

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCB- Artesia

FORM APPROVED
OMB No 1004-0137
Expires: July 31, 2010

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5 Lease Serial No.
NMNM92160

1a Type of Well ☐ Oil Well ☒ Gas Well ☐ Dry ☐ Other
b. Type of Completion ☒ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr
Other _____

6 If Indian, Allottee or Tribe Name

7 Unit or CA Agreement Name and No.

2. Name of Operator Contact: NATALIE E KRUEGER
CIMAREX ENERGY COMPANY OF ~~CD~~ Mail: nkrueger@cimarex.com

8 Lease Name and Well No.
CHOSA DRAW 27 FEDERAL 3

3. Address 600 NORTH MARIENFELD STREET SUITE 600
MIDLAND, TX 79701 3a. Phone No. (include area code)
Ph: 432-620-1936

9. API Well No.
30-015-37180-00-S1

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
Sec 27 T25S R26E Mer NMP
At surface SESE 2480FSL 850FEL

10 Field and Pool, or Exploratory
~~WILDCAT~~ **SAGE DRAW**

At top prod interval reported below
Sec 27 T25S R26E Mer NMP
At total depth NESE 1984FSL 667FWL

11. Sec., T, R, M, or Block and Survey
or Area Sec 27 T25S R26E Mer NMP

12. County or Parish
EDDY 13. State
NM

14 Date Spudded
04/02/2011 15. Date T.D. Reached
05/24/2011 16. Date Completed
☐ D & A ☒ Ready to Prod.
06/18/2011

17. Elevations (DF, KB, RT, GL)*
3272 GL

18. Total Depth: MD 13250
TVD 9506 19 Plug Back T.D.: MD 13200
TVD 9506 20. Depth Bridge Plug Set: MD
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
POROSITY&RESIST 22. Was well cored? ☒ No ☐ Yes (Submit analysis)
Was DST run? ☒ No ☐ Yes (Submit analysis)
Directional Survey? ☐ No ☒ Yes (Submit analysis)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt (#/ft)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sk. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17.500	13.375 H-40	48.0	0	406		490		0	
12.250	9.625 J-55	40.0	0	1764		870		0	
8.750	7.000 P-110	26.0	0	8800	1513	1335		0	
6.125	4.500 P-110	17.0	8671	13248		340		8671	

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2.875	8649	8643						

25. Producing Intervals 26. Perforation Record

Formation	Top.	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) WOLFCAMP	9502	13151	9502 TO 9760	0.420	48	Open, Wolfcamp
B)			9885 TO 10143	0.420	48	Open, Wolfcamp
C)			10268 TO 10526	0.420	48	Open, Wolfcamp
D)			10651 TO 11162	0.420	48	Open, Wolfcamp

27 Acid, Fracture, Treatment, Cement Squeeze, Etc

Depth Interval	Amount and Type of Material
9502 TO 9760	gal 15# XL Borate, 407227# 30/70 sand
9502 TO 9760	404,824 GAL 15# XL BORATE & 407,227# 30/70 SAND
9760 TO 11162	374,372 GAL 15# XL BORATE & 362,000# 30/70 SAND, SEE LAST 6 STAGES IN BOX 53
9885 TO 9885	383,626 GAL 15# XL BORATE & 375,826# 30/70 SAND

28 Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
06/28/2011	07/20/2011	24	→	180.0	3957.0	424.0	59.9	0.69	PGW
Choke Size	Tbg Press Flwg	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	
30/64	SI	500.0	→	180	3957	424	21983	PGW	

28a Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
			→						
Choke Size	Tbg Press Flwg	Csg Press	24 Hr Rate	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	
	SI		→						

(See Instructions and spaces for additional data on reverse side)

ELECTRONIC SUBMISSION #114181 VERIFIED BY THE BLM WELL INFORMATION SYSTEM

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

ACCEPTED FOR RECORD

AUG 7 2011

BUREAU OF LAND MANAGEMENT
CARLOS H. FLORES

RECEIVED
AUG 15 2011
MOCD ARTESIA

28b. Production - Interval C									
Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
Choke Size	Tbg Press FWG SI	Csg Press	24 Hr Rate →	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	

28c. Production - Interval D									
Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr API	Gas Gravity	Production Method
Choke Size	Tbg Press. Flwg SI	Csg Press	24 Hr Rate →	Oil BBL	Gas MCF	Water BBL	Gas Oil Ratio	Well Status	

29. Disposition of Gas (Sold, used for fuel, vented, etc.)

30. Summary of Porous Zones (Include Aquifers): Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.	31. Formation (Log) Markers
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Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top
					Meas. Depth

32. Additional remarks (include plugging procedure):	
Additional Wellbore info:	
Set 7 inch casing to 8800 and cemented, then drilled out of bottom of 7 inch shoe to pilot depth @ 10250. Set 2 cement kickoff plugs. Set cement kickoff plug from 8825-10250 with 300 sx Plugcem H. Tagged cement @ 8910 and dressed to 9070. Set cement plug @ 9070 with 100 sx Cemex Premium H and tagged plug @ 8810. Kicked off lateral @ 8821.	

Set 7 inch casing to 8800 and cemented, then drilled out of bottom of 7 inch shoe to pilot depth @ 10250. Set 2 cement kickoff plugs. Set cement kickoff plug from 8825-10250 with 300 sx Pluggcem H. Tagged cement @ 8910 and dressed to 9070. Set cement plug @ 9070 with 100 sx Cemex Premium H and tagged plug @ 8810. Kicked off lateral @ 8821.

33. Circle enclosed attachments:

1. Electrical/Mechanical Logs (1 full set req'd.)	2. Geologic Report	3. DST Report	4. Directional Survey
5. Sundry Notice for plugging and cement verification	6. Core Analysis	7. Other:	

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions).

Electronic Submission #114181 Verified by the BLM Well Information System.
For CIMAREX ENERGY COMPANY OF CO, sent to the Carlsbad
Committed to AFMSS for processing by KURT SIMMONS on 08/01/2011 (11KMS2210SE)

Name (please print) NATALIE E KRUEGER Title REGULATORY ANALYST

Signature (Electronic Submission) . Date 07/29/2011

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ** REVISED ****

Additional data for transaction #114181 that would not fit on the form

26. Perforation Record, continued

Perf Interval	Size	No. Holes	Perf Status
11033 TO 11289	0.420	48	Open, Wolfcamp
11431 TO 11669	0.420	48	Open, Wolfcamp
11793 TO 12049	0.420	48	Open, Wolfcamp
12173 TO 12429	0.420	48	Open, Wolfcamp
12553 TO 12806	0.420	48	Open, Wolfcamp
12886 TO 13151	0.420	48	Open, Wolfcamp

27. Acid, Fracture, Treatment, Cement Squeeze, etc., continued

Depth Interval	Amount and Type of Material
9885 TO 10143	gal 15# XL Borate, 375826# 30/70 sand
10268 TO 10526	gal 15# XL Borate, 350455# 30/70 sand
10268 TO 10526	374,372 GAL 15# XL BORATE & 350,455# 30/70 SAND
10651 TO 11162	gal 15# XL Borate, 362000# 30/70 sand
11033 TO 112899	gal 15# XL Borate, 365170# 30/70 sand
11413 TO 11669	gal 15# XL Borate, 332731# 30/70 PRC
11793 TO 12049	gal 15# XL Borate, 359069# 30/70 PRC
12173 TO 12429	gal 15# XL Borate, 359171# 40/70 PRC
12553 TO 12806	gal 15# XL Borate, 358902# 40/70 PRC
12886 TO 13151	gal 15# XL Borate, 357157# 40/70 PRC

32. Additional remarks, continued

Lateral Casing breakdown: Hanger @ 8656. BTC from 8671-10083. LTC from 10083-13248.

Additional Perf Intervals:

11033-11289 0.42 6 spf 48 holes, frac'd with 344,655 gal 15# XL Borate & 365,170# 30/70 Sand
11413-11669 0.42 6 spf 48 holes, frac'd with 365,404 gal 15# XL Borate & 332,731# 30/70 Sand
11793-12049 0.42 6 spf 48 holes, frac'd with 384,541 gal 15# XL Borate & 359,069# 30/70 Sand
12173-12429 0.42 6 spf 48 holes, frac'd with 385,696 gal 15# XL Borate & 359,171# 40/70 PRC
12553-12809 0.42 6 spf 48 holes, frac'd with 394,876 gal 15# XL Borate & 358,902# 40/70 PRC
12886-13151 0.42 6 spf 48 holes, frac'd with 398,357 gal 15# XL Borate & 357,157# 40/70 PRC

DISTRICT I
1015 N. Branch Dr., P.O. Box 101 88210

DISTRICT II
1831 W. Grand Avenue, Arroyo, NM 88410

DISTRICT III
1000 Rio Grande Rd., Arroyo, NM 87410

DISTRICT IV
1810 N. N. L. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-102
Revised October 18, 2003

Submit to Appropriate District Office
Oleto Lasso -- 4 Copies
Yon Lasso -- 5 Copies

WELL LOCATION AND ACREAGE DEDICATION PLAT

AMENDED REPORT

API Number 30-015-37180	Pool Code 96890	Pool Name Sage Draw	Well Name Wolfcamp Well East
Property Code 32670	Property Name CHOSA DRAW "27" FEDERAL		Well Number 3
CONID No. 162683	Operator Name CIMAREX ENERGY CO. OF COLORADO		Elevation 3272'

Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	27	25 S	26 E		2480	SOUTH	850	EAST	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
L	27	25 S	26 E		1984	SOUTH	667	WEST	EDDY
Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No. NSL-6028-A						

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 surface 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>Natalie Krueger</i> 1/26/2011 Signature Date Natalie Krueger 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 this same is true and correct to the best of my belief. JANUARY 9, 2008 Date Surveyed Signature of Professional Surveyor Professional Surveyor W.O. [Signature] Certificate No. Gary L. Jones 7077 WASH. SURVEYOR



Chosa Draw 27 Fed 3 Eddy Co., NM

KD ELEV: 3294
GL ELEV: 3272

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	8751.90	0.40	225.13	8745.56	-40.43	-44.04	0.00	0.00	-35.71	
2	8837.54	0.40	225.13	8835.10	-40.36	-43.61	0.00	0.00	-35.23	
3	9151.66	35.00	185.20	9126.51	-161.59	33.71	12.00	319.74	-12.17	
4	10030.33	91.35	270.00	9545.50	-506.04	-448.96	16.00	85.07	609.94	
5	13252.27	91.35	270.00	9472.57	-506.00	-3770.00	0.00	0.00	3883.01	Pbhl

WELL DETAILS

Name	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
Fed 3	0.00	0.00	400250.60	559462.70	32°06'01.269N	104°16'29.289W	N/A

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Shape
Pbhl	9472.57	-506.00	-3770.00	399750.60	555692.70	Rectangle (3222x150)

SITE DETAILS

Chosa Draw 27 Fed 3
Site Centre Northing: 400250.60
Easting: 559462.70
Ground Level: 3272.00
Positional Uncertainty: 0.60
Convergence: 0.03

LEGEND

- Fed 3, L Plan #6
- Fed 3, L Cyre
- Wt Svy



Azimuths to Grid North
True North: -0.03°
Magnetic North: 7.88°
Magnetic Field
Strength: 48500nT
Dip Angle: 59.95°
Date: 4/30/2011
Model: IGRF2010

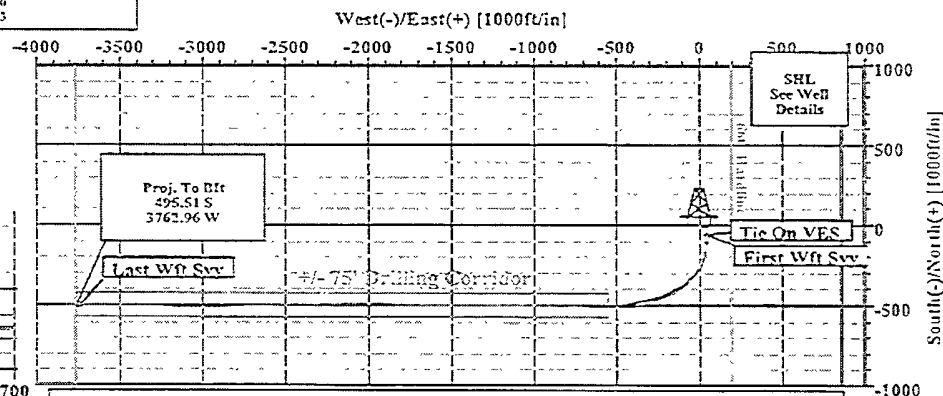
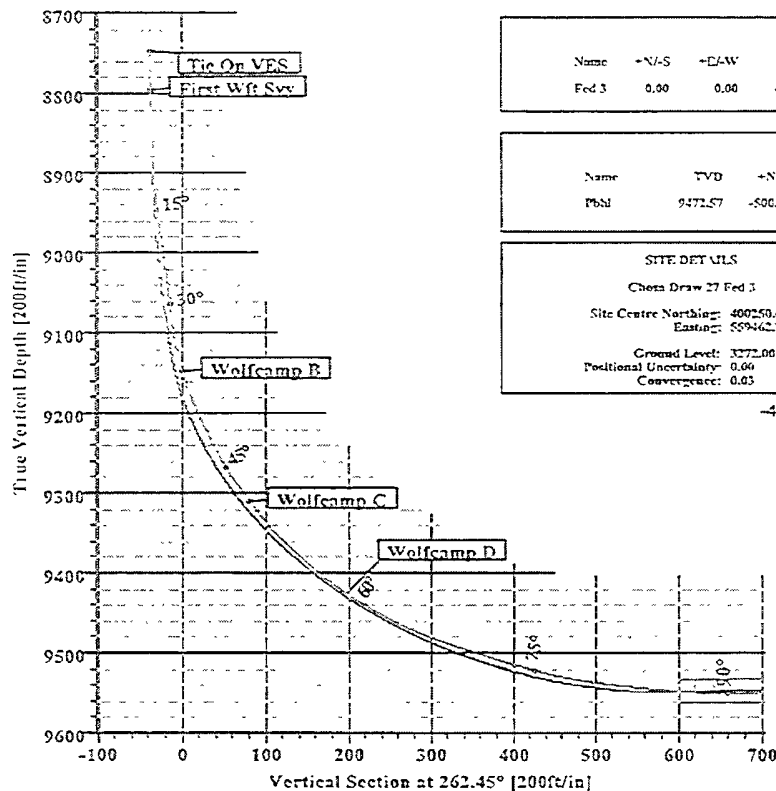
Total Correction to Grid North = 7.91°

FIELD DETAILS

Eddy Co., NM (NAD 83)

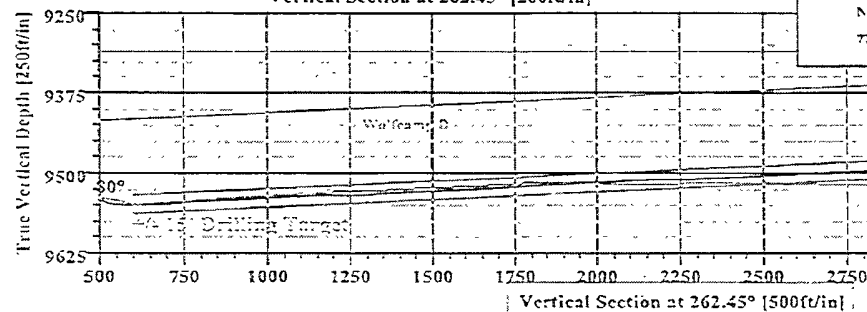
Geodetic System: US State Plane Coordinate System 1983
Datum: GRS 1980
Zone: New Mexico, Eastern Zone
Magnetic Model: IGRF2010

System Datum: Mean Sea Level
Local North: Grid North



Survey: Wt Svy (Fed 3/1)

No	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec
77	13258.00	90.36	269.93	9505.60	-495.51	-3762.96	0.00	0.00	3795.44



Weatherford

Survey: Wt Svy (Fed 3/1)

Created By: Russell W. Joyner

Date: 5/25/2011

30-015-3718D



Weatherford International Ltd.

WFT Survey Report X & Y's



Weatherford

Company: Cimarex Energy		Date: 5/25/2011	Time: 05:14:34	Page: 1
Field: Eddy Co., NM (NAD 83)		Co-ordinate(NE) Reference:	Well: Fed 3, Grid North	
Site: Chosa Draw 27 Fed 3		Vertical (TVD) Reference:	SITE 3294.0	
Well: Fed 3		Section (VS) Reference:	Well (0.00N,0.00E,262.45Azi)	
Wellpath: 1		Survey Calculation Method:	Minimum Curvature	Db: Sybase

Survey: Wft Svy	Start Date: 5/3/2011
Company: Weatherford International Ltd.	Engineer: Russell W. Joyner
Tool: MWD,MWD - Standard	Tied-to: User Defined

Field: Eddy Co., NM (NAD 83)	
Map System: US State Plane Coordinate System 1983	Map Zone: New Mexico, Eastern Zone
Geo Datum: GRS 1980	Coordinate System: Well Centre
Sys Datum: Mean Sea Level	Geomagnetic Model: IGRF2010

Site: Chosa Draw 27 Fed 3	
Site Position:	Northing: 400250.60 ft
From: Map	Easting: 559462.70 ft
Position Uncertainty: 0.00 ft	Latitude: 32 6 1.269 N
Ground Level: 3272.00 ft	Longitude: 104 16 29.289 W
	North Reference: Grid
	Grid Convergence: 0.03 deg

Well: Fed 3		Slot Name:	
Well Position: +N/-S 0.00 ft	Northing: 400250.60 ft	Latitude: 32 6 1.269 N	
+E/-W 0.00 ft	Easting: 559462.70 ft	Longitude: 104 16 29.289 W	
Position Uncertainty: 0.00 ft			

Wellpath: 1	Drilled From: Surface
Current Datum: SITE	Tie-on Depth: 0.00 ft
Magnetic Data: 4/30/2011	Above System Datum: Mean Sea Level
Field Strength: 48500 nT	Declination: 7.91 deg
Vertical Section: Depth From (TVD)	Mag Dip Angle: 59.95 deg
	+N/-S ft
	+E/-W ft
	Direction deg
0.00	0.00
0.00	262.45

Survey										
MD ft	Incl deg	Azimuth deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comments
8751.00	0.40	225.13	8748.56	-60.43	44.04	0.00	-35.71	400190.17	559506.74	Tie On VES
8799.00	0.30	273.26	8796.56	60.54	43.80	0.62	-35.46	400190.06	559506.50	First Wft Svy
8853.00	0.46	274.43	8850.56	-60.52	43.44	0.30	-35.11	400190.08	559506.14	
8884.00	5.00	201.09	8881.52	-61.77	42.83	15.77	-34.34	400188.83	559505.53	
8915.00	10.16	198.49	8912.24	-65.62	41.47	16.68	-32.49	400184.98	559504.17	
8948.00	14.78	197.38	8944.45	-72.41	39.29	14.02	-29.43	400178.19	559501.99	
8979.00	18.90	198.23	8974.12	-80.95	36.54	13.31	-25.58	400169.65	559499.24	
9011.00	22.91	192.63	9004.01	-91.96	33.55	13.99	-21.17	400158.64	559496.25	
9043.00	26.46	187.16	9033.08	-105.11	31.30	13.18	-17.21	400145.49	559494.00	
9074.00	29.34	183.83	9060.48	-119.55	29.93	10.56	-13.96	400131.05	559492.63	
9106.00	33.02	182.35	9087.05	-136.09	29.05	11.75	-10.91	400114.51	559491.75	
9137.00	36.25	185.38	9113.35	-153.66	27.85	11.80	-7.40	400096.94	559490.55	
9169.00	37.79	191.25	9138.91	-172.70	25.05	12.04	-2.12	400077.90	559487.75	
9200.00	39.06	196.78	9163.20	-191.37	20.37	11.82	4.97	400059.23	559483.07	
9232.00	41.29	200.53	9187.66	-210.92	13.76	10.28	14.09	400039.68	559476.46	
9264.00	42.97	202.02	9211.39	-230.92	5.96	6.11	24.45	400019.68	559468.66	
9295.00	43.79	201.90	9233.92	-250.67	-2.00	2.66	34.94	399999.93	559460.70	
9327.00	44.36	204.48	9256.91	-271.12	-10.76	5.88	46.32	399979.48	559451.94	
9358.00	45.58	208.44	9278.85	-290.72	-20.53	9.85	58.57	399959.88	559442.17	
9390.00	47.06	213.57	9300.95	-310.54	-32.45	12.48	73.00	399940.06	559430.25	
9420.00	47.75	217.33	9321.26	-328.52	-45.26	9.51	88.06	399922.08	559417.44	
9452.00	48.03	221.09	9342.72	-346.91	-60.26	8.76	105.35	399903.69	559402.44	
9483.00	49.89	226.41	9363.07	-363.79	-76.45	14.41	123.61	399886.81	559386.25	
9515.00	52.11	230.64	9383.19	-380.25	-95.09	12.23	144.26	399870.35	559367.61	



Weatherford International Ltd.
WFT Survey Report X & Y's



Weatherford

Company: Cimarex Energy
Field: Eddy Co., NM (NAD 83)
Site: Chosa Draw 27 Fed 3
Well: Fed 3
Wellpath: 1

Date: 5/25/2011 Time: 05:14:34 Page: 2
Co-ordinate(NE) Reference: Well Fed 3, Grid North
Vertical (TVD) Reference: SITE 3294.0
Section (VS) Reference: Well (0.00N,0.00E,262.45Azi)
Survey Calculation Method: Minimum Curvature Db: Sybase

Survey										
MD ft	Incl deg	Azlm deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
9547.00	53.92	233.77	9402.44	-395.91	-115.29	9.64	166.34	399854.69	559347.41	
9578.00	56.38	236.35	9420.15	-410.47	-136.15	10.47	188.93	399840.13	559326.55	
9609.00	59.19	239.42	9436.68	-424.40	-158.36	12.34	212.78	399826.20	559304.34	
9641.00	62.08	242.63	9452.38	-437.89	-182.75	12.57	238.74	399812.71	559279.95	
9672.00	65.49	245.54	9466.07	-450.04	-207.77	13.85	265.13	399800.56	559254.93	
9704.00	68.55	247.99	9478.56	-461.65	-234.83	11.88	293.49	399788.95	559227.87	
9735.00	70.72	250.40	9489.35	-471.97	-262.00	10.10	321.78	399778.63	559200.70	
9767.00	72.34	253.01	9499.49	-481.49	-290.81	9.25	351.59	399769.11	559171.89	
9799.00	72.85	255.82	9509.06	-489.69	-320.22	8.53	381.83	399760.91	559142.48	
9830.00	73.65	258.52	9518.00	-496.28	-349.16	8.73	411.38	399754.32	559113.64	
9862.00	76.48	260.34	9526.25	-501.95	-379.55	10.41	442.25	399748.65	559083.15	
9894.00	79.70	261.98	9532.85	-506.76	-410.49	11.24	473.55	399743.84	559052.21	
9925.00	81.76	264.21	9537.84	-510.43	-440.86	9.72	504.14	399740.17	559021.84	
9957.00	83.73	267.87	9541.89	-512.62	-472.52	12.91	535.81	399737.98	558990.18	
9988.00	84.78	270.60	9544.89	-513.01	-503.36	9.63	566.44	399737.59	558959.34	
10061.00	87.35	272.90	9550.00	-510.73	-576.14	4.65	638.29	399739.87	558886.56	
10092.00	91.36	274.15	9550.35	-508.83	-607.07	13.55	668.70	399741.77	558855.63	
10124.00	94.45	274.32	9548.73	-506.47	-638.94	9.67	699.98	399744.13	558823.76	
10187.00	93.52	270.46	9544.35	-503.85	-701.72	6.29	761.87	399746.75	558760.98	
10282.00	91.60	268.62	9540.10	-504.61	-796.61	2.80	856.04	399745.99	558666.09	
10376.00	91.60	271.24	9537.48	-504.73	-890.57	2.79	949.20	399745.87	558572.13	
10471.00	92.47	271.27	9534.11	-502.65	-985.48	0.92	1043.02	399747.95	558477.22	
10566.00	91.17	272.34	9531.09	-499.66	-1080.39	1.77	1136.70	399750.94	558382.31	
10661.00	90.93	270.41	9529.35	-497.38	-1175.34	2.05	1230.53	399753.22	558287.36	
10755.00	90.68	268.85	9528.03	-497.99	-1269.32	1.68	1323.78	399752.61	558193.38	
10850.00	92.10	270.22	9525.72	-498.76	-1364.29	2.08	1418.02	399751.84	558098.41	
10945.00	91.05	269.72	9523.11	-498.81	-1459.25	1.22	1512.16	399751.79	558003.45	
11039.00	91.48	267.63	9521.04	-500.98	-1553.20	2.27	1605.58	399749.62	557909.50	
11134.00	91.30	271.25	9518.73	-501.91	-1648.15	3.01	1699.83	399748.69	557814.65	
11228.00	91.97	272.61	9516.05	-498.74	-1742.05	1.61	1792.50	399751.86	557720.65	
11322.00	89.01	271.00	9515.24	-495.78	-1835.99	3.58	1885.24	399754.82	557626.71	
11417.00	89.45	270.82	9516.52	-494.27	-1930.07	0.50	1979.10	399756.33	557531.73	
11511.00	89.20	270.57	9517.63	-493.13	-2024.86	0.38	2072.21	399757.47	557437.74	
11605.00	89.94	269.27	9518.33	-493.27	-2118.95	1.59	2165.41	399757.33	557343.75	
11699.00	91.65	269.28	9516.87	-494.45	-2212.93	2.03	2258.73	399756.15	557249.77	
11793.00	90.06	269.69	9515.30	-495.30	-2306.91	1.95	2352.00	399755.30	557155.79	
11888.00	89.69	270.33	9515.51	-495.28	-2401.91	0.78	2446.17	399755.32	557060.79	
11983.00	88.77	270.03	9516.78	-494.98	-2496.90	1.02	2540.30	399755.62	556965.80	
12077.00	89.01	268.39	9518.60	-496.28	-2590.87	1.76	2633.62	399754.32	556871.83	
12171.00	90.26	267.22	9519.20	-499.88	-2684.79	1.82	2727.21	399750.72	556777.91	
12266.00	90.80	267.47	9518.32	-504.28	-2779.69	0.63	2821.86	399746.32	556683.01	
12361.00	90.43	268.44	9517.30	-507.67	-2874.62	1.09	2916.41	399742.93	556588.08	
12456.00	90.68	267.41	9516.38	-511.11	-2969.55	1.12	3010.97	399739.49	556493.15	
12551.00	90.93	271.91	9515.05	-511.67	-3064.51	4.74	3105.18	399738.93	556398.10	
12646.00	91.79	272.68	9512.79	-507.87	-3159.41	1.21	3198.76	399742.73	556303.29	
12741.00	93.09	273.47	9508.75	-502.78	-3254.18	1.60	3292.04	399747.82	556208.52	
12835.00	90.99	272.02	9505.40	-498.28	-3348.01	2.71	3384.46	399752.32	556114.69	
12930.00	89.69	270.15	9504.84	-496.48	-3442.98	2.40	3478.37	399754.12	556019.72	
13024.00	90.06	270.80	9505.05	-495.70	-3536.98	0.80	3571.45	399754.90	555925.72	
13119.00	88.77	269.66	9506.02	-495.32	-3631.97	1.81	3665.57	399755.28	555830.73	
13214.00	91.05	270.11	9506.16	-495.51	-3726.96	2.45	3759.76	399755.09	555735.74	
13226.00	90.86	269.98	9505.96	-495.50	-3738.96	1.92	3771.65	399755.10	555723.74	Last Wlt Svy



Weatherford International Ltd.
WIT Survey Report X & Y's



Weatherford

Company: Cimarex Energy	Date: 5/25/2011	Time: 05:14:34	Page: 3
Field: Eddy Co., NM (NAD 83)	Co-ordinate(NE) Reference: Well, Fed 3, Grid North		
Site: Chosa Draw 27 Fed 3	Vertical (TVD) Reference: SITE 3294.0		
Well: Fed 3	Section (VS) Reference: Well (0 00N,0.00E,262 45Azi)		
Wellpath: 1	Survey Calculation Method: Minimum Curvature	Db: Sybase	

Survey

MD ft	Incl deg	Azimuth deg	TVD ft	N/S ft	E/W ft	DLS deg/100ft	VS ft	MapN ft	MapE ft	Comment
13250.00	90.86	269.98	9505.60	-495.51	-3762.96	0.00	3795.44	399755.09	555699.74	Proj. To Bit

Annotation

MD ft	TVD ft	
8751.00	8748.56	Tie On VES
8799.00	8796.56	First Wit Svy
13226.00	9505.96	Last Wit Svy
13250.00	9505.60	Proj. To Bit