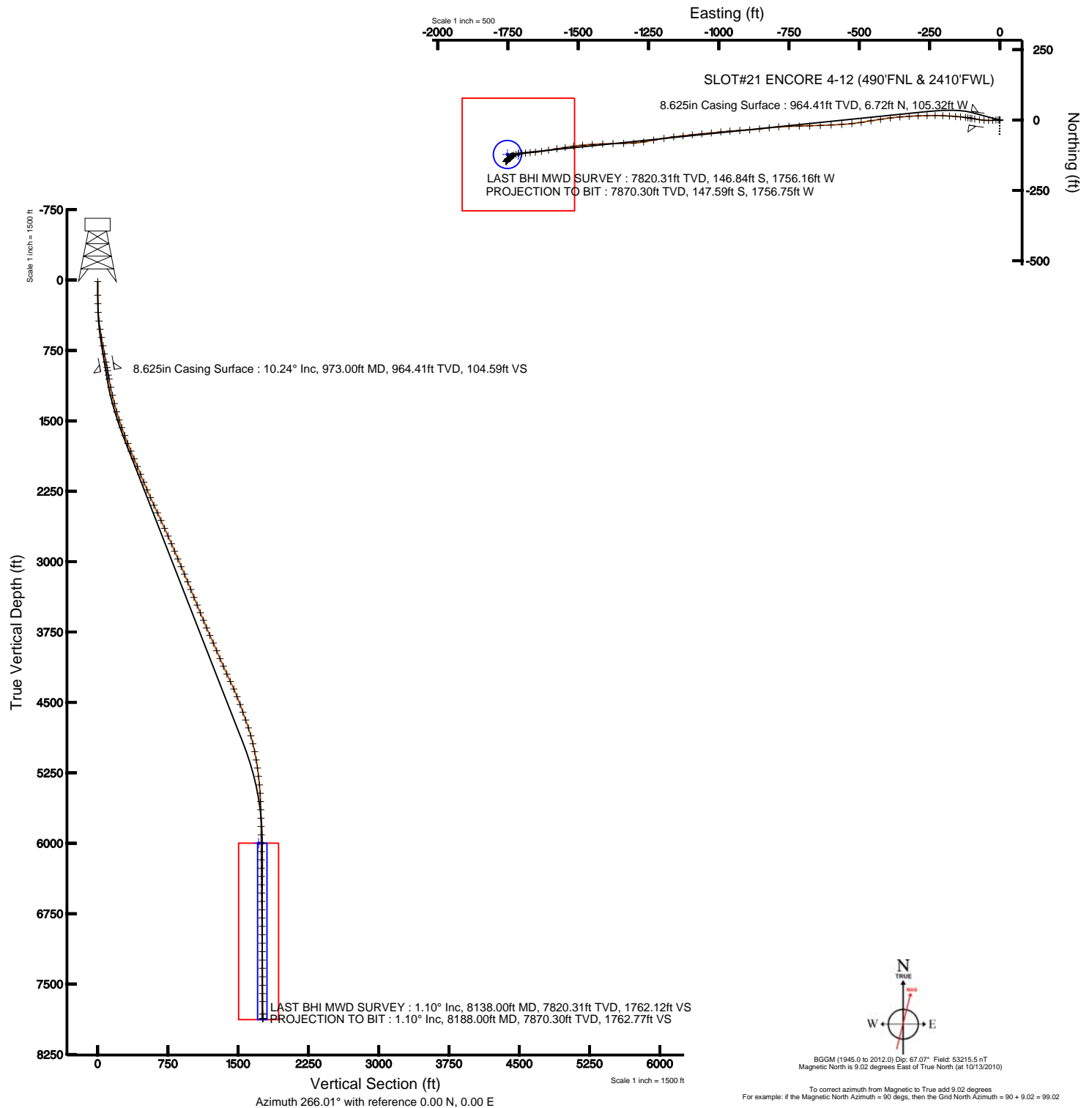


# KERR MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#21 ENCORE 4-12 (490'FNL & 2410'FWL)  
 Field: LARIMER COUNTY Well: ENCORE 4-12  
 Facility: SEC.12-T5N-R68W Wellbore: ENCORE 4-12 PWB



Plot reference wellpath is ENCORE 4-12 (REV-A.0) PWB	
True vertical depths are referenced to XTREME 6 (RKB)	Grid System: NAD83 / Lambert Colorado State Planes, Northern Zone (501), US feet
Measured depths are referenced to XTREME 6 (RKB)	North Reference: True north
XTREME 6 (RKB) to Mean Sea Level: 4906 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: SEC.12-T5N-R68W): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: cookdarn on 11/1/2010





# Actual Wellpath Report

ENCORE 4-12 AWP

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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#21 ENCORE 4-12 (490'FNL & 2410'FWL)
Area	COLORADO	Well	ENCORE 4-12
Field	LARIMER COUNTY	Wellbore	ENCORE 4-12 AWB
Facility	SEC.12-T5N-R68W		

## 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	0.999961	Report Generated	11/1/2010 at 5:26:07 PM
Convergence at slot	0.35° East	Database/Source file	Denver Server/ENCORE_4-12_AWB.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[USft]	Northing[USft]	Latitude	Longitude
Slot Location	2338.32	-2786.06	3151620.02	1396384.40	40°25'12.716"N	104°57'19.577"W
Facility Reference Pt			3154420.53	1394063.64	40°24'49.612"N	104°56'43.555"W
Field Reference Pt			3154420.53	1394063.64	40°24'49.612"N	104°56'43.555"W

## WELLPATH DATUM

Calculation method	Minimum curvature	XTREME 6 (RKB) to Facility Vertical Datum	4996.00ft
Horizontal Reference Pt	Slot	XTREME 6 (RKB) to Mean Sea Level	4996.00ft
Vertical Reference Pt	XTREME 6 (RKB)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	XTREME 6 (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	266.01°



# Actual Wellpath Report

ENCORE 4-12 AWP

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## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#21 ENCORE 4-12 (490'FNL & 2410'FWL)
Area	COLORADO	Well	ENCORE 4-12
Field	LARIMER COUNTY	Wellbore	ENCORE 4-12 AWB
Facility	SEC.12-T5N-R68W		

## WELLPATH DATA (94 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00†	0.000	302.000	0.00	0.00	0.00	0.00	0.00	
16.00	0.000	302.000	16.00	0.00	0.00	0.00	0.00	
161.00	0.400	302.000	161.00	0.41	0.27	-0.43	0.28	
251.00	1.300	290.300	250.99	1.59	0.79	-1.65	1.01	
344.00	3.500	267.400	343.90	5.39	1.03	-5.48	2.53	
437.00	6.600	262.500	436.53	13.57	0.20	-13.62	3.36	
525.00	8.800	264.600	523.73	25.35	-1.09	-25.33	2.52	
613.00	10.200	272.300	610.53	39.82	-1.41	-39.82	2.15	
703.00	10.700	273.400	699.03	56.03	-0.60	-56.12	0.60	
791.00	10.900	279.400	785.48	72.22	1.24	-72.49	1.30	
880.00	10.600	279.400	872.92	88.37	3.96	-88.87	0.34	
939.00	10.200	279.700	930.95	98.73	5.72	-99.37	0.68	
1021.00	10.300	279.000	1011.64	112.93	8.09	-113.77	0.19	
1065.00	11.400	279.400	1054.85	120.99	9.42	-121.94	2.51	
1154.00	11.500	274.600	1142.08	138.32	11.57	-139.46	1.08	
1241.00	12.700	273.000	1227.15	156.39	12.76	-157.66	1.43	
1332.00	14.600	274.500	1315.57	177.66	14.19	-179.08	2.12	
1422.00	16.400	273.000	1402.30	201.49	15.74	-203.08	2.05	
1513.00	18.200	269.000	1489.18	228.44	16.16	-230.12	2.37	
1600.00	20.000	269.000	1571.39	256.87	15.67	-258.59	2.07	
1691.00	21.000	267.800	1656.62	288.71	14.77	-290.44	1.19	
1780.00	21.500	267.000	1739.57	320.95	13.30	-322.66	0.65	
1869.00	22.000	265.000	1822.24	353.93	11.00	-355.56	1.00	
1958.00	23.300	262.900	1904.37	388.17	7.37	-389.63	1.72	
2047.00	22.800	261.400	1986.27	422.94	2.61	-424.15	0.87	
2137.00	22.900	260.700	2069.20	457.75	-2.82	-458.67	0.32	
2228.00	22.100	261.100	2153.28	492.44	-8.33	-493.06	0.90	
2317.00	22.600	264.600	2235.59	526.22	-12.53	-526.62	1.60	
2407.00	24.500	266.400	2318.10	562.17	-15.33	-562.47	2.26	
2496.00	25.800	267.400	2398.66	599.99	-17.37	-600.24	1.54	
2585.00	25.500	267.400	2478.89	638.50	-19.12	-638.72	0.34	
2676.00	23.300	267.800	2561.75	676.08	-20.70	-676.28	2.42	
2767.00	24.500	269.900	2644.95	712.89	-21.42	-713.13	1.62	
2857.00	24.600	268.100	2726.82	750.23	-22.07	-750.52	0.84	
2947.00	23.100	264.300	2809.13	786.60	-24.45	-786.81	2.39	
3034.00	22.900	264.600	2889.22	820.59	-27.74	-820.65	0.27	
3123.00	22.700	262.900	2971.26	855.04	-31.49	-854.93	0.77	
3212.00	23.600	266.000	3053.10	890.01	-34.85	-889.74	1.70	
3300.00	24.200	267.100	3133.55	925.66	-37.00	-925.33	0.85	
3389.00	21.900	264.900	3215.44	960.50	-39.39	-960.08	2.76	
3477.00	22.000	265.000	3297.06	993.39	-42.29	-992.85	0.12	
3567.00	22.200	263.200	3380.45	1027.22	-45.77	-1026.53	0.78	
3656.00	22.700	265.600	3462.71	1061.19	-49.08	-1060.35	1.17	
3745.00	22.300	263.600	3544.94	1095.23	-52.28	-1094.25	0.97	
3832.00	22.500	263.600	3625.37	1128.36	-55.98	-1127.20	0.23	



# Actual Wellpath Report

ENCORE 4-12 AWP

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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#21 ENCORE 4-12 (490'FNL & 2410'FWL)
Area	COLORADO	Well	ENCORE 4-12
Field	LARIMER COUNTY	Wellbore	ENCORE 4-12 AWB
Facility	SEC.12-T5N-R68W		

## WELLPATH DATA (94 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
3919.00	22.800	263.000	3705.66	1161.82	-59.89	-1160.47	0.44	
4007.00	24.100	260.000	3786.39	1196.72	-65.08	-1195.09	2.01	
4096.00	25.100	260.000	3867.32	1233.57	-71.52	-1231.58	1.12	
4186.00	23.000	260.400	3949.50	1270.05	-77.77	-1267.72	2.34	
4277.00	23.000	266.400	4033.28	1305.53	-81.85	-1302.99	2.58	
4366.00	24.000	270.000	4114.90	1340.98	-82.94	-1338.45	1.97	
4457.00	25.100	268.100	4197.67	1378.73	-83.58	-1376.25	1.49	
4544.00	25.200	267.800	4276.42	1415.68	-84.90	-1413.20	0.19	
4633.00	24.000	266.400	4357.34	1452.72	-86.77	-1450.20	1.50	
4722.00	22.000	264.300	4439.27	1487.48	-89.56	-1484.85	2.43	
4811.00	20.700	263.200	4522.16	1519.86	-93.08	-1517.06	1.53	
4898.00	19.000	261.100	4603.99	1549.33	-97.09	-1546.32	2.12	
4987.00	20.700	260.400	4687.70	1579.42	-101.95	-1576.15	1.93	
5076.00	18.600	260.000	4771.51	1609.20	-107.04	-1605.64	2.36	
5164.00	15.100	261.100	4855.72	1634.58	-111.25	-1630.79	3.99	
5252.00	13.600	264.200	4940.97	1656.34	-114.07	-1652.41	1.91	
5338.00	11.700	265.000	5024.88	1675.17	-115.85	-1671.16	2.22	
5428.00	9.600	263.600	5113.32	1691.79	-117.49	-1687.71	2.35	
5515.00	8.000	263.200	5199.30	1705.09	-119.01	-1700.93	1.84	
5605.00	6.600	261.400	5288.57	1716.50	-120.53	-1712.26	1.58	
5696.00	5.500	257.600	5379.06	1726.03	-122.25	-1721.69	1.29	
5785.00	4.500	245.300	5467.72	1733.51	-124.62	-1729.03	1.64	
5874.00	1.800	244.000	5556.58	1738.08	-126.69	-1733.46	3.03	
5962.00	1.400	238.000	5644.54	1740.31	-127.87	-1735.62	0.49	
6051.00	1.200	232.000	5733.52	1742.04	-129.02	-1737.27	0.27	
6140.00	1.200	229.500	5822.50	1743.56	-130.20	-1738.72	0.06	
6229.00	1.100	246.000	5911.48	1745.11	-131.15	-1740.20	0.39	
6316.00	1.100	231.600	5998.47	1746.59	-132.01	-1741.62	0.32	
6407.00	0.300	125.400	6089.46	1747.12	-132.69	-1742.11	1.34	
6495.00	0.300	167.200	6177.46	1746.91	-133.05	-1741.87	0.24	
6584.00	0.500	187.600	6266.46	1746.95	-133.66	-1741.87	0.27	
6672.00	0.600	201.000	6354.45	1747.22	-134.47	-1742.09	0.18	
6760.00	0.700	227.700	6442.45	1747.84	-135.26	-1742.65	0.36	
6849.00	0.800	244.600	6531.44	1748.85	-135.89	-1743.61	0.27	
6938.00	0.800	237.900	6620.43	1749.97	-136.49	-1744.70	0.11	
7028.00	1.100	252.000	6710.42	1751.36	-137.09	-1746.06	0.42	
7115.00	1.000	265.000	6797.41	1752.93	-137.42	-1747.61	0.30	
7204.00	0.800	244.900	6886.39	1754.29	-137.75	-1748.94	0.42	
7293.00	0.700	238.900	6975.39	1755.35	-138.29	-1749.97	0.14	
7384.00	0.600	200.300	7066.38	1756.04	-139.03	-1750.61	0.48	
7473.00	0.500	197.500	7155.38	1756.38	-139.83	-1750.89	0.12	
7563.00	0.300	204.800	7245.38	1756.64	-140.42	-1751.11	0.23	
7651.00	0.400	234.000	7333.37	1757.01	-140.81	-1751.45	0.23	
7742.00	0.700	214.000	7424.37	1757.62	-141.46	-1752.02	0.39	
7832.00	1.000	218.600	7514.36	1758.49	-142.53	-1752.82	0.34	



# Actual Wellpath Report

ENCORE 4-12 AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#21 ENCORE 4-12 (490'FNL & 2410'FWL)
Area	COLORADO	Well	ENCORE 4-12
Field	LARIMER COUNTY	Wellbore	ENCORE 4-12 AWB
Facility	SEC.12-T5N-R68W		

WELLPATH DATA (94 stations)								
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
7920.00	1.000	220.000	7602.35	1759.54	-143.72	-1753.79	0.03	
8006.00	1.000	215.400	7688.33	1760.54	-144.90	-1754.71	0.09	
8138.00	1.100	218.200	7820.31	1762.12	-146.84	-1756.16	0.09	LAST BHI MWD SURVEY
8188.00	1.100	218.200	7870.30	1762.77	-147.59	-1756.75	0.00	PROJECTION TO BIT

HOLE & CASING SECTIONS Ref Wellbore: ENCORE 4-12 AWB Ref Wellpath: ENCORE 4-12 AWP									
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]
12.25in Open Hole	16.00	994.00	978.00	16.00	985.07	0.00	0.00	7.33	-109.01
8.625in Casing Surface	16.00	973.00	957.00	16.00	964.41	0.00	0.00	6.72	-105.32
7.875in Open Hole	973.00	8188.00	7215.00	964.41	7870.30	6.72	-105.32	-147.59	-1756.75

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
ENCORE 4-12 GEO TARGET 50' RADIUS (660'FNL & 660'FWL, REV-1)		6000.00	-122.35	-1752.22	3149868.65	1396251.30	40°25'11.507"N	104°57'42.232"W	circle
ENCORE 4-12 LEGAL BOX (200'N,200'S,239'E,161'W OF GEO TARGET)		6000.00	-122.35	-1713.22	3149907.65	1396251.54	40°25'11.507"N	104°57'41.727"W	square

WELLPATH COMPOSITION Ref Wellbore: ENCORE 4-12 AWB Ref Wellpath: ENCORE 4-12 AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	939.00	NaviTrak (Standard)	BHI MWD SURVEY 12.25 HOLE <161-939>	ENCORE 4-12 AWB
939.00	8138.00	NaviTrak (Standard)	BHI MWD SURVEY 7.875 HOLE <1021-8138>	ENCORE 4-12 AWB
8138.00	8188.00	Blind Drilling (std)	Projection to bit	ENCORE 4-12 AWB



# Actual Wellpath Report

ENCORE 4-12 AWP

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INTEQ

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#21 ENCORE 4-12 (490'FNL & 2410'FWL)
Area	COLORADO	Well	ENCORE 4-12
Field	LARIMER COUNTY	Wellbore	ENCORE 4-12 AWB
Facility	SEC.12-T5N-R68W		

## WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
8138.00	1.100	218.200	7820.31	LAST BHI MWD SURVEY
8188.00	1.100	218.200	7870.30	PROJECTION TO BIT