

Departure Energy Services (US) LP  
Phone: 307.265.2231  
Fax: 307.472.5064  
[www.departureus.com](http://www.departureus.com)



**Departure**  
Energy Services (US) LP

## **Laramie Energy II, LLC**

**MESA CO**

**Sec30-T9S-R93W (Bruton 30-06B)**

**Bruton 30-06B**

**DD**

**Plan: Plan #1**

## **Planning Report**

**14 July, 2010**

# Laramie Energy II, LLC

Site: Sec30-T9S-R93W (Bruton 30-06B)  
Well: Bruton 30-06B  
Wellbore: DD  
Design: Plan #1

## Reference Details - WELL CENTRE

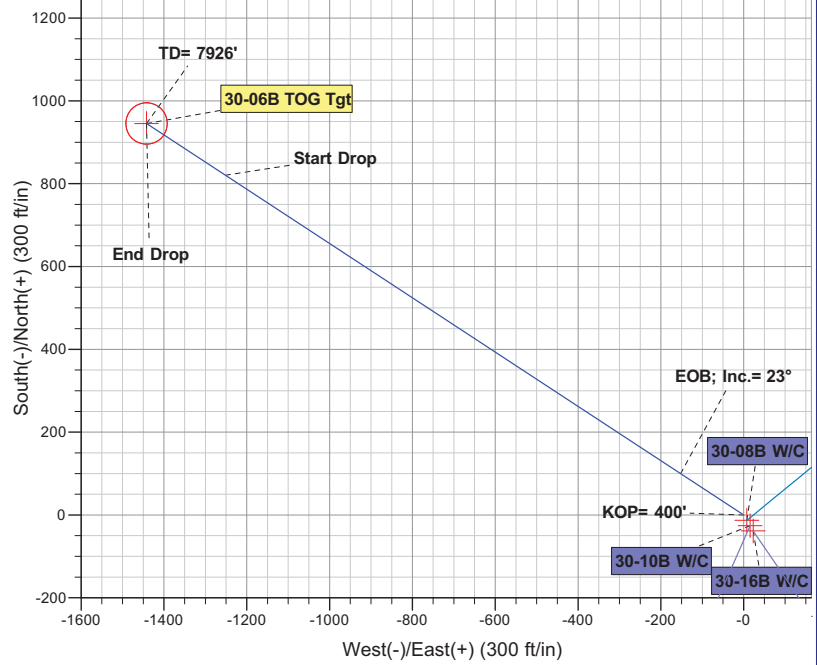
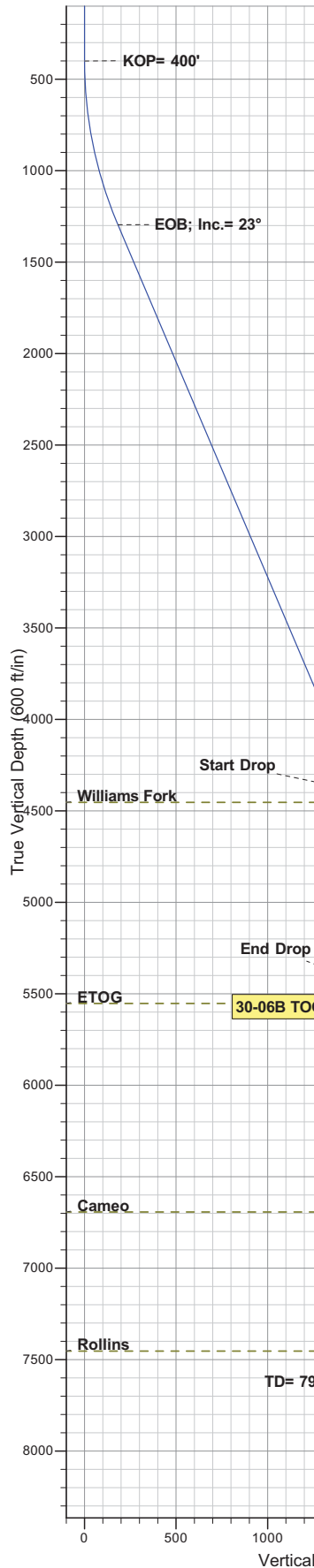
Geodetic System: Universal Transverse Mercator  
Ellipsoid: GRS 1980  
Zone: Zone 13N (108 W to 102 W)  
Northing: 4348038.46  
Easting: 257623.37  
Latitude: 39° 14' 52.159 N  
Longitude: 107° 48' 31.216 W  
Grid Convergence: 1.78° East  
Ground Elevation: 7649.50  
KB Elevation: Est. KB @ 7668.00ft



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## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	
3	1320.00	23.00	303.25	1295.49	99.89	-152.37	2.50	303.25	182.19	
4	4683.78	23.00	303.25	4391.87	820.48	-1251.56	0.00	0.00	1496.52	
5	5833.78	0.00	0.00	5511.23	945.34	-1442.02	2.00	180.00	1724.26	
6	5875.55	0.00	0.00	5553.00	945.34	-1442.02	0.00	0.00	1724.26	30-06B TOG Tgt
7	7925.55	0.00	0.00	7603.00	945.34	-1442.02	0.00	0.00	1724.26	



Azimuths to True North  
Magnetic North: 10.35°  
Magnetic Field  
Strength: 52218.7nT  
Dip Angle: 65.59°  
Date: 7/14/2010  
Model: IGRF2010

## ANNOTATIONS

TVD	MD	Annotation
400.00	400.00	KOP= 400'
1295.49	1320.00	EOB; Inc.= 23°
4391.87	4683.78	Start Drop
5511.23	5833.78	End Drop
7602.99	7925.54	TD= 7926'

## FORMATION TOP DETAILS

TVDPath	MDPath	Formation
4453.00	4749.88	Williams Fork
5553.00	5875.55	ETOG
6693.00	7015.55	Cameo
7453.00	7775.55	Rollins

<b>Database:</b>	EDM 2003.21 DB	<b>Local Co-ordinate Reference:</b>	Well Bruton 30-06B
<b>Company:</b>	Laramie Energy II, LLC	<b>TVD Reference:</b>	Est. KB @ 7668.00ft
<b>Project:</b>	MESA CO	<b>MD Reference:</b>	Est. KB @ 7668.00ft
<b>Site:</b>	Sec30-T9S-R93W (Bruton 30-06B)	<b>North Reference:</b>	True
<b>Well:</b>	Bruton 30-06B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

<b>Project</b>	MESA CO		
<b>Map System:</b>	Universal Transverse Mercator	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	NAD83 Colorado - HARN		
<b>Map Zone:</b>	Zone 13N (108 W to 102 W)		

Site	Sec30-T9S-R93W (Bruton 30-06B)				
Site Position:		Northing:	4,348,038.46 m	Latitude:	39° 14' 52.159 N
From:	Lat/Long	Easting:	257,623.37 m	Longitude:	107° 48' 31.216 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	-1.78 °

Well	Bruton 30-06B					
Well Position	+N/-S	0.00 ft	Northing:	4,348,038.46 m	Latitude:	39° 14' 52.159 N
	+E/-W	0.00 ft	Easting:	257,623.37 m	Longitude:	107° 48' 31.216 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	7,649.50 ft

<b>Wellbore</b>	DD				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	7/14/2010	10.35	65.59	52,219

<b>Design</b>	Plan #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PLAN	<b>Tie On Depth:</b>	0.00
<b>Vertical Section:</b>	<b>Depth From (TVD) (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Direction (°)</b>
	0.00	0.00	0.00	303.25

<b>Plan Sections</b>											
MD (ft)	Inc (°)	Azi (°)	TVD (ft)	SS (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	-7,668.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.00	0.00	0.00	400.00	-7,268.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,320.00	23.00	303.25	1,295.49	-6,372.51	99.89	-152.37	2.50	2.50	0.00	303.25	
4,683.78	23.00	303.25	4,391.87	-3,276.13	820.48	-1,251.56	0.00	0.00	0.00	0.00	
5,833.78	0.00	0.00	5,511.23	-2,156.77	945.34	-1,442.02	2.00	-2.00	0.00	180.00	
5,875.55	0.00	0.00	5,553.00	-2,115.00	945.34	-1,442.02	0.00	0.00	0.00	0.00	30-06B TOG Tgt
7,925.55	0.00	0.00	7,603.00	-65.00	945.34	-1,442.02	0.00	0.00	0.00	0.00	

<b>Database:</b>	EDM 2003.21 DB	<b>Local Co-ordinate Reference:</b>	Well Bruton 30-06B
<b>Company:</b>	Laramie Energy II, LLC	<b>TVD Reference:</b>	Est. KB @ 7668.00ft
<b>Project:</b>	MESA CO	<b>MD Reference:</b>	Est. KB @ 7668.00ft
<b>Site:</b>	Sec30-T9S-R93W (Bruton 30-06B)	<b>North Reference:</b>	True
<b>Well:</b>	Bruton 30-06B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	SS (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
300.00	0.00	0.00	300.00	7,368.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>KOP= 400'</b>										
400.00	0.00	0.00	400.00	7,268.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	2.50	303.25	499.97	7,168.03	1.20	-1.82	2.18	2.50	2.50	0.00
600.00	5.00	303.25	599.75	7,068.25	4.78	-7.29	8.72	2.50	2.50	0.00
700.00	7.50	303.25	699.14	6,968.86	10.75	-16.40	19.61	2.50	2.50	0.00
800.00	10.00	303.25	797.97	6,870.03	19.09	-29.12	34.82	2.50	2.50	0.00
900.00	12.50	303.25	896.04	6,771.96	29.78	-45.43	54.33	2.50	2.50	0.00
1,000.00	15.00	303.25	993.17	6,674.83	42.81	-65.31	78.09	2.50	2.50	0.00
1,100.00	17.50	303.25	1,089.17	6,578.83	58.16	-88.71	106.07	2.50	2.50	0.00
1,200.00	20.00	303.25	1,183.85	6,484.15	75.78	-115.59	138.21	2.50	2.50	0.00
1,300.00	22.50	303.25	1,277.05	6,390.95	95.65	-145.90	174.46	2.50	2.50	0.00
<b>EOB; Inc.= 23°</b>										
1,320.00	23.00	303.25	1,295.49	6,372.51	99.89	-152.37	182.19	2.50	2.50	0.00
1,400.00	23.00	303.25	1,369.13	6,298.87	117.02	-178.51	213.45	0.00	0.00	0.00
1,500.00	23.00	303.25	1,461.18	6,206.82	138.45	-211.19	252.52	0.00	0.00	0.00
<b>Surf. Csg.</b>										
1,542.17	23.00	303.25	1,500.00	6,168.00	147.48	-224.97	269.00	0.00	0.00	0.00
1,600.00	23.00	303.25	1,553.23	6,114.77	159.87	-243.86	291.59	0.00	0.00	0.00
1,700.00	23.00	303.25	1,645.28	6,022.72	181.29	-276.54	330.67	0.00	0.00	0.00
1,800.00	23.00	303.25	1,737.33	5,930.67	202.71	-309.22	369.74	0.00	0.00	0.00
1,900.00	23.00	303.25	1,829.38	5,838.62	224.13	-341.89	408.81	0.00	0.00	0.00
2,000.00	23.00	303.25	1,921.43	5,746.57	245.56	-374.57	447.89	0.00	0.00	0.00
2,100.00	23.00	303.25	2,013.48	5,654.52	266.98	-407.25	486.96	0.00	0.00	0.00
2,200.00	23.00	303.25	2,105.53	5,562.47	288.40	-439.93	526.03	0.00	0.00	0.00
2,300.00	23.00	303.25	2,197.58	5,470.42	309.82	-472.60	565.11	0.00	0.00	0.00
2,400.00	23.00	303.25	2,289.64	5,378.36	331.25	-505.28	604.18	0.00	0.00	0.00
2,500.00	23.00	303.25	2,381.69	5,286.31	352.67	-537.96	643.25	0.00	0.00	0.00
2,600.00	23.00	303.25	2,473.74	5,194.26	374.09	-570.64	682.33	0.00	0.00	0.00
2,700.00	23.00	303.25	2,565.79	5,102.21	395.51	-603.31	721.40	0.00	0.00	0.00
2,800.00	23.00	303.25	2,657.84	5,010.16	416.93	-635.99	760.47	0.00	0.00	0.00
2,900.00	23.00	303.25	2,749.89	4,918.11	438.36	-668.67	799.54	0.00	0.00	0.00
3,000.00	23.00	303.25	2,841.94	4,826.06	459.78	-701.34	838.62	0.00	0.00	0.00
3,100.00	23.00	303.25	2,933.99	4,734.01	481.20	-734.02	877.69	0.00	0.00	0.00
3,200.00	23.00	303.25	3,026.04	4,641.96	502.62	-766.70	916.76	0.00	0.00	0.00
3,300.00	23.00	303.25	3,118.09	4,549.91	524.04	-799.38	955.84	0.00	0.00	0.00
3,400.00	23.00	303.25	3,210.14	4,457.86	545.47	-832.05	994.91	0.00	0.00	0.00
3,500.00	23.00	303.25	3,302.19	4,365.81	566.89	-864.73	1,033.98	0.00	0.00	0.00
3,600.00	23.00	303.25	3,394.24	4,273.76	588.31	-897.41	1,073.06	0.00	0.00	0.00
3,700.00	23.00	303.25	3,486.29	4,181.71	609.73	-930.09	1,112.13	0.00	0.00	0.00
3,800.00	23.00	303.25	3,578.34	4,089.66	631.15	-962.76	1,151.20	0.00	0.00	0.00
3,900.00	23.00	303.25	3,670.39	3,997.61	652.58	-995.44	1,190.28	0.00	0.00	0.00
4,000.00	23.00	303.25	3,762.44	3,905.56	674.00	-1,028.12	1,229.35	0.00	0.00	0.00
4,100.00	23.00	303.25	3,854.49	3,813.51	695.42	-1,060.79	1,268.42	0.00	0.00	0.00
4,200.00	23.00	303.25	3,946.54	3,721.46	716.84	-1,093.47	1,307.50	0.00	0.00	0.00
4,300.00	23.00	303.25	4,038.59	3,629.41	738.27	-1,126.15	1,346.57	0.00	0.00	0.00
4,400.00	23.00	303.25	4,130.64	3,537.36	759.69	-1,158.83	1,385.64	0.00	0.00	0.00
4,500.00	23.00	303.25	4,222.70	3,445.30	781.11	-1,191.50	1,424.71	0.00	0.00	0.00
4,600.00	23.00	303.25	4,314.75	3,353.25	802.53	-1,224.18	1,463.79	0.00	0.00	0.00
<b>Start Drop</b>										
4,683.78	23.00	303.25	4,391.87	3,276.13	820.48	-1,251.56	1,496.52	0.00	0.00	0.00

<b>Database:</b>	EDM 2003.21 DB	<b>Local Co-ordinate Reference:</b>	Well Bruton 30-06B
<b>Company:</b>	Laramie Energy II, LLC	<b>TVD Reference:</b>	Est. KB @ 7668.00ft
<b>Project:</b>	MESA CO	<b>MD Reference:</b>	Est. KB @ 7668.00ft
<b>Site:</b>	Sec30-T9S-R93W (Bruton 30-06B)	<b>North Reference:</b>	True
<b>Well:</b>	Bruton 30-06B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

Planned Survey

MD (ft)	Inc (°)	Azi (°)	TVD (ft)	SS (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,700.00	22.68	303.25	4,406.81	3,261.19	823.93	-1,256.82	1,502.82	2.00	-2.00	0.00
<b>Williams Fork</b>										
4,749.88	21.68	303.25	4,453.00	3,215.00	834.25	-1,272.57	1,521.64	2.00	-2.00	0.00
4,800.00	20.68	303.25	4,499.74	3,168.26	844.18	-1,287.71	1,539.75	2.00	-2.00	0.00
4,900.00	18.68	303.25	4,593.89	3,074.11	862.64	-1,315.87	1,573.42	2.00	-2.00	0.00
5,000.00	16.68	303.25	4,689.17	2,978.83	879.28	-1,341.26	1,603.78	2.00	-2.00	0.00
5,100.00	14.68	303.25	4,785.44	2,882.56	894.10	-1,363.85	1,630.80	2.00	-2.00	0.00
5,200.00	12.68	303.25	4,882.61	2,785.39	907.06	-1,383.62	1,654.44	2.00	-2.00	0.00
5,300.00	10.68	303.25	4,980.53	2,687.47	918.15	-1,400.55	1,674.68	2.00	-2.00	0.00
5,400.00	8.68	303.25	5,079.10	2,588.90	927.37	-1,414.60	1,691.48	2.00	-2.00	0.00
5,500.00	6.68	303.25	5,178.20	2,489.80	934.69	-1,425.77	1,704.84	2.00	-2.00	0.00
5,600.00	4.68	303.25	5,277.71	2,390.29	940.11	-1,434.04	1,714.73	2.00	-2.00	0.00
5,700.00	2.68	303.25	5,377.50	2,290.50	943.62	-1,439.40	1,721.14	2.00	-2.00	0.00
5,800.00	0.68	303.25	5,477.45	2,190.55	945.23	-1,441.85	1,724.06	2.00	-2.00	0.00
<b>End Drop</b>										
5,833.78	0.00	0.00	5,511.23	2,156.77	945.34	-1,442.02	1,724.26	2.00	-2.00	168.01
<b>ETOG - 30-06B TOG Tgt</b>										
5,875.55	0.00	0.00	5,553.00	2,115.00	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
5,900.00	0.00	0.00	5,577.45	2,090.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
6,000.00	0.00	0.00	5,677.45	1,990.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
6,100.00	0.00	0.00	5,777.45	1,890.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
6,200.00	0.00	0.00	5,877.45	1,790.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
6,300.00	0.00	0.00	5,977.45	1,690.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
6,400.00	0.00	0.00	6,077.45	1,590.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
6,500.00	0.00	0.00	6,177.45	1,490.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
6,600.00	0.00	0.00	6,277.45	1,390.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
6,700.00	0.00	0.00	6,377.45	1,290.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
6,800.00	0.00	0.00	6,477.45	1,190.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
6,900.00	0.00	0.00	6,577.45	1,090.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
7,000.00	0.00	0.00	6,677.45	990.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
<b>Cameo</b>										
7,015.55	0.00	0.00	6,693.00	975.00	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
7,100.00	0.00	0.00	6,777.45	890.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
7,200.00	0.00	0.00	6,877.45	790.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
7,300.00	0.00	0.00	6,977.45	690.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
7,400.00	0.00	0.00	7,077.45	590.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
7,500.00	0.00	0.00	7,177.45	490.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
7,600.00	0.00	0.00	7,277.45	390.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
7,700.00	0.00	0.00	7,377.45	290.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
<b>Rollins</b>										
7,775.55	0.00	0.00	7,453.00	215.00	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
7,800.00	0.00	0.00	7,477.45	190.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
7,900.00	0.00	0.00	7,577.45	90.55	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
<b>TD= 7926'</b>										
7,925.54	0.00	0.00	7,602.99	65.01	945.34	-1,442.02	1,724.26	0.00	0.00	0.00
7,925.55	0.00	0.00	7,603.00	65.00	945.34	-1,442.02	1,724.26	0.00	0.00	0.00



<b>Database:</b>	EDM 2003.21 DB	<b>Local Co-ordinate Reference:</b>	Well Bruton 30-06B
<b>Company:</b>	Laramie Energy II, LLC	<b>TVD Reference:</b>	Est. KB @ 7668.00ft
<b>Project:</b>	MESA CO	<b>MD Reference:</b>	Est. KB @ 7668.00ft
<b>Site:</b>	Sec30-T9S-R93W (Bruton 30-06B)	<b>North Reference:</b>	True
<b>Well:</b>	Bruton 30-06B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	DD		
<b>Design:</b>	Plan #1		

Targets										
Target Name - hit/miss target - Shape	Dip Angle	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (m)	Easting (m)	Latitude	Longitude	
30-08B W/C - plan misses target center by 300.38ft at 300.00ft MD (300.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	-13.08	7.68	4,348,034.41	257,625.58	39° 14' 52.030 N	107° 48' 31.118 W	
30-06B TOG Tat - plan hits target center - Circle (radius 50.00)	0.00	0.00	5,553.00	945.34	-1,442.02	4,348,340.10	257,192.99	39° 15' 1.499 N	107° 48' 49.540 W	
30-16B W/C - plan misses target center by 303.34ft at 300.00ft MD (300.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	-38.58	22.95	4,348,026.49	257,629.99	39° 14' 51.778 N	107° 48' 30.924 W	
30-10B W/C - plan misses target center by 301.50ft at 300.00ft MD (300.00 TVD, 0.00 N, 0.00 E) - Point	0.00	0.00	0.00	-25.83	15.31	4,348,030.45	257,627.79	39° 14' 51.904 N	107° 48' 31.021 W	

Casing Points					
MD (ft)	TVD (ft)	Name	Casing Diameter (in)	Hole Diameter (in)	
1,542.17	1,500.00	Surf. Csg.			

Formations						
MD (ft)	TVD (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
4,749.88	4,453.00	Williams Fork		0.00		
5,875.55	5,553.00	ETOG		0.00		
7,015.55	6,693.00	Cameo		0.00		
7,775.55	7,453.00	Rollins		0.00		

Plan Annotations					
MD (ft)	TVD (ft)	Local Coordinates		Comment	
		+N/-S (ft)	+E/-W (ft)		
400.00	400.00	0.00	0.00	KOP= 400'	
1,320.00	1,295.49	99.89	-152.37	EOB; Inc.= 23°	
4,683.78	4,391.87	820.48	-1,251.56	Start Drop	
5,833.78	5,511.23	945.34	-1,442.02	End Drop	
7,925.54	7,602.99	945.34	-1,442.02	TD= 7926'	

<b>Company:</b>	Laramie Energy II, LLC	<b>Local Co-ordinate Reference:</b>	Well Bruton 30-06B
<b>Project:</b>	MESA CO	<b>TVD Reference:</b>	Est. KB @ 7668.00ft
<b>Reference Site:</b>	Sec30-T9S-R93W (Bruton 30-06B)	<b>MD Reference:</b>	Est. KB @ 7668.00ft
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bruton 30-06B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

Reference	Plan #1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 50.00ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 150.00ft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma		

Risk Settings		
Vertical Depth for Analysis:	ft	(Below TVD Reference Datum)
Level of Acceptable Risk (1 in):		
Minimum Separation:	0 ft	

Survey Tool Program		Date	7/14/2010		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	7,925.55	Plan #1 (DD)	MWD	MWD - Standard	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec30-T9S-R93W (Bruton 30-06B)						
Bruton 30-08B - DD - Plan #1	400.00	400.00	15.16	13.63	9.896 CC, ES	
Bruton 30-08B - DD - Plan #1	500.00	499.99	17.07	15.09	8.629 SF	
Bruton 30-10B - DD - Plan #1	400.00	400.00	30.03	28.50	19.645 CC, ES	
Bruton 30-10B - DD - Plan #1	550.00	549.89	34.50	32.30	15.645 SF	
Bruton 30-16B - DD - Plan #1	250.00	250.00	44.89	44.03	52.268 CC, ES	
Bruton 30-16B - DD - Plan #1	500.00	494.17	59.71	57.75	30.523 SF	

Offset Design		Sec30-T9S-R93W (Bruton 30-06B) - Bruton 30-08B - DD - Plan #1											Offset Site Error:		0.00 ft	
Survey Program:		0-MWD											Offset Well Error:		0.00 ft	
Reference		Offset		Semi Major Axis		Distance							Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision				
0.00	0.00	0.00	0.00	0.00	0.00	149.58	15.16									
50.00	50.00	50.00	50.00	0.04	0.05	149.58	15.16	15.08	0.08	185.991						
100.00	100.00	100.00	100.00	0.09	0.09	149.58	15.16	14.98	0.18	82.479						
150.00	150.00	150.00	150.00	0.20	0.20	149.58	15.16	14.76	0.41	37.111						
200.00	200.00	200.00	200.00	0.32	0.32	149.58	15.16	14.53	0.63	23.942						
250.00	250.00	250.00	250.00	0.43	0.43	149.58	15.16	14.31	0.86	17.671						
300.00	300.00	300.00	300.00	0.54	0.54	149.58	15.16	14.08	1.08	14.003						
350.00	350.00	350.00	350.00	0.65	0.65	149.58	15.16	13.86	1.31	11.596						
400.00	400.00	400.00	400.00	0.77	0.77	149.58	15.16	13.63	1.53	9.896			CC, ES			
450.00	450.00	450.02	450.02	0.88	0.88	-155.29	15.63	13.87	1.76	8.902						
500.00	499.97	499.99	499.98	0.99	0.99	-161.02	17.07	15.09	1.98	8.629			SF			
550.00	549.89	549.84	549.79	1.10	1.10	-169.09	19.79	17.58	2.20	8.977						
600.00	599.75	599.48	599.35	1.22	1.21	-177.34	24.10	21.67	2.43	9.922						
650.00	649.50	648.85	648.59	1.34	1.33	175.56	30.14	27.48	2.67	11.309						
700.00	699.14	697.89	697.43	1.47	1.44	169.97	37.94	35.04	2.90	13.099						
750.00	748.64	746.52	745.78	1.62	1.57	165.70	47.45	44.31	3.14	15.104						

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

<b>Company:</b>	Laramie Energy II, LLC	<b>Local Co-ordinate Reference:</b>	Well Bruton 30-06B
<b>Project:</b>	MESA CO	<b>TVD Reference:</b>	Est. KB @ 7668.00ft
<b>Reference Site:</b>	Sec30-T9S-R93W (Bruton 30-06B)	<b>MD Reference:</b>	Est. KB @ 7668.00ft
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bruton 30-06B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

<b>Offset Design</b> Sec30-T9S-R93W (Bruton 30-06B) - Bruton 30-08B - DD - Plan #1												<b>Offset Site Error:</b>	0.00 ft
Survey Program: 0-MWD												<b>Offset Well Error:</b>	0.00 ft
Reference		Offset		Semi Major Axis		Distance					Risked Separation Factor	Probability of Collision	Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
800.00	797.97	794.68	793.58	1.77	1.69	162.47	58.61	55.22	3.38	17.324			
850.00	847.11	842.32	840.75	1.94	1.83	159.99	71.37	67.73	3.64	19.602			
900.00	896.04	889.37	887.22	2.12	1.97	158.05	85.68	81.78	3.89	21.998			
950.00	944.74	935.79	932.94	2.33	2.13	156.51	101.51	97.34	4.17	24.356			
1,000.00	993.17	981.51	977.85	2.55	2.29	155.25	118.80	114.37	4.44	26.772			
1,050.00	1,041.32	1,026.50	1,021.89	2.80	2.45	154.20	137.54	132.82	4.73	29.094			





<b>Company:</b>	Laramie Energy II, LLC	<b>Local Co-ordinate Reference:</b>	Well Bruton 30-06B
<b>Project:</b>	MESA CO	<b>TVD Reference:</b>	Est. KB @ 7668.00ft
<b>Reference Site:</b>	Sec30-T9S-R93W (Bruton 30-06B)	<b>MD Reference:</b>	Est. KB @ 7668.00ft
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bruton 30-06B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance					Risked Separation Factor	Probability of Collision	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
0.00	0.00	0.00	0.00	0.00	0.00	149.34	30.03							
50.00	50.00	50.00	50.00	0.04	0.04	149.34	30.03	29.95	0.08	377.382				
100.00	100.00	100.00	100.00	0.09	0.09	149.34	30.03	29.85	0.18	166.887				
150.00	150.00	150.00	150.00	0.20	0.20	149.34	30.03	29.62	0.40	74.198				
200.00	200.00	200.00	200.00	0.32	0.31	149.34	30.03	29.40	0.63	47.703				
250.00	250.00	250.00	250.00	0.43	0.43	149.34	30.03	29.17	0.85	35.152				
300.00	300.00	300.00	300.00	0.54	0.54	149.34	30.03	28.95	1.08	27.829				
350.00	350.00	350.00	350.00	0.65	0.65	149.34	30.03	28.72	1.30	23.031				
400.00	400.00	400.00	400.00	0.77	0.76	149.34	30.03	28.50	1.53	19.645			CC, ES	
450.00	450.00	450.00	450.00	0.88	0.88	-154.36	30.52	28.77	1.75	17.409				
500.00	499.97	499.97	499.97	0.99	0.99	-155.61	32.00	30.02	1.98	16.181				
550.00	549.89	549.89	549.89	1.10	1.10	-157.45	34.50	32.30	2.21	15.645			SF	
600.00	599.75	599.75	599.75	1.22	1.21	-159.62	38.05	35.62	2.43	15.661				
650.00	649.50	649.50	649.50	1.34	1.32	-161.88	42.68	40.02	2.66	16.045				
700.00	699.14	699.14	699.14	1.47	1.44	-164.04	48.41	45.53	2.89	16.778				
750.00	748.64	748.64	748.64	1.62	1.55	-166.01	55.24	52.13	3.12	17.721				
800.00	797.97	797.97	797.97	1.77	1.66	-167.76	63.18	59.84	3.34	18.910				
850.00	847.11	847.11	847.11	1.94	1.77	-169.26	72.22	68.65	3.57	20.213				
900.00	896.04	896.04	896.04	2.12	1.88	-170.55	82.36	78.56	3.80	21.695				
950.00	944.74	944.74	944.74	2.33	1.99	-171.65	93.58	89.56	4.03	23.233				
1,000.00	993.17	993.17	993.17	2.55	2.10	-172.59	105.89	101.64	4.25	24.911				
1,050.00	1,041.32	1,041.32	1,041.32	2.80	2.20	-173.38	119.26	114.78	4.48	26.605				
1,100.00	1,089.17	1,089.17	1,089.17	3.06	2.31	-174.06	133.69	128.99	4.70	28.416				
1,150.00	1,136.68	1,136.68	1,136.68	3.35	2.42	-174.64	149.18	144.24	4.94	30.213				



<b>Company:</b>	Laramie Energy II, LLC	<b>Local Co-ordinate Reference:</b>	Well Bruton 30-06B
<b>Project:</b>	MESA CO	<b>TVD Reference:</b>	Est. KB @ 7668.00ft
<b>Reference Site:</b>	Sec30-T9S-R93W (Bruton 30-06B)	<b>MD Reference:</b>	Est. KB @ 7668.00ft
<b>Site Error:</b>	0.00ft	<b>North Reference:</b>	True
<b>Reference Well:</b>	Bruton 30-06B	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Well Error:</b>	0.00ft	<b>Output errors are at</b>	2.00 sigma
<b>Reference Wellbore</b>	DD	<b>Database:</b>	EDM 2003.21 DB
<b>Reference Design:</b>	Plan #1	<b>Offset TVD Reference:</b>	Reference Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 0-MWD													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis		Distance								Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Risked Separation Factor	Probability of Collision		
0.00	0.00	0.00	0.00	0.00	0.00	149.26	44.89							
50.00	50.00	50.00	50.00	0.04	0.05	149.26	44.89	44.81	0.08	548.294				
100.00	100.00	100.00	100.00	0.09	0.09	149.26	44.89	44.70	0.18	243.259				
150.00	150.00	150.00	150.00	0.20	0.21	149.26	44.89	44.48	0.41	109.674				
200.00	200.00	200.00	200.00	0.32	0.32	149.26	44.89	44.26	0.63	70.796				
250.00	250.00	250.00	250.00	0.43	0.43	149.26	44.89	44.03	0.86	52.268			CC, ES	
300.00	300.00	299.12	299.12	0.54	0.53	149.22	45.33	44.26	1.07	42.332				
350.00	350.00	348.11	348.09	0.65	0.63	149.11	46.84	45.56	1.28	36.567				
400.00	400.00	397.02	396.93	0.77	0.73	148.94	49.41	47.92	1.49	33.149				
450.00	450.00	445.76	445.54	0.88	0.84	-154.72	53.54	51.82	1.72	31.074				
500.00	499.97	494.17	493.74	0.99	0.95	-155.53	59.71	57.75	1.96	30.523			SF	
550.00	549.89	542.14	541.39	1.10	1.08	-156.53	67.92	65.72	2.20	30.888				
600.00	599.75	589.55	588.36	1.22	1.22	-157.58	78.16	75.73	2.44	32.091				
650.00	649.50	636.28	634.51	1.34	1.37	-158.59	90.42	87.74	2.68	33.702				
700.00	699.14	682.22	679.74	1.47	1.53	-159.50	104.66	101.74	2.92	35.808				
750.00	748.64	727.28	723.93	1.62	1.71	-160.30	120.85	117.68	3.17	38.097				
800.00	797.97	771.36	766.98	1.77	1.89	-160.97	138.95	135.54	3.41	40.719				