°07'25.567"N	104°52'26.824"W	0.00	
10304.00†	90.000	0.335	7615.00	2469.45	2466.66	483.63	40°07'26.555"N	104°52'26.816"W	0.00	
10404.00†	90.000	0.335	7615.00	2569.45	2566.66	484.22	40°07'27.543"N	104°52'26.809"W	0.00	
10504.00†	90.000	0.335	7615.00	2669.45	2666.66	484.80	40°07'28.531"N	104°52'26.801"W	0.00	
10604.00†	90.000	0.335	7615.00	2769.45	2766.66	485.39	40°07'29.519"N	104°52'26.794"W	0.00	
10704.00†	90.000	0.335	7615.00	2869.45	2866.66	485.97	40°07'30.508"N	104°52'26.786"W	0.00	
10804.00†	90.000	0.335	7615.00	2969.45	2966.65	486.56	40°07'31.496"N	104°52'26.778"W	0.00	
10904.00†	90.000	0.335	7615.00	3069.45	3066.65	487.14	40°07'32.484"N	104°52'26.771"W	0.00	
11004.00†	90.000	0.335	7615.00	3169.45	3166.65	487.73	40°07'33.472"N	104°52'26.763"W	0.00	
11104.00†	90.000	0.335	7615.00	3269.45	3266.65	488.31	40°07'34.460"N	104°52'26.756"W	0.00	
11204.00†	90.000	0.335	7615.00	3369.45	3366.65	488.90	40°07'35.449"N	104°52'26.748"W	0.00	
11304.00†	90.000	0.335	7615.00	3469.45	3466.65	489.48	40°07'36.437"N	104°52'26.741"W	0.00	
11404.00†	90.000	0.335	7615.00	3569.45	3566.64	490.06	40°07'37.425"N	104°52'26.733"W	0.00	
11504.00†	90.000	0.335	7615.00	3669.45	3666.64	490.65	40°07'38.413"N	104°52'26.726"W	0.00	
11604.00†	90.000	0.335	7615.00	3769.45	3766.64	491.23	40°07'39.401"N	104°52'26.718"W	0.00	
11704.00†	90.000	0.335	7615.00	3869.45	3866.64	491.82	40°07'40.390"N	104°52'26.710"W	0.00	
11804.00†	90.000	0.335	7615.00	3969.45	3966.64	492.40	40°07'41.378"N	104°52'26.703"W	0.00	

Planned Wellpath Report

WHIPSNAKE 2C-22HZ (REV-A.1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 WHIPSNAKE 2C-22HZ (300'FSL & 2338'FEL, SEC.22)
Area	COLORADO	Well	WHIPSNAKE 2C-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSNAKE 2C-22HZ PWB
Facility	SEC.22-T2N-R67W		

WELLPATH DATA (146 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
11904.00†	90.000	0.335	7615.00	4069.45	4066.63	492.99	40°07'42.366"N	104°52'26.695"W	0.00	
12004.00†	90.000	0.335	7615.00	4169.45	4166.63	493.57	40°07'43.354"N	104°52'26.688"W	0.00	
12104.00†	90.000	0.335	7615.00	4269.45	4266.63	494.15	40°07'44.342"N	104°52'26.680"W	0.00	
12204.00†	90.000	0.335	7615.00	4369.45	4366.63	494.74	40°07'45.330"N	104°52'26.673"W	0.00	
12304.00†	90.000	0.335	7615.00	4469.45	4466.63	495.32	40°07'46.319"N	104°52'26.665"W	0.00	
12404.00†	90.000	0.335	7615.00	4569.45	4566.63	495.91	40°07'47.307"N	104°52'26.658"W	0.00	
12504.00†	90.000	0.335	7615.00	4669.45	4666.62	496.49	40°07'48.295"N	104°52'26.650"W	0.00	
12604.00†	90.000	0.335	7615.00	4769.45	4766.62	497.08	40°07'49.283"N	104°52'26.643"W	0.00	
12704.00†	90.000	0.335	7615.00	4869.45	4866.62	497.66	40°07'50.271"N	104°52'26.635"W	0.00	
12804.00†	90.000	0.335	7615.00	4969.45	4966.62	498.24	40°07'51.260"N	104°52'26.627"W	0.00	
12810.41	90.000	0.335	7615.00 ¹	4975.86	4973.03	498.28	40°07'51.323"N	104°52'26.627"W	0.00	TOTAL DEPTH

HOLE & CASING SECTIONS - Ref Wellbore: WHIPSNAKE 2C-22HZ PWB Ref Wellpath: WHIPSNAKE 2C-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	1359.00	1343.00	16.00	1358.98	0.00	0.00	4.59	-2.54
9.625in Casing Surface	16.00	1329.00	1313.00	16.00	1328.98	0.00	0.00	4.41	-2.36
8.75in Open Hole	1359.00	7994.75	6635.75	1358.98	7615.00	4.59	-2.54	157.45	470.12
7in Casing Intermediate	16.00	7994.75	7978.75	16.00	7615.00	0.00	0.00	157.45	470.12
6.125in Open Hole	7994.75	12810.41	4815.66	7615.00	7615.00	157.45	470.12	4973.03	498.28
4.5in Casing Production	16.00	12810.41	12794.41	16.00	7615.00	0.00	0.00	4973.03	498.28

Planned Wellpath Report

WHIPSNAKE 2C-22HZ (REV-A.1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 WHIPSNAKE 2C-22HZ (300'FSL & 2338'FEL, SEC.22)
Area	COLORADO	Well	WHIPSNAKE 2C-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSNAKE 2C-22HZ PWB
Facility	SEC.22-T2N-R67W		

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	-1996.05	3172530.63	1290513.02	40°07'45.134"N	104°52'58.739"W	polygon
WHIPSNAKE 2C-22HZ BHL ON PLAT REV-1 (1'FNL & 2102'FEL, SEC.22)		7613.00	4974.83	262.29	3174784.39	1291156.88	40°07'51.341"N	104°52'29.665"W	point
1) WHIPSNAKE 2C-22HZ BHL ON PLAT REV-2 (1'FNL & 1866'FEL, SEC.22)	12810.41	7615.00	4973.03	498.28	3175020.38	1291156.74	40°07'51.323"N	104°52'26.627"W	point
WHIPSNAKE 2C-22HZ LANDBOX		7615.00	0.00	0.00	3174557.13	1286180.54	40°07'02.179"N	104°52'33.042"W	polygon

SURVEY PROGRAM - Ref Wellbore: WHIPSNAKE 2C-22HZ PWB Ref Wellpath: WHIPSNAKE 2C-22HZ (REV-A.1) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	1304.00	Generic gyro - continuous (Standard)		WHIPSNAKE 2C-22HZ AWB
1304.00	7994.75	NaviTrak (MAGCORR,IFR)		WHIPSNAKE 2C-22HZ PWB
7994.75	12812.21	NaviTrak (MAGCORR,IFR)		WHIPSNAKE 2C-22HZ PWB

Planned Wellpath Report

WHIPSNAKE 2C-22HZ (REV-A.1) PWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#28 WHIPSNAKE 2C-22HZ (300'FSL & 2338'FEL, SEC.22)
Area	COLORADO	Well	WHIPSNAKE 2C-22HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	WHIPSNAKE 2C-22HZ PWB
Facility	SEC.22-T2N-R67W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1221.02	0.603	321.352	1221.00	FOX HILLS MARKER
4160.96	10.000	131.850	4126.00	PARKMAN
4538.70	10.000	131.850	4498.00	SUSSEX
7314.02	21.927	0.336	7256.00	SHARON SPRINGS
7392.99	29.824	0.335	7327.00	NIOBRARA A
7472.48	37.773	0.336	7393.00	NIOBRARA B
7567.57	47.282	0.335	7463.00	NIOBRARA C
7818.14	72.339	0.335	7588.00	FORT HAYS
7918.98	82.423	0.335	7610.00	CODELL

DESIGN COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
1304.00	0.490	315.000	1303.98	TIE ONTO GYROS
1504.03	0.490	315.000	1504.00	BEGIN NUDGE
2028.49	10.000	131.850	2025.93	END NUDGE
5162.17	10.000	131.850	5112.00	BEGIN DROP
5662.17	0.000	0.335	5609.47	END DROP
7094.75	0.000	0.335	7042.05	KOP, BUILD @ 10°/100'
7994.75	90.000	0.335	7615.00	LANDING POINT
12810.41	90.000	0.335	7615.00	TOTAL DEPTH