

Submit To Appropriate District Office State Lease - 6 copies Fee Lease - 5 copies <u>District I</u> 1625 N French Dr , Hobbs, NM 88240 <u>District II</u> 1301 W. Grand Avenue, Artesia, NM 88210 <u>District III</u> 1000 Rio Brazos Rd., Aztec, NM 87410 <u>District IV</u> 1220 S St Francis Dr , Santa Fe, NM 87505	State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505	Form C-105 Revised June 10, 2003 WELL API NO. 30-015-35556 5. Indicate Type of Lease STATE ☒ FEE ☐ State Oil & Gas Lease No.												
WELL COMPLETION OR RECOMPLETION REPORT AND LOG														
1a. Type of Well: OIL WELL ☒ GAS WELL ☐ DRY ☐ OTHER ☐ b. Type of Completion: NEW ☒ WORK ☐ DEEPEN ☐ PLUG ☐ DIFF. ☐ WELL OVER BACK RESVR. ☐ OTHER ☐		7. Lease Name or Unit Agreement Name Crow Flats 16 State Com												
2. Name of Operator Cimarex Energy Co. of Colorado		8. Well No. 002												
3. Address of Operator PO Box 140907; Irving, TX 75014-0907		9. Pool name or Wildcat Abo Wildcat												
4. Well Location SHL: Unit Letter <u>M</u> : <u>660</u> Feet From The <u>South</u> Line and <u>330</u> Feet From The <u>West</u> Line BHL: Unit Letter <u>P</u> : <u>658</u> Feet From The <u>South</u> Line and <u>715</u> Feet From The <u>East</u> Line Section <u>16</u> Township <u>16S</u> Range <u>28E</u> NMPM County <u>Eddy</u>														
10. Date Spudded 05-11-07	11. Date T.D. Reached 06-28-07	12. Date Compl. (Ready to Prod.) 08-10-07												
13. Elevations (DF& RKB, RT, GR, etc.) 3573' GR		14. Elev. Casinghead												
15. Total Depth MD 10534' TVD 6559'	16. Plug Back T.D. MD 10484' TVD 6558'	17. If Multiple Compl How Many Zones? 												
18. Intervals Drilled By 		Rotary Tools Rotary												
19. Producing Interval(s), of this completion - Top, Bottom, Name Abo Wildcat 6795'-10452' MD		20. Was Directional Survey Made Yes												
21. Type Electric and Other Logs Run Neutron, Laterolog, Cement Bond		22. Was Well Cored No												
23. CASING RECORD (Report all strings set in well)														
CASING SIZE	WEIGHT LB./FT.	DEPTH SET												
13-3/8"	48	340'												
8-5/8"	24	1800'												
5-1/2"	17	10534'												
24. LINER RECORD		25. TUBING RECORD												
SIZE	TOP	BOTTOM												
SACKS CEMENT	SCREEN	SIZE												
DEPTH SET	PACKER SET	SIZE												
2-7/8"	6108'	6108'												
26. Perforation record (interval, size, and number) 9780'-10452' 6 spf, 60 holes 9110'-9517' 6 spf, 60 holes 8250'-8892' 6 spf, 60 holes 7575'-8122' 6 spf, 60 holes 6795'-7392' 6 spf, 60 holes														
27. ACID, SHOT, FRACTURE, CEMENT, SQUEEZE, ETC. <table border="1" style="width:100%; border-collapse: collapse;"> <tr> <th style="text-align: left;">DEPTH INTERVAL</th> <th style="text-align: left;">AMOUNT AND KIND MATERIAL USED</th> </tr> <tr> <td>9780'-10452'</td> <td>98281 gal 30,40# Linear Gel, 3750# 100% Mesh White Sand, 10000# 14/30 100% Lite Prop 125 Sand</td> </tr> <tr> <td>9110'-9517'</td> <td>108906 gal 30,40# Linear Gel, 2687# 14/30 Lite Prop 125 Sand & 1500# 16/30 100% White Sand</td> </tr> <tr> <td>8250'-8892'</td> <td>141036 gal 20,30,40# Linear Gel, 1596# 16/30 100% White Sand</td> </tr> <tr> <td>7575'-8122'</td> <td>166278 gal 20# Linear Gel, 592# 16/30 100% White Sand</td> </tr> <tr> <td>6795'-7392'</td> <td>130074 gal 20# Linear Gel, 556# 16/30 White Sand</td> </tr> </table>			DEPTH INTERVAL	AMOUNT AND KIND MATERIAL USED	9780'-10452'	98281 gal 30,40# Linear Gel, 3750# 100% Mesh White Sand, 10000# 14/30 100% Lite Prop 125 Sand	9110'-9517'	108906 gal 30,40# Linear Gel, 2687# 14/30 Lite Prop 125 Sand & 1500# 16/30 100% White Sand	8250'-8892'	141036 gal 20,30,40# Linear Gel, 1596# 16/30 100% White Sand	7575'-8122'	166278 gal 20# Linear Gel, 592# 16/30 100% White Sand	6795'-7392'	130074 gal 20# Linear Gel, 556# 16/30 White Sand
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28. PRODUCTION														
Date First Production 08-10-07	Production Method (<i>Flowing, gas lift, pumping - Size and type pump</i>) Pumping 2-1/2" x 2" x 24' RHBC-BNC Rod Pump													
Well Status (<i>Prod. or Shut-in</i>) Producing														
Date of Test 08-23-07	Hours Tested 24	Choke Size wo												
Flow Tubing Press. 151	Casing Pressure 540	Calculated 24 Hour Rate 												
Oil - Bbl 11	Gas - MCF 56	Water - Bbl 373												
Gas - Oil Ratio 5010														
Oil Gravity - API - (<i>Corr.</i>) 40.7														
29. Disposition of Gas (<i>Sold, used for fuel, vented, etc.</i>) Sold		Test Witnessed By												
30. List Attachments Deviation Summary, C-102														
31. I hereby certify that the information shown on both sides of this form is true and complete to the best of my knowledge and belief.														
Signature <u>Natalie Krueger</u> Printed Name <u>Natalie Krueger</u> Title <u>Reg Analyst 1</u> Date <u>5/27/2008</u> E-mail Address <u>nkrueger@cimarex.com</u>														

INSTRUCTIONS

This form is to be filed with the appropriate District Office of the Division not later than 20 days after the completion of any newly-drilled or deepened well. It shall be accompanied by one copy of all electrical and radio-activity logs run on the well and a summary of all special tests conducted, including drill stem tests. All depths reported shall be measured depths. In the case of directionally drilled wells, true vertical depths shall also be reported. For multiple completions, items 25 through 29 shall be reported for each zone. The form is to be filed in quintuplicate except on state land, where six copies are required. See Rule 1105.

INDICATE FORMATION TOPS IN CONFORMANCE WITH GEOGRAPHICAL SECTION OF STATE

Southeastern New Mexico		Northwestern New Mexico	
T. Anhy	T. Canyon	T. Ojo Alamo	T. Penn. "B"
T. Salt	T. Strawn	T. Kirtland-Fruitland	T. Penn. "C"
B. Salt	T. Atoka	T. Pictured Cliffs	T. Penn. "D"
T. Yates	T. Miss	T. Cliff House	T. Leadville
T. 7 Rivers	T. Devonian	T. Menefee	T. Madison
T. Queen	T. Silurian	T. Point Lookout	T. Elbert
T. Grayburg	T. Montoya	T. Mancos	T. McCracken
T. San Andres 1915'	T. Simpson	T. Gallup	T. Ignacio Otzte
T. Glorieta 3315'	T. McKee	B. Greenhorn	T. Granite
T. Paddock	T. Ellenburger	T. Dakota	T.
T. Blinebry	T. Gr. Wash	T. Morrison	T.
T. Tubb	T. Delaware	T. Todilto	T.
T. Drinkard	T. Bone Spring	T. Entrada	T.
T. Abo Shale 5340'	T. Morrow	T. Wingate	T.
T. Wolfcamp 6625'	T.	T. Chinle	T.
T. Penn	T.	T. Permian	T.
T. Cisco (Bough C)	T.	T. Penn "A"	T.

OIL OR GAS SANDS OR ZONES

No. 1, fromto.....

No. 2, from.....to.....

No. 3, from.....to.....

No. 4, from.....to.....

IMPORTANT WATER SANDS

Include data on rate of water inflow and elevation to which water rose in hole.

No. 1, from.....to.....feet.....
 No. 2, from.....to.....feet.....
 No. 3, from.....to.....feet.....

LITHOLOGY RECORD (Attach additional sheet if necessary)

From	To	Thickness In Feet	Lithology

From	To	Thickness In Feet	Lithology

Operator: Cimarex Energy Co. of Colorado
Well/Lease: Crow Flats 16 State Com No. 2
County: Eddy, NM

State of New Mexico
Deviation Report

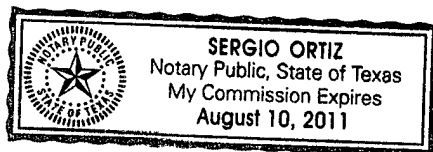
256'	0.50
340'	0.50
572'	0.50
882'	0.50
1140'	0.50
1456'	0.50
1800'	0.50
2104'	1.00
2430'	1.00
2752'	1.00
3095'	1.00
3382'	0.50
3632'	0.50
3978'	0.50
4234'	1.00
4518'	1.00
4799'	1.50
4991'	0.50
5085'	0.50
5432'	1.00
5692'	0.50
5958'	3.00
6002'	3.50
6107'	3.50
6189'	3.50
6277'	3.00
6340'	3.00
6403'	3.00
6467'	3.00
6593'	3.00

MAY 28 2008
OCD-ARTESIA

State of:
County of:

The foregoing instrument was acknowledged before me on 05/23/08, by
ICBY ENERGY LLC, on behalf of _____

Notary Public For: TEXAS; Ector
My Commission Expires:



DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised October 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

MAY 28 2008

OCD-ARTESIA

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-35556	Pool Code	Pool Name Abo Wildcat
Property Code	Property Name CROW FLATS "16" STATE COM	Well Number 2
OGRID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO	Elevation 3573'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	16	16 S	28 E		660	SOUTH	330	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	16	16 S	28 E		658	SOUTH	715	EAST	EDDY

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
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NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED
OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Zeno Farris</i> 05-27-08 Signature Date Zeno Farris Printed Name	
SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. MARCH 29, 2007 Date Surveyed Signature & Seal Professional Surveyor <i>GARY L. JONES</i> Professional Surveyor Certificate No. Gary L. Jones 7977 BASIN SURVEYS	

SURFACE LOCATION
Lat - N32°55'01.7"
Long - W104°11'17.9"
NMPCE - N 697421.100
E 585839.970
(NAD-83)

Crow Flats 16 St Com #2

SHL 330' 660' 4235' BHL 715' 658'

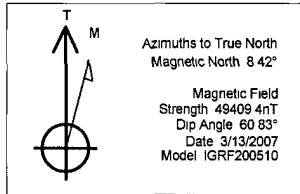
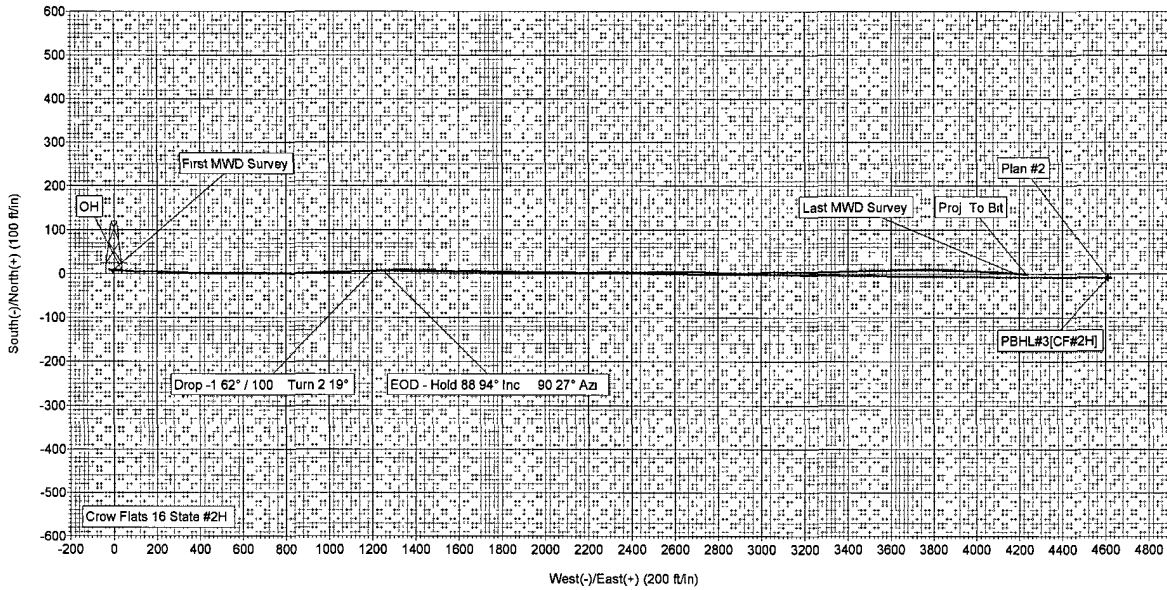
GR-0124-0000

MAY 28 2008



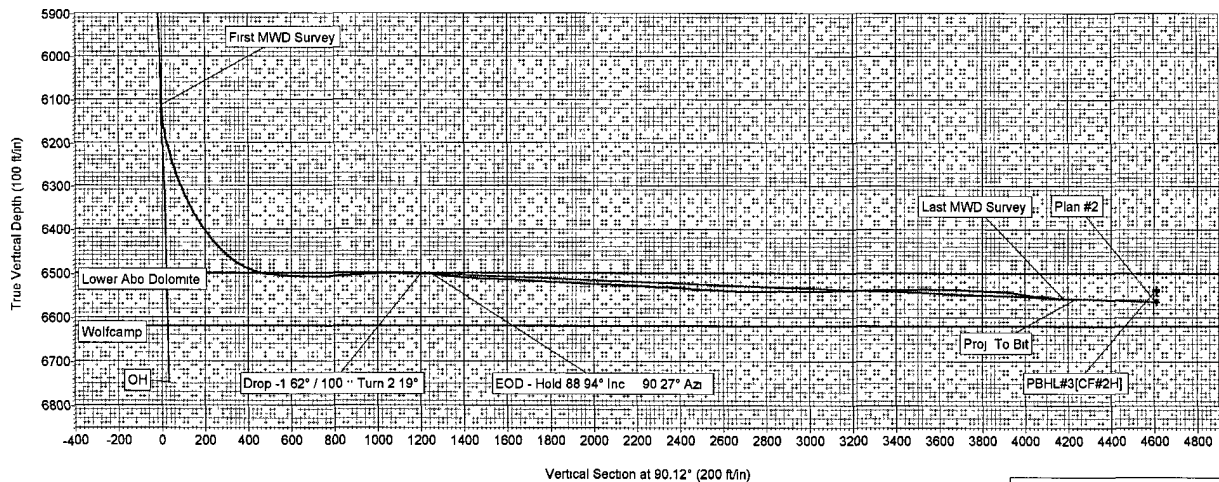
Project: Eddy Co., New Mexico
 Site: Crow Flats 16 State #2H
 Well: Crow Flats 16 State #2H
 Wellbore: Lateral #1
 Plan: Plan #2 (Crow Flats 16 State #2H/Lateral #1)

OCD-ARTESI



TVD	MD	Annotation
6502.22	7497.00	Drop -1.62° / 100' Turn 2.19°
6502.81	7550.00	EOD - Hold 88.94° Inc 90.27° Azi

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	7497.00	89.80	89.10	6502.22	5.44	1199.25	0.00	0.00	1199.24	
2	7550.00	88.94	90.26	6502.81	5.74	1252.24	2.72	126.56	1252.23	
3	7600.00	88.94	90.26	6503.73	5.51	1302.24	0.00	0.00	1302.22	
4	10909.69	88.94	90.27	6565.00	-9.71	4611.32	0.00	0.00	4611.33	PBHL#2[CF#2H]



Plan: Plan #2 (Crow Flats 16 State #2H/Lateral #1)
 Created By: L.D. Burton Date: June 18, 2007



Cimarex Energy Co., Inc.

Eddy Co., New Mexico

Crow Flats 16 State #2H

Crow Flats 16 State #2H

Lateral #1

MAY 28 2008
OCD-ARTESIA

Survey: MWD Survey #1

Standard Survey Report

29 June, 2007





Black Viper Energy
Survey Report



Company:	Cimarex Energy Co., Inc	Local Co-ordinate Reference:	Well Crow Flats 16 State #2H
Project:	Eddy Co., New Mexico	TVD Reference:	WELL @ 0'00ft (Original Well Elev)
Site:	Crow Flats 16 State #2H	MD Reference:	WELL @ 0'00ft (Original Well Elev)
Well:	Crow Flats 16 State #2H	North Reference:	True
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM/2003.14.1.0 Server DB

Project	Eddy Co., New Mexico		
Map System:	US State Plane 1983	System Datum:	Ground Level
Geo Datum:	North American Datum 1983		
Map Zone:	Texas North Central Zone		

Site	Crow Flats 16 State #2H		
Site Position:		Northing:	7,063,859.83 ft
From:	Lat/Long	Easting:	223,882.76 ft
Position Uncertainty:	0.00 ft	Slot Radius:	"
		Latitude:	32° 55' 1.700 N
		Longitude:	104° 11' 17.900 W
		Grid Convergence:	-3.10 °

Well	Crow Flats 16 State #2H		
Well Position	+N/-S	0.00 ft	Northing:
	+E/-W	0.00 ft	Easting:
Position Uncertainty	0.00 ft	Wellhead Elevation:	ft
		Latitude:	32° 55' 1.700 N
		Longitude:	104° 11' 17.900 W
		Ground Level:	0.00 ft

Wellbore	Lateral #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF200510	3/13/2007	8.42
			Dip Angle
			(°)
			60.83
			Field Strength
			(nT)
			49,409

Design	Lateral #1		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	6,100.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(ft)	(ft)	(ft)
	0.00	0.00	0.00
			Direction
			(°)
			90.12

Survey Program	Date: 6/29/2007		
From	To	Survey (Wellbore)	Tool Name
(ft)	(ft)		
1,900.00	6,100.00	Gyro Survey #1 (OH)	NS-GYRO-MS
6,100.00	10,534.00	MWD Survey #1 (Lateral #1)	MWD
			Description
			North sensing gyrocompassing m/s
			MWD - Standard

Survey									
Measured Depth	Inclination	Azimuth	Vertical Depth	+N/-S	+E/-W	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(ft)	(°)	(°)	(ft)	(ft)	(ft)	(ft)	(°/100ft)	(°/100ft)	(°/100ft)
6,100.00	3.78	90.76	6,099.45	8.26	-2.47	-2.48	0.00	0.00	0.00
6,114.00	7.80	93.50	6,113.37	8.19	-1.06	-1.07	28.76	28.71	19.59
6,145.00	13.60	96.20	6,143.82	7.67	4.67	4.66	18.77	18.71	8.71
6,177.00	18.70	94.30	6,174.55	6.88	13.53	13.52	16.02	15.94	-5.94
6,209.00	24.80	91.60	6,204.26	6.30	25.37	25.36	19.31	19.06	-8.44
6,241.00	29.80	90.20	6,232.68	6.09	40.04	40.03	15.75	15.63	-4.38
6,273.00	33.80	90.40	6,259.88	6.00	56.90	56.88	12.50	12.50	0.63
6,304.00	37.50	91.10	6,285.06	5.76	74.96	74.95	12.01	11.94	2.26
6,336.00	41.20	90.80	6,309.80	5.42	95.24	95.23	11.58	11.56	-0.94
6,368.00	44.50	89.90	6,333.26	5.30	117.00	116.99	10.49	10.31	-2.81
6,399.00	47.40	89.80	6,354.81	5.36	139.28	139.27	9.36	9.35	-0.32
6,431.00	50.50	91.20	6,375.82	5.14	163.41	163.40	10.23	9.69	4.38



Black Viper Energy Survey Report



Company:	Cimarex Energy Co., Inc	Local Co-ordinate Reference:	Well Crow Flats 16 State #2H
Project:	Eddy Co., New Mexico	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Crow Flats 16 State #2H	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Well:	Crow Flats 16 State #2H	North Reference:	True
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 2003 14 1 0 Server 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)
6,463.00	53.60	91.60	6,395.50	4.52	188.63	188.62	9.74	9.69	1.25
6,495.00	56.60	91.50	6,413.81	3.81	214.86	214.85	9.38	9.38	-0.31
6,526.00	60.30	90.30	6,430.03	3.40	241.27	241.26	12.38	11.94	-3.87
6,557.00	63.80	90.70	6,444.55	3.16	268.65	268.64	11.35	11.29	1.29
6,589.00	66.90	90.50	6,457.90	2.86	297.73	297.72	9.70	9.69	-0.63
6,620.00	69.80	90.60	6,469.33	2.58	326.54	326.53	9.36	9.35	0.32
6,653.00	73.30	90.70	6,479.78	2.22	357.83	357.83	10.61	10.61	0.30
6,684.00	77.00	90.10	6,487.72	2.02	387.79	387.79	12.08	11.94	-1.94
6,716.00	79.30	89.80	6,494.29	2.04	419.11	419.10	7.25	7.19	-0.94
6,748.00	82.10	89.70	6,499.46	2.18	450.69	450.68	8.76	8.75	-0.31
6,779.00	85.60	89.80	6,502.78	2.32	481.50	481.50	11.29	11.29	0.32
6,811.00	88.10	90.20	6,504.54	2.32	513.45	513.44	7.91	7.81	1.25
6,842.00	88.40	90.30	6,505.49	2.18	544.44	544.43	1.02	0.97	0.32
6,905.00	88.40	89.70	6,507.25	2.18	607.41	607.41	0.95	0.00	-0.95
6,969.00	89.20	91.00	6,508.59	1.79	671.39	671.39	2.38	1.25	2.03
7,031.00	90.50	90.60	6,508.75	0.92	733.39	733.38	2.19	2.10	-0.65
7,095.00	91.60	90.40	6,507.58	0.37	797.37	797.37	1.75	1.72	-0.31
7,158.00	91.80	89.30	6,505.71	0.53	860.34	860.34	1.77	0.32	-1.75
7,222.00	91.40	89.10	6,503.92	1.42	924.31	924.31	0.70	-0.63	-0.31
7,285.00	91.50	89.00	6,502.33	2.47	987.28	987.28	0.22	0.16	-0.16
7,317.00	91.00	88.90	6,501.63	3.05	1,019.27	1,019.26	1.59	-1.56	-0.31
7,349.00	89.40	89.40	6,501.52	3.53	1,051.27	1,051.26	5.24	-5.00	1.56
7,380.00	89.70	89.50	6,501.76	3.83	1,082.26	1,082.25	1.02	0.97	0.32
7,443.00	89.80	89.10	6,502.03	4.60	1,145.26	1,145.24	0.65	0.16	-0.63
7,506.00	89.00	88.40	6,502.69	5.97	1,208.24	1,208.22	1.69	-1.27	-1.11
7,539.00	87.90	88.80	6,503.59	6.78	1,241.22	1,241.20	3.55	-3.33	1.21
7,570.00	88.00	89.10	6,504.70	7.34	1,272.19	1,272.17	1.02	0.32	0.97
7,633.00	87.20	90.10	6,507.33	7.78	1,335.13	1,335.11	2.03	-1.27	1.59
7,696.00	87.20	90.30	6,510.41	7.56	1,398.06	1,398.04	0.32	0.00	0.32
7,728.00	88.30	90.60	6,511.67	7.31	1,430.03	1,430.01	3.56	3.44	0.94
7,759.00	88.20	90.60	6,512.61	6.99	1,461.01	1,461.00	0.32	-0.32	0.00
7,822.00	89.40	91.10	6,513.93	6.05	1,523.99	1,523.98	2.06	1.90	0.79
7,854.00	89.60	90.50	6,514.21	5.61	1,555.99	1,555.97	1.98	0.63	-1.88
7,918.00	88.50	89.50	6,515.27	5.61	1,619.98	1,619.96	2.32	-1.72	-1.56
7,981.00	88.30	90.40	6,517.03	5.66	1,682.95	1,682.94	1.46	-0.32	1.43
8,044.00	88.40	90.30	6,518.85	5.28	1,745.92	1,745.91	0.22	0.16	-0.16
8,107.00	88.20	90.60	6,520.72	4.78	1,808.89	1,808.88	0.57	-0.32	0.48
8,171.00	88.70	90.10	6,522.45	4.39	1,872.87	1,872.86	1.10	0.78	-0.78
8,234.00	88.80	90.40	6,523.82	4.12	1,935.85	1,935.84	0.50	0.16	0.48
8,297.00	88.80	90.60	6,525.14	3.57	1,998.84	1,998.83	0.32	0.00	0.32
8,361.00	88.90	90.20	6,526.43	3.12	2,062.82	2,062.81	0.64	0.16	-0.63
8,424.00	88.60	90.80	6,527.80	2.57	2,125.81	2,125.80	1.06	-0.48	0.95
8,488.00	89.00	89.80	6,529.14	2.24	2,189.79	2,189.78	1.68	0.63	-1.56
8,552.00	88.40	89.80	6,530.59	2.46	2,253.77	2,253.76	0.94	-0.94	0.00
8,615.00	88.60	89.80	6,532.24	2.68	2,316.75	2,316.74	0.32	0.32	0.00
8,678.00	88.60	89.70	6,533.78	2.95	2,379.73	2,379.72	0.16	0.00	-0.16
8,741.00	88.40	89.60	6,535.43	3.34	2,442.71	2,442.70	0.35	-0.32	-0.16
8,805.00	88.20	89.20	6,537.33	4.01	2,506.68	2,506.66	0.70	-0.31	-0.63
8,867.00	88.40	90.20	6,539.17	4.33	2,568.65	2,568.63	1.64	0.32	1.61
8,930.00	88.60	89.80	6,540.82	4.33	2,631.63	2,631.61	0.71	0.32	-0.63
9,056.00	90.50	91.10	6,541.81	3.34	2,757.61	2,757.60	1.83	1.51	1.03
9,119.00	90.20	91.10	6,541.42	2.13	2,820.60	2,820.59	0.48	-0.48	0.00
9,183.00	90.30	90.60	6,541.14	1.18	2,884.59	2,884.58	0.80	0.16	-0.78
9,247.00	89.90	88.50	6,541.03	1.69	2,948.58	2,948.57	3.34	-0.63	-3.28



Black Viper Energy Survey Report



Company:	Cimarex Energy Co., Inc	Local Co-ordinate Reference:	Well Crow Flats 16 State #2H
Project:	Eddy Co., New Mexico	TVD Reference:	WELL @ 0.00ft (Original Well Elev)
Site:	Crow Flats 16 State #2H	MD Reference:	WELL @ 0.00ft (Original Well Elev)
Well:	Crow Flats 16 State #2H	North Reference:	True
Wellbore:	Lateral #1	Survey Calculation Method:	Minimum Curvature
Design:	Lateral #1	Database:	EDM 2003.14 1.0 Server 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)	
9,310.00	90.20	88.60	6,540.98	3.28	3,011.56	3,011.55	0.50	0.48	0.16	
9,373.00	90.40	89.80	6,540.65	4.16	3,074.55	3,074.54	1.93	0.32	1.90	
9,436.00	90.20	90.30	6,540.32	4.11	3,137.55	3,137.54	0.85	-0.32	0.79	
9,500.00	90.80	90.70	6,539.76	3.55	3,201.55	3,201.53	1.13	0.94	0.63	
9,563.00	90.90	89.40	6,538.82	3.49	3,264.54	3,264.53	2.07	0.16	-2.06	
9,627.00	90.70	89.30	6,537.93	4.22	3,328.53	3,328.51	0.35	-0.31	-0.16	
9,690.00	90.20	89.10	6,537.43	5.10	3,391.52	3,391.50	0.85	-0.79	-0.32	
9,754.00	90.00	89.40	6,537.32	5.94	3,455.52	3,455.50	0.56	-0.31	0.47	
9,817.00	90.80	89.10	6,536.88	6.76	3,518.51	3,518.49	1.36	1.27	-0.48	
9,880.00	89.50	89.70	6,536.72	7.42	3,581.50	3,581.48	2.27	-2.06	0.95	
9,944.00	90.00	89.60	6,537.00	7.81	3,645.50	3,645.48	0.80	0.78	-0.16	
10,007.00	88.50	89.40	6,537.82	8.36	3,708.49	3,708.46	2.40	-2.38	-0.32	
10,071.00	88.60	90.10	6,539.44	8.64	3,772.47	3,772.44	1.10	0.16	1.09	
10,134.00	88.60	91.10	6,540.98	7.98	3,835.45	3,835.42	1.59	0.00	1.59	
10,196.00	87.70	90.90	6,542.98	6.90	3,897.40	3,897.38	1.49	-1.45	-0.32	
10,260.00	86.50	90.30	6,546.22	6.23	3,961.32	3,961.29	2.10	-1.88	-0.94	
10,323.00	86.40	91.30	6,550.12	5.35	4,024.19	4,024.17	1.59	-0.16	1.59	
10,386.00	87.60	91.70	6,553.42	3.70	4,087.08	4,087.06	2.01	1.90	0.63	
10,449.00	87.60	92.10	6,556.06	1.62	4,149.99	4,149.98	0.63	0.00	0.63	
10,481.00	88.20	92.50	6,557.23	0.33	4,181.94	4,181.93	2.25	1.88	1.25	
10,534.00	88.20	92.50	6,558.89	-1.98	4,234.87	4,234.86	0.00	0.00	0.00	
10,909.69	88.94	90.27	6,565.00	-9.71	4,611.32	4,611.33	0.63	0.20	-0.59	
PBHL#2[CF#2H]										

Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude Longitude	
- hit/miss target									
- Shape									
PBHL#2[CF#2H]	0.00	0.00	6,565.00	-9.71	4,611.32	7,063,600.57	228,486.79	32° 55' 1.601 N 104° 10' 23.800 W	
- survey hits target									
- Point									
PBHL#1[CF#2H]		0.00	6,540.62	-9.71	4,611.32	7,063,600.57	228,486.79	32° 55' 1.601 N 104° 10' 23.800 W	
- survey misses by 27.72ft at 10909.29ft MD (6568.27 TVD, -11.04 N, 4609.91 E)									
- Point									
PBHL#3[CF#2H]		0.00	6,537.00	-9.71	4,611.32	7,063,600.57	228,486.79	32° 55' 1.601 N 104° 10' 23.800 W	
- survey misses by 31.33ft at 10909.23ft MD (6568.27 TVD, -11.04 N, 4609.85 E)									
- Point									

Survey Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
6,114.00	6,113.37	8.19	-1.06	First MWD Survey
10,481.00	6,557.23	0.33	4,181.94	Last MWD Survey
10,534.00	6,558.89	-1.98	4,234.87	Proj To Bit

Checked By: _____ Approved By: _____ Date: _____

Cimarex Energy Co., Inc.
Crow Flats 16 State #2H - MWD Survey #1

Eddy Co., New Mexico
Crow Flats 16 State #2H

Measured Dogleg Depth Rate (ft) (°/100ft)	Incl.	Azim.	Vertical Depth (ft)	Northings (ft)	Eastings (ft)	Vertical Section (ft)
6100.00	3.781	90.757	6099.45	8.26 N	2.47 W	-2.48
0.00						
6114.00	7.800	93.500	6113.37	8.19 N	1.06 W	-1.07
28.76						
6145.00	13.600	96.200	6143.82	7.67 N	4.67 E	4.66
18.77						
6177.00	18.700	94.300	6174.55	6.88 N	13.53 E	13.52
16.02						
6209.00	24.800	91.600	6204.26	6.30 N	25.37 E	25.36
19.31						
6241.00	29.800	90.200	6232.68	6.09 N	40.04 E	40.03
15.75						
6273.00	33.800	90.400	6259.88	6.00 N	56.90 E	56.88
12.50						
6304.00	37.500	91.100	6285.06	5.76 N	74.96 E	74.95
12.01						
6336.00	41.200	90.800	6309.80	5.42 N	95.24 E	95.23
11.58						
6368.00	44.500	89.900	6333.26	5.30 N	117.00 E	116.99
10.49						
6399.00	47.400	89.800	6354.81	5.36 N	139.28 E	139.27
9.36						
6431.00	50.500	91.200	6375.82	5.14 N	163.41 E	163.40
10.23						
6463.00	53.600	91.600	6395.50	4.52 N	188.63 E	188.62
9.74						
6495.00	56.600	91.500	6413.81	3.81 N	214.86 E	214.85
9.38						
6526.00	60.300	90.300	6430.03	3.40 N	241.27 E	241.26
12.38						
6557.00	63.800	90.700	6444.55	3.16 N	268.65 E	268.64
11.35						
6589.00	66.900	90.500	6457.90	2.86 N	297.73 E	297.72
9.70						
6620.00	69.800	90.600	6469.33	2.58 N	326.54 E	326.53
9.36						
6653.00	73.300	90.700	6479.78	2.22 N	357.83 E	357.83
10.61						
6684.00	77.000	90.100	6487.72	2.02 N	387.79 E	387.79
12.08						
6716.00	79.300	89.800	6494.29	2.04 N	419.11 E	419.10
7.25						
6748.00	82.100	89.700	6499.46	2.18 N	450.69 E	450.68
8.76						
6779.00	85.600	89.800	6502.78	2.32 N	481.50 E	481.50
11.29						
6811.00	88.100	90.200	6504.54	2.32 N	513.45 E	513.44
7.91						
6842.00	88.400	90.300	6505.49	2.18 N	544.44 E	544.43
1.02						
6905.00	88.400	89.700	6507.25	2.18 N	607.41 E	607.41

0.95						
6969.00	89.200	91.000	6508.59	1.79 N	671.39 E	671.39
2.38						
7031.00	90.500	90.600	6508.75	0.92 N	733.39 E	733.38
2.19						
7095.00	91.600	90.400	6507.58	0.37 N	797.37 E	797.37
1.75						
7158.00	91.800	89.300	6505.71	0.53 N	860.34 E	860.34
1.77						
7222.00	91.400	89.100	6503.92	1.42 N	924.31 E	924.31
0.70						
7285.00	91.500	89.000	6502.33	2.47 N	987.28 E	987.28
0.22						
7317.00	91.000	88.900	6501.63	3.05 N	1019.27 E	1019.26
1.59						
7349.00	89.400	89.400	6501.52	3.53 N	1051.27 E	1051.26
5.24						
7380.00	89.700	89.500	6501.76	3.83 N	1082.26 E	1082.25
1.02						
7443.00	89.800	89.100	6502.03	4.60 N	1145.26 E	1145.24
0.65						
7506.00	89.000	88.400	6502.69	5.97 N	1208.24 E	1208.22
1.69						
7539.00	87.900	88.800	6503.59	6.78 N	1241.22 E	1241.20
3.55						
7570.00	88.000	89.100	6504.70	7.34 N	1272.19 E	1272.17
1.02						
7633.00	87.200	90.100	6507.33	7.78 N	1335.13 E	1335.11
2.03						
7696.00	87.200	90.300	6510.41	7.56 N	1398.06 E	1398.04
0.32						
7728.00	88.300	90.600	6511.67	7.31 N	1430.03 E	1430.01
3.56						
7759.00	88.200	90.600	6512.61	6.99 N	1461.01 E	1461.00
0.32						
7822.00	89.400	91.100	6513.93	6.05 N	1523.99 E	1523.98
2.06						
7854.00	89.600	90.500	6514.21	5.61 N	1555.99 E	1555.97
1.98						
7918.00	88.500	89.500	6515.27	5.61 N	1619.98 E	1619.96
2.32						
7981.00	88.300	90.400	6517.03	5.66 N	1682.95 E	1682.94
1.46						
8044.00	88.400	90.300	6518.85	5.28 N	1745.92 E	1745.91
0.22						
8107.00	88.200	90.600	6520.72	4.78 N	1808.89 E	1808.88
0.57						
8171.00	88.700	90.100	6522.45	4.39 N	1872.87 E	1872.86
1.10						
8234.00	88.800	90.400	6523.82	4.12 N	1935.85 E	1935.84
0.50						
8297.00	88.800	90.600	6525.14	3.57 N	1998.84 E	1998.83
0.32						
8361.00	88.900	90.200	6526.43	3.12 N	2062.82 E	2062.81
0.64						
8424.00	88.600	90.800	6527.80	2.57 N	2125.81 E	2125.80
1.06						
8488.00	89.000	89.800	6529.14	2.24 N	2189.79 E	2189.78
1.68						
8552.00	88.400	89.800	6530.59	2.46 N	2253.77 E	2253.76
0.94						
8615.00	88.600	89.800	6532.24	2.68 N	2316.75 E	2316.74
0.32						
8678.00	88.600	89.700	6533.78	2.95 N	2379.73 E	2379.72

0.16							
8741.00	88.400	89.600	6535.43	3.34 N	2442.71 E	2442.70	
0.35							
8805.00	88.200	89.200	6537.33	4.01 N	2506.68 E	2506.66	
0.70							
8867.00	88.400	90.200	6539.17	4.33 N	2568.65 E	2568.63	
1.64							
8930.00	88.600	89.800	6540.82	4.33 N	2631.63 E	2631.61	
0.71							
9056.00	90.500	91.100	6541.81	3.34 N	2757.61 E	2757.60	
1.83							
9119.00	90.200	91.100	6541.42	2.13 N	2820.60 E	2820.59	
0.48							
9183.00	90.300	90.600	6541.14	1.18 N	2884.59 E	2884.58	
0.80							
9247.00	89.900	88.500	6541.03	1.69 N	2948.58 E	2948.57	
3.34							
9310.00	90.200	88.600	6540.98	3.28 N	3011.56 E	3011.55	
0.50							
9373.00	90.400	89.800	6540.65	4.16 N	3074.55 E	3074.54	
1.93							
9436.00	90.200	90.300	6540.32	4.11 N	3137.55 E	3137.54	
0.85							
9500.00	90.800	90.700	6539.76	3.55 N	3201.55 E	3201.53	
1.13							
9563.00	90.900	89.400	6538.82	3.49 N	3264.54 E	3264.53	
2.07							
9627.00	90.700	89.300	6537.93	4.22 N	3328.53 E	3328.51	
0.35							
9690.00	90.200	89.100	6537.43	5.10 N	3391.52 E	3391.50	
0.85							
9754.00	90.000	89.400	6537.32	5.94 N	3455.52 E	3455.50	
0.56							
9817.00	90.800	89.100	6536.88	6.76 N	3518.51 E	3518.49	
1.36							
9880.00	89.500	89.700	6536.72	7.42 N	3581.50 E	3581.48	
2.27							
9944.00	90.000	89.600	6537.00	7.81 N	3645.50 E	3645.48	
0.80							
10007.00	88.500	89.400	6537.82	8.36 N	3708.49 E	3708.46	
2.40							
10071.00	88.600	90.100	6539.44	8.64 N	3772.47 E	3772.44	
1.10							
10134.00	88.600	91.100	6540.98	7.98 N	3835.45 E	3835.42	
1.59							
10196.00	87.700	90.900	6542.98	6.90 N	3897.40 E	3897.38	
1.49							
10260.00	86.500	90.300	6546.22	6.23 N	3961.32 E	3961.29	
2.10							
10323.00	86.400	91.300	6550.12	5.35 N	4024.19 E	4024.17	
1.59							
10386.00	87.600	91.700	6553.42	3.70 N	4087.08 E	4087.06	
2.01							
10449.00	87.600	92.100	6556.06	1.62 N	4149.99 E	4149.98	
0.63							
10481.00	88.200	92.500	6557.23	0.33 N	4181.94 E	4181.93	
2.25							
10534.00	88.200	92.500	6558.89	1.98 S	4234.87 E	4234.86	
0.00							

All data are in feet unless otherwise stated. Directions and coordinates are relative to True North.
 Vertical depths are relative to WELL. Northings and Eastings are relative to well.
 Page 3

The Dogleg Severity is in Degrees per 100 feet.
Vertical Section is from Slot and calculated along an Azimuth of 90.121° (True).

Coordinate System is North American Datum 1983 US State Plane 1983, Texas North Central Zone.

Central meridian is -98.500°.

Grid Convergence at Surface is -3.102°.

Based upon Minimum Curvature type calculations, at a Measured Depth of 10534.00ft., the Bottom Hole Displacement is 4234.87ft., in the Direction of 90.121° (True).