

KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#10 REI 31-5HZ (511'FSL & 748'FEL)
 Field: WELD COUNTY (KERR MCGEE) Well: REI 31-5HZ
 Facility: SEC.05-T3N-R65W Wellbore: REI 31-5HZ PWB

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	17.00	0.000	310.502	17.00	0.00	0.00	0.00	0.00
End of Tangent	6472.00	0.000	310.502	6472.00	0.00	0.00	0.00	0.00
End of Build (J)	7369.37	89.737	310.502	7044.95	370.42	-433.67	10.00	570.33
End of Tangent (J)	12176.54	89.737	310.502	7067.00	3492.54	-4088.90	0.00	5377.45

Location Information

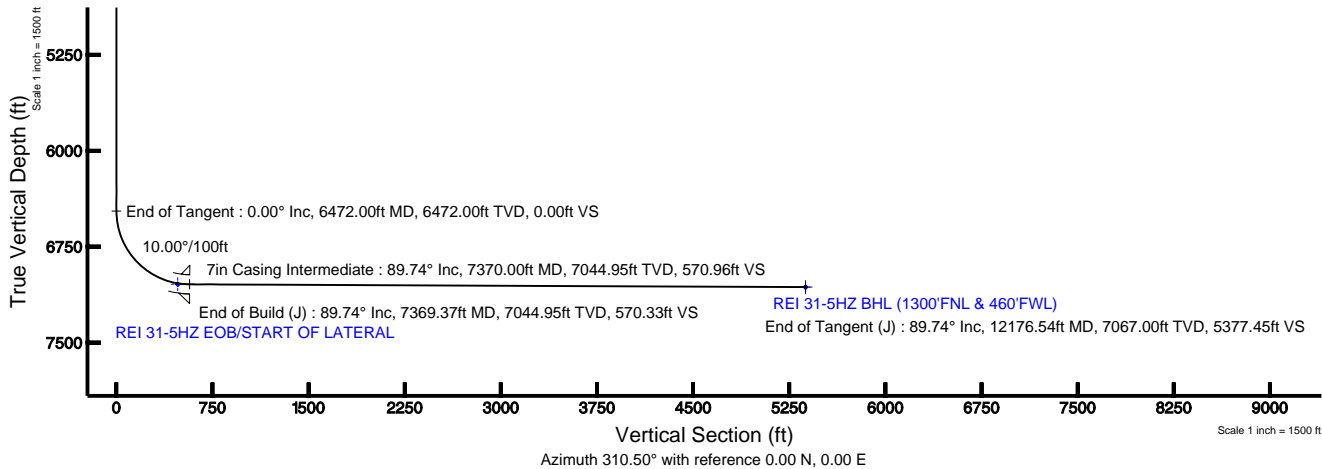
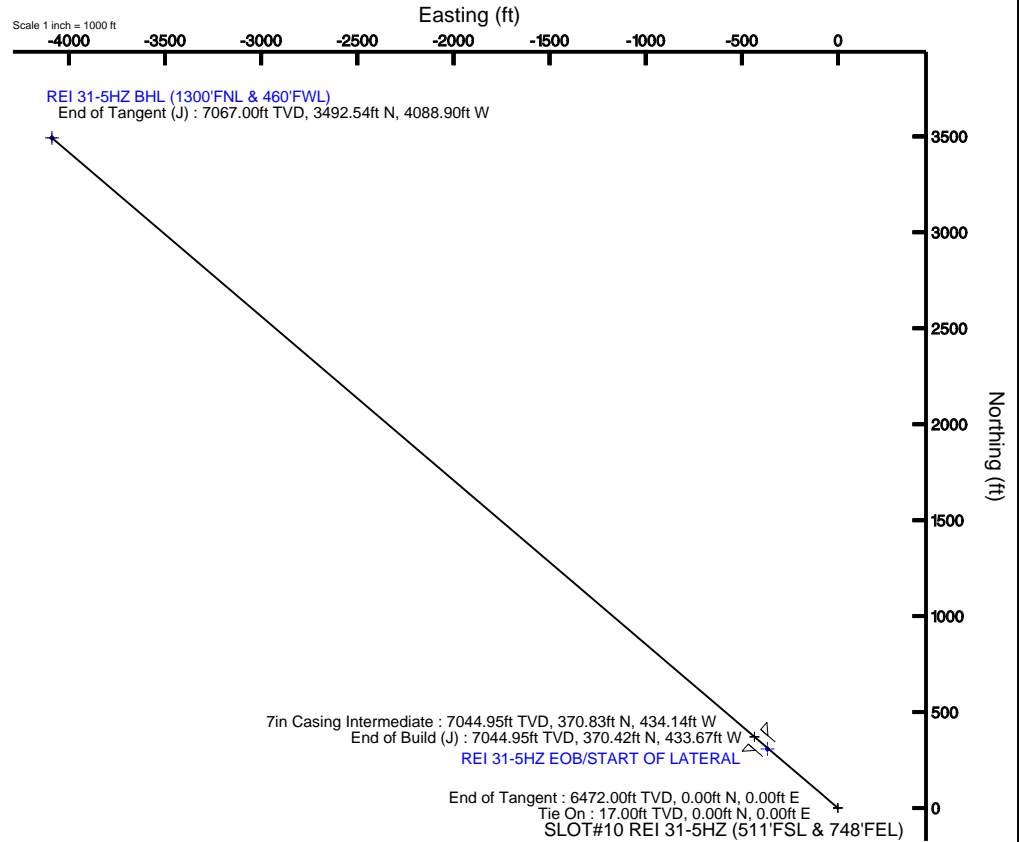
Facility Name		Grid East (USft)	Grid North (USft)	Latitude	Longitude	
SEC.05-T3N-R65W		3224990.890	1334498.490	40°14'55.644"N	104°41'38.220"W	
Slot	Local N (ft)	Local E (ft)	Grid East (USft)	Grid North (USft)	Latitude	Longitude
SLOT#10 REI 31-5HZ (511'FSL & 748'FEL)	-90.79	3788.00	3228779.387	1334442.143	40°14'54.744"N	104°40'49.368"W
XTREME 8 (RT) to Mud line (Facility: SEC.05-T3N-R65W)				4906ft		
Mean Sea Level to Mud line (Facility: SEC.05-T3N-R65W)				0ft		
XTREME 8 (RT) to Mean Sea Level				4906ft		

Targets

Name	MD (ft)	TVD (ft)	Local N (ft)	Local E (ft)	Grid East (USft)	Grid North (USft)	Latitude	Longitude
REI 31-5HZ EOB/START OF LATERAL	7044.00	307.47	-366.51	-366.51	3228410.06	1334746.20	40°14'57.782"N	104°40'54.095"W
REI 31-5HZ BHL (1300'FNL & 460'FWL)	12176.54	7067.00	3492.54	-4088.90	3224658.57	1337896.59	40°15'29.254"N	104°41'42.108"W

Plot reference wellpath is REI 31-5HZ (REV-B.0) PWP

True vertical depths are referenced to XTREME 8 (RT)	Grid System: NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet
Measured depths are referenced to XTREME 8 (RT)	North Reference: True north
XTREME 8 (RT) to Mean Sea Level: 4906 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: SEC.05-T3N-R65W): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: cookdanm on 8/18/2010





Planned Wellpath Report

REI 31-5HZ (REV-B.0) PWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 REI 31-5HZ (511'FSL & 748'FEL)
Area	COLORADO	Well	REI 31-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	REI 31-5HZ PWB
Facility	SEC.05-T3N-R65W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet	Software System	WellArchitect® 2.0
North Reference	True	User	Cookdanm
Scale	0.999957	Report Generated	8/18/2010 at 11:11:00 AM
Convergence at slot	0.53° East	Database/Source file	Denver Server/REI_31-5HZ_PWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	-90.79	3788.00	3228779.39	1334442.14	40°14'54.744"N	104°40'49.368"W
Facility Reference Pt			3224990.89	1334498.49	40°14'55.644"N	104°41'38.220"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 8 (RT) to Installation Vertical Datum	4906.00ft
Horizontal Reference Pt	Slot	XTREME 8 (RT) to Mean Sea Level	4906.00ft
Vertical Reference Pt	XTREME 8 (RT)	Installation Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	XTREME 8 (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	310.50°



Planned Wellpath Report

REI 31-5HZ (REV-B.0) PWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
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Area	COLORADO	Well	REI 31-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	REI 31-5HZ PWB
Facility	SEC.05-T3N-R65W		

WELLPATH DATA (126 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	310.502	0.00	0.00	0.00	0.00	0.00	
17.00	0.000	310.502	17.00	0.00	0.00	0.00	0.00	Tie On
117.00†	0.000	310.502	117.00	0.00	0.00	0.00	0.00	
217.00†	0.000	310.502	217.00	0.00	0.00	0.00	0.00	
317.00†	0.000	310.502	317.00	0.00	0.00	0.00	0.00	
417.00†	0.000	310.502	417.00	0.00	0.00	0.00	0.00	
517.00†	0.000	310.502	517.00	0.00	0.00	0.00	0.00	
617.00†	0.000	310.502	617.00	0.00	0.00	0.00	0.00	
717.00†	0.000	310.502	717.00	0.00	0.00	0.00	0.00	
817.00†	0.000	310.502	817.00	0.00	0.00	0.00	0.00	
917.00†	0.000	310.502	917.00	0.00	0.00	0.00	0.00	
1017.00†	0.000	310.502	1017.00	0.00	0.00	0.00	0.00	
1117.00†	0.000	310.502	1117.00	0.00	0.00	0.00	0.00	
1217.00†	0.000	310.502	1217.00	0.00	0.00	0.00	0.00	
1317.00†	0.000	310.502	1317.00	0.00	0.00	0.00	0.00	
1417.00†	0.000	310.502	1417.00	0.00	0.00	0.00	0.00	
1517.00†	0.000	310.502	1517.00	0.00	0.00	0.00	0.00	
1617.00†	0.000	310.502	1617.00	0.00	0.00	0.00	0.00	
1717.00†	0.000	310.502	1717.00	0.00	0.00	0.00	0.00	
1817.00†	0.000	310.502	1817.00	0.00	0.00	0.00	0.00	
1917.00†	0.000	310.502	1917.00	0.00	0.00	0.00	0.00	
2017.00†	0.000	310.502	2017.00	0.00	0.00	0.00	0.00	
2117.00†	0.000	310.502	2117.00	0.00	0.00	0.00	0.00	
2217.00†	0.000	310.502	2217.00	0.00	0.00	0.00	0.00	
2317.00†	0.000	310.502	2317.00	0.00	0.00	0.00	0.00	
2417.00†	0.000	310.502	2417.00	0.00	0.00	0.00	0.00	
2517.00†	0.000	310.502	2517.00	0.00	0.00	0.00	0.00	
2617.00†	0.000	310.502	2617.00	0.00	0.00	0.00	0.00	
2717.00†	0.000	310.502	2717.00	0.00	0.00	0.00	0.00	
2817.00†	0.000	310.502	2817.00	0.00	0.00	0.00	0.00	
2917.00†	0.000	310.502	2917.00	0.00	0.00	0.00	0.00	
3017.00†	0.000	310.502	3017.00	0.00	0.00	0.00	0.00	
3117.00†	0.000	310.502	3117.00	0.00	0.00	0.00	0.00	
3217.00†	0.000	310.502	3217.00	0.00	0.00	0.00	0.00	
3317.00†	0.000	310.502	3317.00	0.00	0.00	0.00	0.00	
3417.00†	0.000	310.502	3417.00	0.00	0.00	0.00	0.00	
3517.00†	0.000	310.502	3517.00	0.00	0.00	0.00	0.00	
3617.00†	0.000	310.502	3617.00	0.00	0.00	0.00	0.00	
3717.00†	0.000	310.502	3717.00	0.00	0.00	0.00	0.00	
3817.00†	0.000	310.502	3817.00	0.00	0.00	0.00	0.00	
3917.00†	0.000	310.502	3917.00	0.00	0.00	0.00	0.00	
4017.00†	0.000	310.502	4017.00	0.00	0.00	0.00	0.00	
4117.00†	0.000	310.502	4117.00	0.00	0.00	0.00	0.00	
4217.00†	0.000	310.502	4217.00	0.00	0.00	0.00	0.00	
4317.00†	0.000	310.502	4317.00	0.00	0.00	0.00	0.00	



Planned Wellpath Report

REI 31-5HZ (REV-B.0) PWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 REI 31-5HZ (511'FSL & 748'FEL)
Area	COLORADO	Well	REI 31-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	REI 31-5HZ PWB
Facility	SEC.05-T3N-R65W		

WELLPATH DATA (126 stations) † = interpolated/extrapolated station								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
4417.00†	0.000	310.502	4417.00	0.00	0.00	0.00	0.00	
4517.00†	0.000	310.502	4517.00	0.00	0.00	0.00	0.00	
4617.00†	0.000	310.502	4617.00	0.00	0.00	0.00	0.00	
4717.00†	0.000	310.502	4717.00	0.00	0.00	0.00	0.00	
4817.00†	0.000	310.502	4817.00	0.00	0.00	0.00	0.00	
4917.00†	0.000	310.502	4917.00	0.00	0.00	0.00	0.00	
5017.00†	0.000	310.502	5017.00	0.00	0.00	0.00	0.00	
5117.00†	0.000	310.502	5117.00	0.00	0.00	0.00	0.00	
5217.00†	0.000	310.502	5217.00	0.00	0.00	0.00	0.00	
5317.00†	0.000	310.502	5317.00	0.00	0.00	0.00	0.00	
5417.00†	0.000	310.502	5417.00	0.00	0.00	0.00	0.00	
5517.00†	0.000	310.502	5517.00	0.00	0.00	0.00	0.00	
5617.00†	0.000	310.502	5617.00	0.00	0.00	0.00	0.00	
5717.00†	0.000	310.502	5717.00	0.00	0.00	0.00	0.00	
5817.00†	0.000	310.502	5817.00	0.00	0.00	0.00	0.00	
5917.00†	0.000	310.502	5917.00	0.00	0.00	0.00	0.00	
6017.00†	0.000	310.502	6017.00	0.00	0.00	0.00	0.00	
6117.00†	0.000	310.502	6117.00	0.00	0.00	0.00	0.00	
6217.00†	0.000	310.502	6217.00	0.00	0.00	0.00	0.00	
6317.00†	0.000	310.502	6317.00	0.00	0.00	0.00	0.00	
6417.00†	0.000	310.502	6417.00	0.00	0.00	0.00	0.00	
6472.00	0.000	310.502	6472.00	0.00	0.00	0.00	0.00	End of Tangent
6517.00†	4.500	310.502	6516.95	1.77	1.15	-1.34	10.00	
6617.00†	14.500	310.502	6615.46	18.25	11.85	-13.88	10.00	
6717.00†	24.500	310.502	6709.60	51.59	33.51	-39.23	10.00	
6817.00†	34.500	310.502	6796.53	100.77	65.45	-76.62	10.00	
6917.00†	44.500	310.502	6873.59	164.30	106.71	-124.93	10.00	
7017.00†	54.500	310.502	6938.45	240.24	156.03	-182.67	10.00	
7117.00†	64.500	310.502	6989.14	326.29	211.92	-248.11	10.00	
7217.00†	74.500	310.502	7024.12	419.84	272.68	-319.24	10.00	
7317.00†	84.500	310.502	7042.32	518.04	336.46	-393.91	10.00	
7369.37	89.737	310.502	7044.95	570.33	370.42	-433.67	10.00	End of Build (J)
7417.00†	89.737	310.502	7045.17	617.96	401.35	-469.88	0.00	
7517.00†	89.737	310.502	7045.63	717.96	466.30	-545.92	0.00	
7617.00†	89.737	310.502	7046.09	817.96	531.25	-621.96	0.00	
7717.00†	89.737	310.502	7046.55	917.95	596.19	-697.99	0.00	
7817.00†	89.737	310.502	7047.00	1017.95	661.14	-774.03	0.00	
7917.00†	89.737	310.502	7047.46	1117.95	726.09	-850.07	0.00	
8017.00†	89.737	310.502	7047.92	1217.95	791.03	-926.10	0.00	
8117.00†	89.737	310.502	7048.38	1317.95	855.98	-1002.14	0.00	
8217.00†	89.737	310.502	7048.84	1417.95	920.93	-1078.18	0.00	
8317.00†	89.737	310.502	7049.30	1517.95	985.88	-1154.22	0.00	
8417.00†	89.737	310.502	7049.76	1617.95	1050.82	-1230.25	0.00	
8517.00†	89.737	310.502	7050.22	1717.95	1115.77	-1306.29	0.00	
8617.00†	89.737	310.502	7050.67	1817.94	1180.72	-1382.33	0.00	



Planned Wellpath Report

REI 31-5HZ (REV-B.0) PWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 REI 31-5HZ (511'FSL & 748'FEL)
Area	COLORADO	Well	REI 31-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	REI 31-5HZ PWB
Facility	SEC.05-T3N-R65W		

WELLPATH DATA (126 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
8717.00†	89.737	310.502	7051.13	1917.94	1245.67	-1458.36	0.00	
8817.00†	89.737	310.502	7051.59	2017.94	1310.61	-1534.40	0.00	
8917.00†	89.737	310.502	7052.05	2117.94	1375.56	-1610.44	0.00	
9017.00†	89.737	310.502	7052.51	2217.94	1440.51	-1686.48	0.00	
9117.00†	89.737	310.502	7052.97	2317.94	1505.45	-1762.51	0.00	
9217.00†	89.737	310.502	7053.43	2417.94	1570.40	-1838.55	0.00	
9317.00†	89.737	310.502	7053.88	2517.94	1635.35	-1914.59	0.00	
9417.00†	89.737	310.502	7054.34	2617.94	1700.30	-1990.62	0.00	
9517.00†	89.737	310.502	7054.80	2717.94	1765.24	-2066.66	0.00	
9617.00†	89.737	310.502	7055.26	2817.93	1830.19	-2142.70	0.00	
9717.00†	89.737	310.502	7055.72	2917.93	1895.14	-2218.73	0.00	
9817.00†	89.737	310.502	7056.18	3017.93	1960.09	-2294.77	0.00	
9917.00†	89.737	310.502	7056.64	3117.93	2025.03	-2370.81	0.00	
10017.00†	89.737	310.502	7057.10	3217.93	2089.98	-2446.85	0.00	
10117.00†	89.737	310.502	7057.55	3317.93	2154.93	-2522.88	0.00	
10217.00†	89.737	310.502	7058.01	3417.93	2219.87	-2598.92	0.00	
10317.00†	89.737	310.502	7058.47	3517.93	2284.82	-2674.96	0.00	
10417.00†	89.737	310.502	7058.93	3617.93	2349.77	-2750.99	0.00	
10517.00†	89.737	310.502	7059.39	3717.92	2414.72	-2827.03	0.00	
10617.00†	89.737	310.502	7059.85	3817.92	2479.66	-2903.07	0.00	
10717.00†	89.737	310.502	7060.31	3917.92	2544.61	-2979.11	0.00	
10817.00†	89.737	310.502	7060.76	4017.92	2609.56	-3055.14	0.00	
10917.00†	89.737	310.502	7061.22	4117.92	2674.51	-3131.18	0.00	
11017.00†	89.737	310.502	7061.68	4217.92	2739.45	-3207.22	0.00	
11117.00†	89.737	310.502	7062.14	4317.92	2804.40	-3283.25	0.00	
11217.00†	89.737	310.502	7062.60	4417.92	2869.35	-3359.29	0.00	
11317.00†	89.737	310.502	7063.06	4517.92	2934.29	-3435.33	0.00	
11417.00†	89.737	310.502	7063.52	4617.92	2999.24	-3511.37	0.00	
11517.00†	89.737	310.502	7063.97	4717.91	3064.19	-3587.40	0.00	
11617.00†	89.737	310.502	7064.43	4817.91	3129.14	-3663.44	0.00	
11717.00†	89.737	310.502	7064.89	4917.91	3194.08	-3739.48	0.00	
11817.00†	89.737	310.502	7065.35	5017.91	3259.03	-3815.51	0.00	
11917.00†	89.737	310.502	7065.81	5117.91	3323.98	-3891.55	0.00	
12017.00†	89.737	310.502	7066.27	5217.91	3388.93	-3967.59	0.00	
12117.00†	89.737	310.502	7066.73	5317.91	3453.87	-4043.63	0.00	
12176.54	89.737	310.502	7067.00 ¹	5377.45	3492.54	-4088.90	0.00	End of Tangent (J)



Planned Wellpath Report

REI 31-5HZ (REV-B.0) PWP

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#10 REI 31-5HZ (511'FSL & 748'FEL)
Area	COLORADO	Well	REI 31-5HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	REI 31-5HZ PWB
Facility	SEC.05-T3N-R65W		

HOLE & CASING SECTIONS Ref Wellbore: REI 31-5HZ PWB Ref Wellpath: REI 31-5HZ (REV-B.0) 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]
7in Casing Intermediate	17.00	7370.00	7353.00	17.00	7044.95	0.00	0.00	370.83	-434.14

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
REI 31-5HZ EOB/START OF LATERAL		7044.00	307.47	-366.51	3228410.06	1334746.20	40°14'57.782"N	104°40'54.095"W	point
1) REI 31-5HZ BHL (1300'FNL & 460'FWL)	12176.54	7067.00	3492.54	-4088.90	3224658.57	1337896.59	40°15'29.254"N	104°41'42.108"W	point

SURVEY PROGRAM Ref Wellbore: REI 31-5HZ PWB Ref Wellpath: REI 31-5HZ (REV-B.0) PWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	12176.54	NaviTrak (Standard)		REI 31-5HZ PWB