



Comet Ridge

COMET RIDGE RESOURCES, LLC

FREMONT COUNTY, CO

MACKINAW 12-28

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Survey: Survey #1

Standard Survey Report

17 April, 2011



Weatherford®

Company:	COMET RIDGE RESOURCES, LLC	Local Co-ordinate Reference:	Well MACKINAW 12-28
Project:	FREMONT COUNTY, CO	TVD Reference:	WELL @ 5365.00ft (CAPSTAR 311)
Site:	MACKINAW 12-28	MD Reference:	WELL @ 5365.00ft (CAPSTAR 311)
Well:	MACKINAW 12-28	North Reference:	True
Wellbore:	MACKINAW 12-28	Survey Calculation Method:	Minimum Curvature
Design:	MACKINAW 12-28	Database:	EDM 2003.21 Single User Db

Project	FREMONT COUNTY, CO		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Colorado Central Zone		

Site	MACKINAW 12-28		
Site Position:		Northing:	1,195,026.21 ft
From:	Lat/Long	Easting:	3,108,294.80 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	38° 22' 5.545 N
		Longitude:	105° 7' 20.276 W
		Grid Convergence:	0.24 °

Well	MACKINAW 12-28		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	38° 22' 5.545 N
		Longitude:	105° 7' 20.276 W
		Ground Level:	5,354.00 ft

Wellbore	MACKINAW 12-28				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2010	4/13/2011	8.87	65.36	51,981

Design	MACKINAW 12-28			
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth:
				0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	3,158.00	0.00	0.00	98.30

Survey Program	Date	4/17/2011		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description
664.00	3,400.00	Survey #1 (MACKINAW 12-28)	MWD	MWD - Standard

Survey										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
664.00	2.21	357.97	663.84	12.80	-0.45	-2.30	0.33	0.33	0.00	
758.00	2.04	357.38	757.77	16.28	-0.59	-2.94	0.18	-0.18	-0.63	
850.00	0.28	37.90	849.75	18.09	-0.53	-3.14	2.00	-1.91	44.04	
945.00	0.31	46.50	944.75	18.45	-0.20	-2.86	0.06	0.03	9.05	
1,038.00	0.44	56.87	1,037.75	18.82	0.28	-2.44	0.16	0.14	11.15	
1,132.00	0.56	67.37	1,131.74	19.19	1.01	-1.78	0.16	0.13	11.17	
1,228.00	0.56	105.37	1,227.74	19.25	1.89	-0.91	0.38	0.00	39.58	
1,321.00	0.81	123.37	1,320.73	18.77	2.88	0.14	0.35	0.27	19.35	
1,415.00	0.88	114.25	1,414.72	18.11	4.09	1.43	0.16	0.07	-9.70	
1,511.00	1.06	107.12	1,510.71	17.54	5.61	3.02	0.23	0.19	-7.43	
1,606.00	1.06	109.12	1,605.69	17.00	7.28	4.75	0.04	0.00	2.11	
1,701.00	1.06	110.87	1,700.67	16.40	8.93	6.47	0.03	0.00	1.84	

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Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
1,796.00	2.81	94.75	1,795.62	15.89	12.08	9.66	1.91	1.84	-16.97
1,892.00	6.56	92.25	1,891.28	15.48	19.90	17.46	3.91	3.91	-2.60
1,986.00	10.19	94.75	1,984.26	14.58	33.56	31.10	3.88	3.86	2.66
2,084.00	13.38	92.37	2,080.18	13.39	53.53	51.04	3.29	3.26	-2.43
2,179.00	16.19	91.12	2,172.03	12.68	77.76	75.12	2.98	2.96	-1.32
2,274.00	18.44	93.75	2,262.72	11.44	106.00	103.24	2.51	2.37	2.77
2,369.00	21.75	94.37	2,351.92	9.11	138.55	135.79	3.49	3.48	0.65
TOP OF TGT									
2,427.79	24.18	96.75	2,406.06	6.87	161.37	158.69	4.42	4.13	4.04
2,464.00	25.69	98.00	2,438.89	4.90	176.51	173.95	4.42	4.17	3.46
2,559.00	29.00	97.87	2,523.26	-1.12	219.72	217.58	3.48	3.48	-0.14
2,654.00	32.81	100.62	2,604.76	-9.02	267.85	266.35	4.28	4.01	2.89
2,748.00	37.00	101.87	2,681.83	-19.53	320.59	320.05	4.52	4.46	1.33
2,844.00	40.88	101.25	2,756.49	-31.61	379.69	380.28	4.06	4.04	-0.65
2,939.00	39.94	100.37	2,828.82	-43.16	440.18	441.80	1.16	-0.99	-0.93
3,034.00	42.06	100.75	2,900.52	-54.59	501.45	504.07	2.25	2.23	0.40
3,129.00	41.63	100.12	2,971.29	-66.07	563.77	567.41	0.63	-0.45	-0.66
3,224.00	41.94	99.87	3,042.13	-77.05	626.11	630.68	0.37	0.33	-0.26
LAST SVY - PBHL MACKINAW 12-28									
3,338.00	41.47	99.63	3,127.24	-89.90	700.86	706.50	0.44	-0.41	-0.21
PROJ SVY									
3,400.00	41.21	99.50	3,173.79	-96.70	741.25	747.44	0.44	-0.42	-0.21

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
3,338.00	3,127.24	-89.90	700.86	LAST SVY
3,400.00	3,173.79	-96.70	741.25	PROJ SVY

Checked By: _____	Approved By: _____	Date: _____
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