



Comet Ridge

# **COMET RIDGE RESOURCES, LLC**

**EL PASO COUNTY, CO**

**NAOS STATE 32-4**

**NAOS STATE 32-4**

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**Survey: Survey #1**

## **Standard Survey Report**

**15 December, 2010**



**Weatherford®**

<b>Company:</b>	COMET RIDGE RESOURCES, LLC	<b>Local Co-ordinate Reference:</b>	Well NAOS STATE 32-4
<b>Project:</b>	EL PASO COUNTY, CO	<b>TVD Reference:</b>	WELL @ 5770.00ft (CAPSTAR 311)
<b>Site:</b>	NAOS STATE 32-4	<b>MD Reference:</b>	WELL @ 5770.00ft (CAPSTAR 311)
<b>Well:</b>	NAOS STATE 32-4	<b>North Reference:</b>	True
<b>Wellbore:</b>	NAOS STATE 32-4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	NAOS STATE 32-4	<b>Database:</b>	EDM 2003.21 Single User Db

<b>Project</b>	EL PASO COUNTY, CO		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	Colorado Central Zone		

Site	NAOS STATE 32-4				
Site Position:		Northing:	1,312,474.27 ft	Latitude:	38° 41' 14.989 N
From:	Lat/Long	Easting:	3,268,613.36 ft	Longitude:	104° 33' 32.180 W
Position Uncertainty:	0.00 ft	Slot Radius:	"	Grid Convergence:	0.59 °

Well	NAOS STATE 32-4					
Well Position	+N/-S	0.00 ft	Northing:	1,312,474.27 ft	Latitude:	38° 41' 14.989 N
	+E/-W	0.00 ft	Easting:	3,268,613.36 ft	Longitude:	104° 33' 32.180 W
Position Uncertainty		0.00 ft	Wellhead Elevation:	ft	Ground Level:	5,759.00 ft

<b>Wellbore</b>	NAOS STATE 32-4				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	BGGM2010	11/22/2010	8.67	65.73	52,259

<b>Design</b>	NAOS STATE 32-4				
<b>Audit Notes:</b>					
<b>Version:</b>	1.0	<b>Phase:</b>	ACTUAL	<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	355.38	

<b>Survey Program</b>	<b>Date</b>	12/15/2010			
<b>From (ft)</b>	<b>To (ft)</b>	<b>Survey (Wellbore)</b>	<b>Tool Name</b>	<b>Description</b>	
504.00	4,630.00	Survey #1 (NAOS STATE 32-4)	MWD	MWD - Standard	

<b>Survey</b>										
<b>Measured Depth (ft)</b>	<b>Inclination (°)</b>	<b>Azimuth (°)</b>	<b>Vertical Depth (ft)</b>	<b>+N/-S (ft)</b>	<b>+E/-W (ft)</b>	<b>Vertical Section (ft)</b>	<b>Dogleg Rate (°/100ft)</b>	<b>Build Rate (°/100ft)</b>	<b>Turn Rate (°/100ft)</b>	
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
504.00	1.18	266.20	503.96	-0.34	-5.18	0.07	0.23	0.23	0.00	
535.00	1.19	266.67	534.96	-0.38	-5.82	0.09	0.04	0.03	1.52	
627.00	1.31	262.67	626.94	-0.57	-7.81	0.06	0.16	0.13	-4.35	
720.00	1.38	264.55	719.91	-0.82	-9.98	-0.01	0.09	0.08	2.02	
815.00	1.63	262.82	814.88	-1.09	-12.46	-0.08	0.27	0.26	-1.82	
909.00	2.06	307.42	908.83	-0.23	-15.13	0.99	1.55	0.46	47.45	
1,008.00	2.25	340.80	1,007.77	2.68	-17.18	4.06	1.26	0.19	33.72	
1,102.00	1.75	4.55	1,101.71	5.86	-17.68	7.26	1.02	-0.53	25.27	
1,198.00	1.88	3.55	1,197.66	8.89	-17.46	10.27	0.14	0.14	-1.04	
1,292.00	1.94	359.05	1,291.61	12.02	-17.39	13.38	0.17	0.06	-4.79	
1,387.00	2.19	21.55	1,386.55	15.32	-16.75	16.62	0.89	0.26	23.68	
1,482.00	1.75	52.92	1,481.50	17.88	-14.93	19.02	1.21	-0.46	33.02	

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<b>Well:</b>	NAOS STATE 32-4	<b>North Reference:</b>	True
<b>Wellbore:</b>	NAOS STATE 32-4	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Design:</b>	NAOS STATE 32-4	<b>Database:</b>	EDM 2003.21 Single User Db

### 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)
1,577.00	3.31	56.42	1,576.40	20.27	-11.49	21.13	1.65	1.64	3.68
1,641.00	2.25	62.42	1,640.33	21.87	-8.83	22.51	1.72	-1.66	9.38
1,736.00	0.94	106.17	1,735.29	22.52	-6.43	22.97	1.79	-1.38	46.05
1,831.00	0.75	112.67	1,830.28	22.06	-5.11	22.40	0.22	-0.20	6.84
1,927.00	0.69	153.42	1,926.27	21.30	-4.27	21.58	0.53	-0.06	42.45
2,025.00	0.56	117.67	2,024.27	20.55	-3.58	20.78	0.41	-0.13	-36.48
2,212.00	0.44	107.92	2,211.26	19.91	-2.09	20.01	0.08	-0.06	-5.21
<b>T-1</b>									
2,250.83	0.36	120.31	2,250.09	19.80	-1.84	19.89	0.30	-0.21	31.92
2,403.00	0.38	197.17	2,402.26	19.08	-1.58	19.14	0.30	0.01	50.51
2,593.00	1.13	190.05	2,592.24	16.63	-2.09	16.75	0.40	0.39	-3.75
2,689.00	0.63	333.05	2,688.23	16.17	-2.50	16.32	1.75	-0.52	148.96
2,880.00	0.75	317.30	2,879.22	18.02	-3.82	18.27	0.12	0.06	-8.25
2,975.00	0.81	312.30	2,974.21	18.93	-4.74	19.25	0.10	0.06	-5.26
<b>KOP</b>									
3,060.40	1.52	325.00	3,059.59	20.27	-5.84	20.67	0.88	0.83	14.87
3,073.00	1.63	325.92	3,072.19	20.55	-6.03	20.97	0.88	0.86	7.33
3,168.00	2.94	346.17	3,167.11	24.04	-7.37	24.55	1.60	1.38	21.32
3,263.00	4.25	352.80	3,261.92	29.90	-8.40	30.48	1.44	1.38	6.98
3,358.00	6.25	352.30	3,356.52	38.52	-9.53	39.16	2.11	2.11	-0.53
3,452.00	8.25	0.80	3,449.77	50.33	-10.12	50.98	2.41	2.13	9.04
3,547.00	9.50	356.92	3,543.63	64.98	-10.45	65.61	1.46	1.32	-4.08
3,643.00	11.19	355.17	3,638.06	82.17	-11.66	82.84	1.79	1.76	-1.82
3,729.00	11.88	354.55	3,722.33	99.30	-13.20	100.04	0.82	0.80	-0.72
3,769.00	12.31	354.30	3,761.44	107.64	-14.02	108.42	1.08	1.08	-0.63
<b>T-2</b>									
3,771.91	12.29	354.34	3,764.28	108.26	-14.08	109.04	0.68	-0.59	1.54
3,832.00	11.94	355.30	3,823.03	120.82	-15.22	121.65	0.68	-0.59	1.59
3,928.00	10.19	357.17	3,917.24	139.20	-16.45	140.07	1.86	-1.82	1.95
4,026.00	10.44	355.30	4,013.66	156.70	-17.61	157.61	0.43	0.26	-1.91
<b>T-3</b>									
4,116.55	9.55	349.08	4,102.84	172.26	-19.70	173.28	1.54	-0.98	-6.87
4,122.00	9.50	348.67	4,108.21	173.14	-19.88	174.18	1.54	-0.91	-7.53
4,217.00	9.75	347.80	4,201.88	188.69	-23.12	189.94	0.30	0.26	-0.92
<b>T-4</b>									
4,281.12	10.05	347.29	4,265.05	199.45	-25.49	200.86	0.48	0.46	-0.80
4,312.00	10.19	347.05	4,295.44	204.74	-26.70	206.23	0.48	0.46	-0.77
4,406.00	9.31	344.42	4,388.08	220.17	-30.60	221.92	1.05	-0.94	-2.80
4,529.00	9.38	347.80	4,509.45	239.55	-35.40	241.62	0.45	0.06	2.75
<b>LAST SVY - PBHL NAOS STATE 32-4</b>									
4,578.00	9.38	345.05	4,557.80	247.31	-37.27	249.51	0.91	0.00	-5.61
<b>PROJ SVY</b>									
4,630.00	9.38	345.05	4,609.10	255.50	-39.46	257.85	0.00	0.00	0.00

### Survey Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
4,578.00	4,557.80	247.31	-37.27	LAST SVY
4,630.00	4,609.10	255.50	-39.46	PROJ SVY

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**Project:** EL PASO COUNTY, CO  
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Checked By: \_\_\_\_\_ Approved By: \_\_\_\_\_ Date: \_\_\_\_\_