

Departure Energy Services (US) LP
Phone: 307.265.2231
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www.departureus.com



Departure
Energy Services (US) LP

Laramie Energy II, LLC

MESA CO

Sec 24-T9S-R95W (Hawxhurst 24-9 Pad)

Hawxhurst 24-07C (new target)

DD

Plan: Plan #2

Planning Report

03 September, 2010

Laramie Energy II, LLC

Site: Sec 24-T9S-R95W (Hawxhurst 24-9 Pad)
Well: Hawxhurst 24-07C (new target)
Wellbore: DD
Design: Plan #2

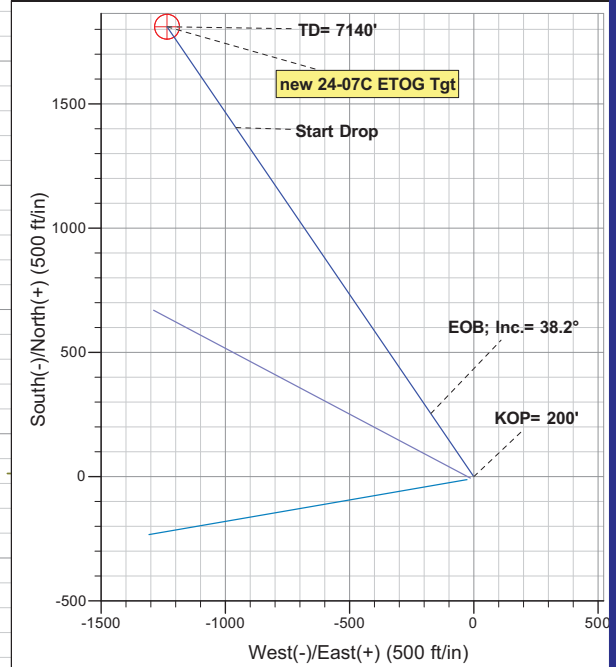
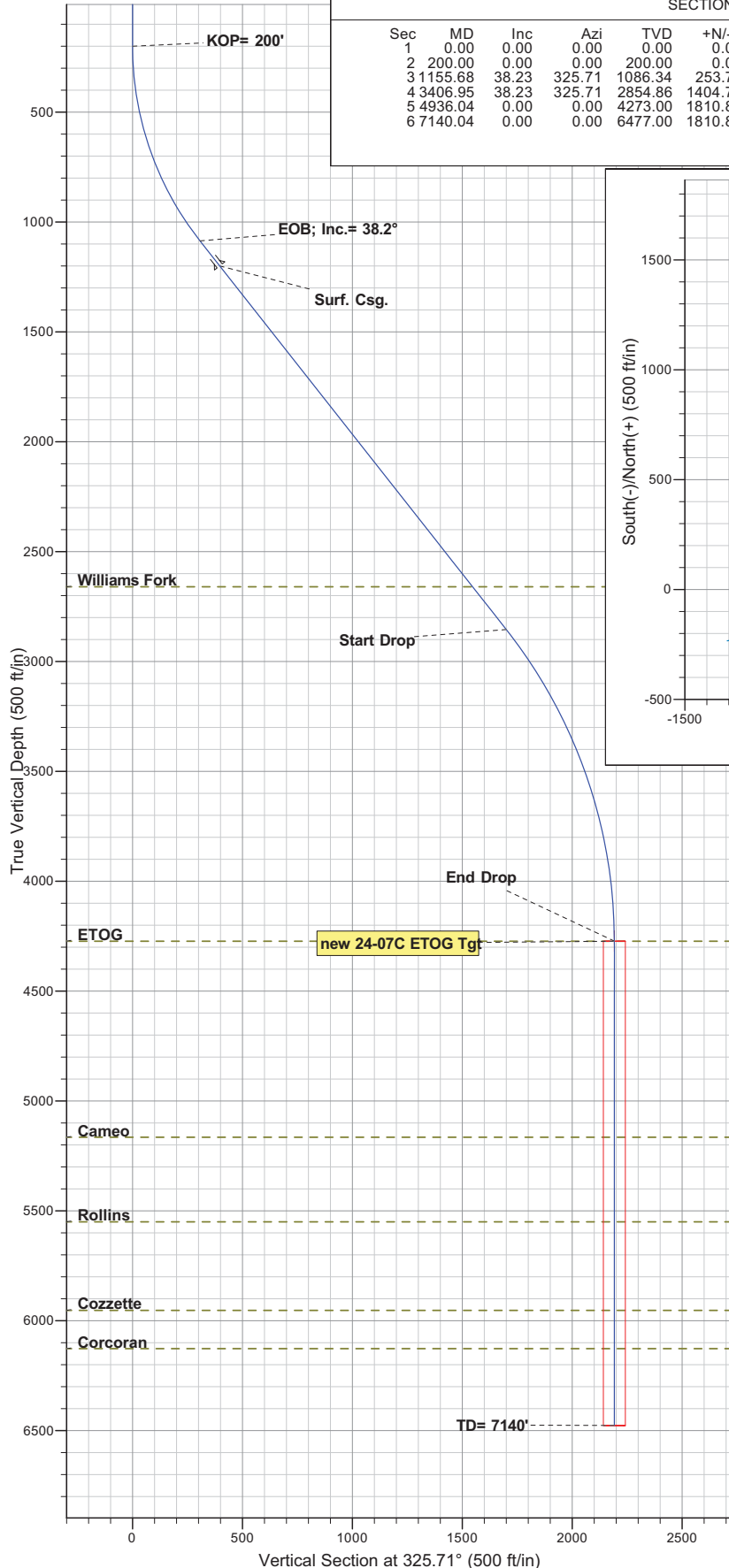
Reference Details - WELL CENTRE
Geodetic System: Universal Transverse Mercator
Ellipsoid: GRS 1980
Zone: Zone 13N (108 W to 102 W)
Northing: 4349673.90
Easting: 246712.24
Latitude: 39° 15' 33.923 N
Longitude: 107° 56' 8.059 W
Grid Convergence: 1.86° East
Ground Elevation: 6357.00
KB Elevation: Est. KB @ 6375.00ft



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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	200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	
3	1155.68	38.23	325.71	1086.34	253.78	-173.03	4.00	325.71	307.16	
4	3406.95	38.23	325.71	2854.86	1404.76	-957.78	0.00	0.00	1700.21	
5	4936.04	0.00	0.00	4273.00	1810.82	-1234.63	2.50	180.00	2191.66	new 24-07C ETOG Tgt
6	7140.04	0.00	0.00	6477.00	1810.82	-1234.63	0.00	0.00	2191.66	



Azimuths to True North
 Magnetic North: 10.39°
 Magnetic Field
 Strength: 52204.5snT
 Dip Angle: 65.58°
 Date: 9/3/2010
 Model: IGRF2010

ANNOTATIONS

TVD	MD	Annotation
200.00	200.00	KOP= 200'
1086.34	1155.68	EOB; Inc.= 38.2°
2854.85	3406.95	Start Drop
4273.00	4936.04	End Drop
6476.96	7140.00	TD= 7140'

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2660.00	3158.91	Williams Fork
4273.00	4936.04	ETOG
5165.00	5828.04	Cameo
5550.00	6213.04	Rollins
5953.00	6616.04	Cozzette
6127.00	6790.04	Corcoran



Database:	EDM 2003.21 DB	Local Co-ordinate Reference:	Well Hawxhurst 24-07C (new target)
Company:	Laramie Energy II, LLC	TVD Reference:	Est. KB @ 6375.00ft
Project:	MESA CO	MD Reference:	Est. KB @ 6375.00ft
Site:	Sec 24-T9S-R95W (Hawxhurst 24-9 Pad)	North Reference:	True
Well:	Hawxhurst 24-07C (new target)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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

Site		Sec 24-T9S-R95W (Hawxhurst 24-9 Pad)			
Site Position:		Northing:	4,349,673.90 m	Latitude:	39° 15' 33.923 N
From:	Lat/Long	Easting:	246,712.24 m	Longitude:	107° 56' 8.059 W
Position Uncertainty:	0.00 ft	Slot Radius:	in	Grid Convergence:	-1.86 °

Well	Hawxhurst 24-07C (new target)					
Well Position	+N/-S	0.00 ft	Northing:	4,349,673.90 m	Latitude:	39° 15' 33.923 N
	+E/-W	0.00 ft	Easting:	246,712.24 m	Longitude:	107° 56' 8.059 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	6,357.00 ft

Wellbore	DD				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	9/3/2010	10.39	65.58	52,204

Design	Plan #2			
Audit Notes:				
Version:	Phase:	PLAN	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	325.71

Plan Sections											
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	-6,375.00	0.00	0.00	0.00	0.00	0.00	0.00	
200.00	0.00	0.00	200.00	-6,175.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,155.68	38.23	325.71	1,086.34	-5,288.66	253.78	-173.03	4.00	4.00	0.00	325.71	
3,406.95	38.23	325.71	2,854.86	-3,520.14	1,404.76	-957.78	0.00	0.00	0.00	0.00	
4,936.04	0.00	0.00	4,273.00	-2,102.00	1,810.82	-1,234.63	2.50	-2.50	0.00	180.00	new 24-07C ETOG Tgt
7,140.04	0.00	0.00	6,477.00	102.00	1,810.82	-1,234.63	0.00	0.00	0.00	0.00	

Database:	EDM 2003.21 DB	Local Co-ordinate Reference:	Well Hawxhurst 24-07C (new target)
Company:	Laramie Energy II, LLC	TVD Reference:	Est. KB @ 6375.00ft
Project:	MESA CO	MD Reference:	Est. KB @ 6375.00ft
Site:	Sec 24-T9S-R95W (Hawxhurst 24-9 Pad)	North Reference:	True
Well:	Hawxhurst 24-07C (new target)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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)
100.00	0.00	0.00	100.00	6,275.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP= 200'										
200.00	0.00	0.00	200.00	6,175.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	4.00	325.71	299.92	6,075.08	2.88	-1.97	3.49	4.00	4.00	0.00
400.00	8.00	325.71	399.35	5,975.65	11.52	-7.85	13.94	4.00	4.00	0.00
500.00	12.00	325.71	497.81	5,877.19	25.86	-17.63	31.30	4.00	4.00	0.00
600.00	16.00	325.71	594.82	5,780.18	45.85	-31.26	55.49	4.00	4.00	0.00
700.00	20.00	325.71	689.91	5,685.09	71.37	-48.66	86.38	4.00	4.00	0.00
800.00	24.00	325.71	782.61	5,592.39	102.32	-69.76	123.84	4.00	4.00	0.00
900.00	28.00	325.71	872.47	5,502.53	138.53	-94.45	167.67	4.00	4.00	0.00
1,000.00	32.00	325.71	959.05	5,415.95	179.83	-122.61	217.66	4.00	4.00	0.00
1,100.00	36.00	325.71	1,041.94	5,333.06	226.03	-154.11	273.56	4.00	4.00	0.00
EOB; Inc.= 38.2°										
1,155.68	38.23	325.71	1,086.34	5,288.66	253.78	-173.03	307.16	4.00	4.00	0.00
1,200.00	38.23	325.71	1,121.16	5,253.84	276.44	-188.48	334.58	0.00	0.00	0.00
1,300.00	38.23	325.71	1,199.71	5,175.29	327.57	-223.34	396.46	0.00	0.00	0.00
Surf. Csg.										
1,300.37	38.23	325.71	1,200.00	5,175.00	327.76	-223.47	396.69	0.00	0.00	0.00
1,400.00	38.23	325.71	1,278.27	5,096.73	378.69	-258.20	458.34	0.00	0.00	0.00
1,500.00	38.23	325.71	1,356.82	5,018.18	429.82	-293.05	520.22	0.00	0.00	0.00
1,600.00	38.23	325.71	1,435.38	4,939.62	480.95	-327.91	582.10	0.00	0.00	0.00
1,700.00	38.23	325.71	1,513.94	4,861.06	532.07	-362.77	643.97	0.00	0.00	0.00
1,800.00	38.23	325.71	1,592.49	4,782.51	583.20	-397.63	705.85	0.00	0.00	0.00
1,900.00	38.23	325.71	1,671.05	4,703.95	634.32	-432.49	767.73	0.00	0.00	0.00
2,000.00	38.23	325.71	1,749.61	4,625.39	685.45	-467.34	829.61	0.00	0.00	0.00
2,100.00	38.23	325.71	1,828.16	4,546.84	736.57	-502.20	891.49	0.00	0.00	0.00
2,200.00	38.23	325.71	1,906.72	4,468.28	787.70	-537.06	953.36	0.00	0.00	0.00
2,300.00	38.23	325.71	1,985.27	4,389.73	838.83	-571.92	1,015.24	0.00	0.00	0.00
2,400.00	38.23	325.71	2,063.83	4,311.17	889.95	-606.77	1,077.12	0.00	0.00	0.00
2,500.00	38.23	325.71	2,142.39	4,232.61	941.08	-641.63	1,139.00	0.00	0.00	0.00
2,600.00	38.23	325.71	2,220.94	4,154.06	992.20	-676.49	1,200.88	0.00	0.00	0.00
2,700.00	38.23	325.71	2,299.50	4,075.50	1,043.33	-711.35	1,262.76	0.00	0.00	0.00
2,800.00	38.23	325.71	2,378.06	3,996.94	1,094.45	-746.21	1,324.63	0.00	0.00	0.00
2,900.00	38.23	325.71	2,456.61	3,918.39	1,145.58	-781.06	1,386.51	0.00	0.00	0.00
3,000.00	38.23	325.71	2,535.17	3,839.83	1,196.71	-815.92	1,448.39	0.00	0.00	0.00
3,100.00	38.23	325.71	2,613.72	3,761.28	1,247.83	-850.78	1,510.27	0.00	0.00	0.00
Williams Fork										
3,158.91	38.23	325.71	2,660.00	3,715.00	1,277.95	-871.31	1,546.72	0.00	0.00	0.00
3,200.00	38.23	325.71	2,692.28	3,682.72	1,298.96	-885.64	1,572.15	0.00	0.00	0.00
3,300.00	38.23	325.71	2,770.84	3,604.16	1,350.08	-920.50	1,634.02	0.00	0.00	0.00
3,400.00	38.23	325.71	2,849.39	3,525.61	1,401.21	-955.35	1,695.90	0.00	0.00	0.00
Start Drop										
3,406.95	38.23	325.71	2,854.85	3,520.15	1,404.76	-957.78	1,700.20	0.00	0.00	0.00
3,500.00	35.90	325.71	2,929.10	3,445.90	1,451.10	-989.37	1,756.28	2.50	-2.50	0.00
3,600.00	33.40	325.71	3,011.35	3,363.65	1,498.07	-1,021.39	1,813.14	2.50	-2.50	0.00
3,700.00	30.90	325.71	3,096.01	3,278.99	1,542.03	-1,051.37	1,866.35	2.50	-2.50	0.00
3,800.00	28.40	325.71	3,182.91	3,192.09	1,582.91	-1,079.24	1,915.81	2.50	-2.50	0.00
3,900.00	25.90	325.71	3,271.88	3,103.12	1,620.61	-1,104.94	1,961.44	2.50	-2.50	0.00
4,000.00	23.40	325.71	3,362.76	3,012.24	1,655.07	-1,128.43	2,003.15	2.50	-2.50	0.00
4,100.00	20.90	325.71	3,455.38	2,919.62	1,686.22	-1,149.67	2,040.85	2.50	-2.50	0.00
4,200.00	18.40	325.71	3,549.54	2,825.46	1,714.00	-1,168.62	2,074.48	2.50	-2.50	0.00
4,300.00	15.90	325.71	3,645.09	2,729.91	1,738.36	-1,185.23	2,103.97	2.50	-2.50	0.00

Database:	EDM 2003.21 DB	Local Co-ordinate Reference:	Well Hawxhurst 24-07C (new target)
Company:	Laramie Energy II, LLC	TVD Reference:	Est. KB @ 6375.00ft
Project:	MESA CO	MD Reference:	Est. KB @ 6375.00ft
Site:	Sec 24-T9S-R95W (Hawxhurst 24-9 Pad)	North Reference:	True
Well:	Hawxhurst 24-07C (new target)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

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)
4,400.00	13.40	325.71	3,741.83	2,633.17	1,759.26	-1,199.47	2,129.26	2.50	-2.50	0.00
4,500.00	10.90	325.71	3,839.58	2,535.42	1,776.65	-1,211.33	2,150.30	2.50	-2.50	0.00
4,600.00	8.40	325.71	3,938.16	2,436.84	1,790.50	-1,220.77	2,167.07	2.50	-2.50	0.00
4,700.00	5.90	325.71	4,037.37	2,337.63	1,800.79	-1,227.79	2,179.52	2.50	-2.50	0.00
4,800.00	3.40	325.71	4,137.04	2,237.96	1,807.48	-1,232.35	2,187.62	2.50	-2.50	0.00
4,900.00	0.90	325.71	4,236.96	2,138.04	1,810.59	-1,234.47	2,191.38	2.50	-2.50	0.00
End Drop - ETOG - new 24-07C ETOG Tgt										
4,936.04	0.00	0.00	4,273.00	2,102.00	1,810.82	-1,234.63	2,191.66	2.50	-2.50	95.12
5,000.00	0.00	0.00	4,336.96	2,038.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
5,100.00	0.00	0.00	4,436.96	1,938.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
5,200.00	0.00	0.00	4,536.96	1,838.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
5,300.00	0.00	0.00	4,636.96	1,738.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
5,400.00	0.00	0.00	4,736.96	1,638.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
5,500.00	0.00	0.00	4,836.96	1,538.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
5,600.00	0.00	0.00	4,936.96	1,438.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
5,700.00	0.00	0.00	5,036.96	1,338.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
5,800.00	0.00	0.00	5,136.96	1,238.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
Cameo										
5,828.04	0.00	0.00	5,165.00	1,210.00	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
5,900.00	0.00	0.00	5,236.96	1,138.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
6,000.00	0.00	0.00	5,336.96	1,038.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
6,100.00	0.00	0.00	5,436.96	938.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
6,200.00	0.00	0.00	5,536.96	838.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
Rollins										
6,213.04	0.00	0.00	5,550.00	825.00	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
6,300.00	0.00	0.00	5,636.96	738.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
6,400.00	0.00	0.00	5,736.96	638.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
6,500.00	0.00	0.00	5,836.96	538.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
6,600.00	0.00	0.00	5,936.96	438.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
Cozzette										
6,616.04	0.00	0.00	5,953.00	422.00	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
6,700.00	0.00	0.00	6,036.96	338.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
Corcoran										
6,790.04	0.00	0.00	6,127.00	248.00	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
6,800.00	0.00	0.00	6,136.96	238.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
6,900.00	0.00	0.00	6,236.96	138.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
7,000.00	0.00	0.00	6,336.96	38.04	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
7,100.00	0.00	0.00	6,436.96	-61.96	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
TD= 7140'										
7,140.00	0.00	0.00	6,476.96	-101.96	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00
7,140.04	0.00	0.00	6,477.00	-102.00	1,810.82	-1,234.63	2,191.66	0.00	0.00	0.00

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
new 24-07C ETOG Tat - plan hits target center - Circle (radius 50.00)	0.00	0.00	4,273.00	1,810.82	-1,234.63	4,350,237.75	246,354.02	39° 15' 51.813 N	107° 56' 23.750 W

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Company:	Laramie Energy II, LLC	TVD Reference:	Est. KB @ 6375.00ft
Project:	MESA CO	MD Reference:	Est. KB @ 6375.00ft
Site:	Sec 24-T9S-R95W (Hawxhurst 24-9 Pad)	North Reference:	True
Well:	Hawxhurst 24-07C (new target)	Survey Calculation Method:	Minimum Curvature
Wellbore:	DD		
Design:	Plan #2		

Casing Points				
MD (ft)	TVD (ft)	Name	Casing Diameter (in)	Hole Diameter (in)
1,300.37	1,200.00	Surf. Csg.		

Formations						
MD (ft)	TVD (ft)	Name	Lithology	Dip (°)	Dip Direction (°)	
3,158.91	2,660.00	Williams Fork		0.00		
4,936.04	4,273.00	ETOG		0.00		
5,828.04	5,165.00	Cameo		0.00		
6,213.04	5,550.00	Rollins		0.00		
6,616.04	5,953.00	Cozzette		0.00		
6,790.04	6,127.00	Corcoran		0.00		

Plan Annotations				
MD (ft)	TVD (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
200.00	200.00	0.00	0.00	KOP= 200'
1,155.68	1,086.34	253.78	-173.03	EOB; Inc.= 38.2°
3,406.95	2,854.85	1,404.76	-957.78	Start Drop
4,936.04	4,273.00	1,810.82	-1,234.63	End Drop
7,140.00	6,476.96	1,810.82	-1,234.63	TD= 7140'