Form 3160-4
(April 2004)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD-ARTESIA

FORM APPROVED
OMB NO. 1004-0137
Expires March 31, 2007

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. SHL NM-9987 BHL NM-89878

1a. Type of Well [X] Oil Well [ ] Gas Well [ ] Dry [ ] Other
b Type of Completion: [X] 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. Pending

2. Name of Operator: Cimarex Energy Co. of Colorado

8 Lease Name and Well No. Pavo Mesa 30 Federal Com No. 1

3. Address: PO Box 140907; Irving, TX 75014

3a Phone No. *(include area code)*: 972-443-6489

9. API Well No. 30-015-35918

4. Location of Well *(Report Location clearly and in accordance with Federal requirements)**

10 Field and Pool, or Exploratory: Pavo Mesa; Abo

At surface: 1780 FNL & 330 FWL

OCT 28 2008
OCD-ARTESIA

11. Sec , T , R., M., on Block and Survey or Area: 30-16S-29E

At top prod. interval reported below: 1780 FNL & 330 FWL

12. County or Parish: Eddy 13. State: NM

At total depth: 2006 FNL & 831 FEL

14 Date Spudded: 03.13.08

15. Date T.D. Reached: 05.02.08

16. Date Completed: 07.14.08 [ ] D & A [X] Ready to Prod.

17. Elevations (DF, RKB, RT, GL)*: 3701' GR

18. Total Depth. MD 11021' TVD 7084'

19. Plug Back TD: MD 10411' (at pump-out-plug) TVD 7086'

20. Depth Bridge Plug Set: MD 6766' (whipstock plug) TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)

Porosity, Resistivity

22. Was well cored? [X] No [ ] Yes (Submit analysis)
Was DST run? [X] No [ ] Yes (Submit report)
Directional Survey [ ] No [X] Yes (Submit copy)

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 Sks & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
17½"	13⅜" H40	48	0'	325'		300 sx PP		0'	
12¼"	9⅝ J55	40	0'	2527'		980 sx IntC,PP		0'	
8¾"	7" P110	26	0'	7340'		950 sx IntH,PBSH		0'	
6⅛"	4½" P110	11.6	6481'	10411'		PEAK Liner - no cement			

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2⅞"	6377'							

25. Producing Intervals

	Formation	Top	Bottom
A)	Abo	5825'	7090'
B)			
C)			
D)			

26. Perforation Record

Perforated Interval	Size	No. Holes	Perf Status
No Perfs...PEAK Liner w/ Iso-ports and Iso-packers...see frac job on attachment			
Producing Interval: 6750' to 11021'			

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

Depth Interval	Amount and Type of Material
	Please see attachment...5-stage Frac Job

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 BTU	Production Method
06.06.08	07.18.08	24	→	19	21	390	40.1	1.522	Pumping
Choke Size	**Tbg. Press Flwg / SI**	**Csg. Press.**	**24 Hr. Rate**	**Oil BBL**	**Gas MCF**	**Water BBL**	**Gas/Oil Ratio**	**Well Status**	
open	120 / 40	50	→				1105	Producing	

28 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. / SI**	**Csg. Press.**	**24 Hr. Rate**	**Oil BBL**	**Gas MCF**	**Water BBL**	**Gas/Oil Ratio**	**Well Status**	
			→						

ACCEPTED FOR RECORD
OCT 22 2008
JERRY FANT
PETROLEUM GEOLOGIST

* *(See instructions and spaces for additional data on page 2)*

Accepted for record - NMOCD

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 Flwg. 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.)*

Sold

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

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
				Glorieta	3704'
				Paddock	3759'
				Blinebry	4566'
				Tubb	5086'
				Abo Shale	5825'
				L Abo	6872'
				Base Anhydrite	6965'
				Hueco Wolfcamp	7090'

32. Additional remarks (include plugging procedure):

Attempted to produce well with open-hole lateral from 06-06-08 to 06-18-08 (sold some gas). Installed PEAK lateral liner on 06-28-08, fracture-treated on 07-04-08, put to sales on 07-14-08.

Installed 2½" x 1¾" x 20' rod pump on 07-13-08.

33. Indicate which items have been attached by placing a check in the appropriate boxes:

[X] Electrical/Mechanical Logs (1 full set req'd.) [ ] Geologic Report [ ] DST Report [X] Directional Survey

[ ] Sundry Notice for plugging and cement verification [ ] Core Analysis [X] Other: PEAK Systems Drawing, Frac Job, Deviation/well path

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

Name *(please print)* Natalie Krueger Title Regulatory Analyst

Signature Natalie Krueger Date October 7, 2008

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.

Operator: Cimarex Energy Co. of Colorado
Well/Lease: Pavo Mesa 30 Federal Com No. 1 - 30-015-35918
County: Eddy, NM

State of New Mexico
Deviation Report - Key Rig 880

177'	1.00
292'	1.00
494'	1.00
1051'	1.00
1558'	1.00
2065'	1.00
2565'	1.00
3028'	1.00
3575'	2.00
4055'	1.00
4565'	1.00
5065'	1.00
5339'	1.00
5847'	1.00
6358'	2.00
6801'	1.00
7340'	1.00

State of: Texas
County of: Midland

The foregoing instrument was acknowledged before me on October 8, 2008, by Don Weiershausen, on behalf of Key Energy Services.

Ramona M. Porras
Notary Public For:
My Commission Expires: July 21, 2012

RAMONA M. PORRAS
MY COMMISSION EXPIRES
July 21, 2012

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

OIL CONSERVATION DIVISION

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

Form C-102
Revised October 12, 2005

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-35918	97575	Pavo Mesa; Abo

Property Code	Property Name	Well Number
	PAVO MESA "30" FEDERAL COM	1

OGRID No.	Operator Name	Elevation
162683	CIMAREX ENERGY CO. OF COLORADO	3701'

Surface Location

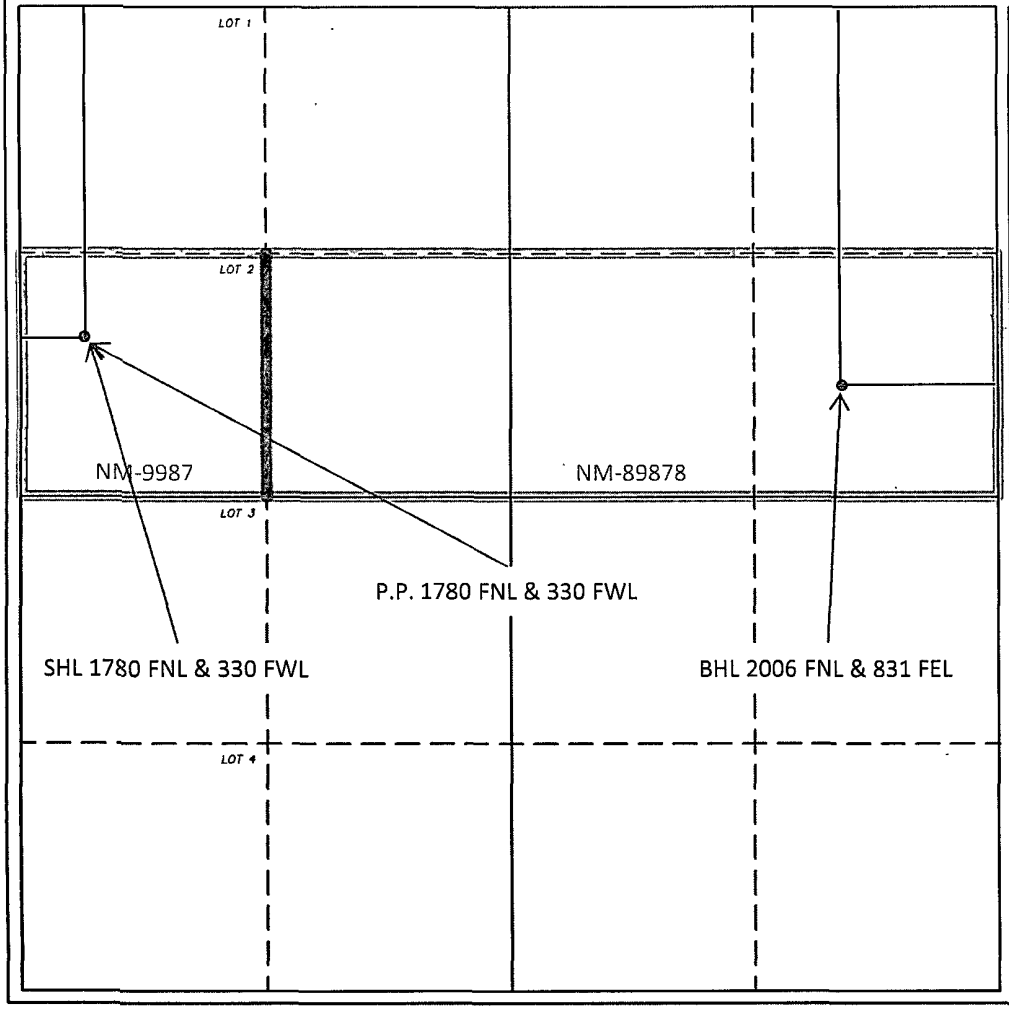
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
LOT 2	30	16 S	29 E		1780	NORTH	330	WEST	EDDY

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
H	30	16 S	29 E		2006	NORTH	831	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
145.62		P	

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.

Natalie Krueger 10-07-08
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 supervison, and that the same is true and correct to the best of my belief.

SEPTEMBER 04, 2007
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL LAND SURVEYOR

W.O. Number: 23209

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

Acid, Fracture, Treatment, Cement Squeeze, etc. Attachment

Pavo Mesa 30 Federal Com No. 1

30-16S-29E

Eddy County, NM

Depth Interval	Amount and Type of Material Used
Stage 1 10116'-11021'	Pump 119 bbl of 15% HCl NeFe acid, 332 bbl slick water, SD, 24 bbl slick water, 119 bbl Deep spot 15% HCl acid, 595 bbl slick water, 119 bbl Lightning 2000 x-linker pad, 0.5 to 1 ppg 40/70# white sand in lightning 2000 gel, 714 bbl slick water & flush with 20# linear gel. Pump down 7" & 4½" liner 37 BPM. Drop 3" ball. Pump 95 bbl of 15% HCl NeFe acid & 226 bbl slick water, seat ball, open port at 9626.' 10000# 40/70 white sand pumped.
Stage 2 9197'-10116'	Cont pumping 83 bbl slick water, SD, 24 bbl slick water, 119 bbl Deep spot 15% HCl acid, 476 bbl slick water, 119 bbl Lightning 2000 x-linker pad, 0.5 to 1 ppg 40/70# white sand in lightning 2000 gel, 476 bbl slick water & flush with 20# linear gel. Drop 3¼" ball. Pump 71 bbl 15% HCl NeFe acid, 200 bbl slick water, seat ball, open port at 8040.' Avg rate 40.5 BPM. 10000# 40/70 white sand pumped.
Stage 3 7866'-8513'	Cont pumping 85 bbl slick water, SD, 24 bbl slick water, 95 bbl Deep spot 15% HCl acid, 357 bbl slick water, 60 bbl Lightning 2000 x-linker pad, 0.5 to 1 ppg 40/70# white sand in lightning 2000 gel, 357 bbl slick water & flush with 20# linear gel. Drop 3½" ball. Pump 71 bbl 15% HCl NeFe acid, 180 bbl slick water, seat ball, open port at 7643.' Avg rate 38 BPM. 7500# 40/70# white sand pumped.
Stage 4 7409'-7866'	Cont pumping 82 bbl slick water, SD, 24 bbl slick water, 60 bbl Deep spot 15% HCl acid, 179 bbl slick water, 60 bbl Lightning 2000 x-linker pad, 0.5 to 1 ppg 40/70# white sand in lightning 2000 gel, 179 bbl slick water & flush with 20# linear gel. Drop gel. Drop 3¾" ball. Pump 24 bbl 15% HCl NeFe acid, 170 bbl slick water, seat ball, open port at 7143.' Avg rate 38 BPM. 7500# 40/70# white sand pumped.
Stage 5 6750'-7409'	Cont pumping 80 bbl slick water, SD, 24 bbl slick water, 24 bbl Deep spot 15% HCl acid,119 bbl slick water, 60 bbl Lightning 2000 x-linker pad, 1 ppg 40/70# white sand in lightning 2000 gel & flush with 258 bbl 20# linear gel. Avg rate 38.5 BPM. 2500# 40/70# white sand pumped.

Actual Wellpath Report

No.1H AWP LT01

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Cimarex Energy Co.**	Slot	**No. 1H SHL**
Area	**Eddy County, NM**	Well	**No. 1H**
Field	**(Pavo) SECTION 30, T16S R29E**	Wellbore	**No.1H AWB LT01**
Facility	**Pavo Mesa 30 Federal No. 1H**	Sidetrack from	**No. 1H AWB OH** at **6739.00 MD**

REPORT SETUP INFORMATION			
Projection System	**NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet**	Software System	**WellArchitect® 2.0**
North Reference	**Grid**	User	**Victor Hernandez**
Scale	**0.999914**	Report Generated	**5/2/2008** at **4:47:16 PM**
Convergence at slot	**0.12° East**	Database/Source file	**WA_Midland/No.1H_AWB_LT01.xml**

WELLPATH LOCATION	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	**East[ft]**	**Easting[USft]**	**Northing[USft]**	**Latitude**	**Longitude**
Slot Location	**0.00**	**0.00**	606754.94	689416.00	32°53'42.147"N	104°07'12.738"W
Facility Reference Pt			**606754.94**	**689416.00**	32°53'42.147"N	104°07'12.738"W
Field Reference Pt			**606754.94**	**689416.00**	32°53'42.147"N	104°07'12.738"W

WELLPATH DATUM			
Calculation method	**Minimum curvature**	Rig on No. 1H SHL (RT) to Facility Vertical Datum	**17.00ft**
Horizontal Reference Pt	**Facility Center**	Rig on No. 1H SHL (RT) to Ground Elev.	**3718.00ft**
Vertical Reference Pt	**Rig on No. 1H SHL (RT)**	Facility Vertical Datum to Mud Line (Facility)	**0.00ft**
MD Reference Pt	**Rig on No. 1H SHL (RT)**	Section Origin	**N 0.00, E 0.00 ft**
Field Vertical Reference	**Ground Elev.**	Section Azimuth	**92.69°**

Actual Wellpath Report

No.1H AWP LT01

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Cimarex Energy Co.**	Slot	**No. 1H SHL**
Area	**Eddy County, NM**	Well	**No. 1H**
Field	**(Pavo) SECTION 30, T16S R29E**	Wellbore	**No.1H AWB LT01**
Facility	**Pavo Mesa 30 Federal No. 1H**	Sidetrack from	**No. 1H AWB OH at 6739.00 MD**

WELLPATH DATA (189 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Comments
0.00	0.000	95.036	0.00	0.00	0.00	0.00	606754.94	689416.00	32°53'42.147"N	104°07'12.738"W	0.00	0.000	0.00	
62.80	0.648	95.036	62.80	0.35	-0.03	0.35	606755.29	689415.97	32°53'42.147"N	104°07'12.734"W	0.36	95.036	1.03	
190.00	0.737	46.838	189.99	1.64	0.47	1.67	606756.61	689416.47	32°53'42.152"N	104°07'12.719"W	1.73	74.409	0.45	
317.30	1.056	42.662	317.27	2.97	1.89	3.06	606758.00	689417.89	32°53'42.166"N	104°07'12.702"W	3.59	58.320	0.26	
444.50	1.284	46.242	444.45	4.70	3.74	4.88	606759.82	689419.74	32°53'42.184"N	104°07'12.681"W	6.15	52.582	0.19	
571.80	1.284	46.137	571.72	6.67	5.71	6.94	606761.88	689421.71	32°53'42.203"N	104°07'12.657"W	8.99	50.557	0.00	
699.10	1.483	35.336	698.98	8.54	8.04	8.92	606763.86	689424.04	32°53'42.226"N	104°07'12.633"W	12.01	47.969	0.26	
826.30	1.041	26.817	826.15	9.90	10.42	10.40	606765.33	689426.41	32°53'42.250"N	104°07'12.616"W	14.72	44.943	0.38	
953.60	0.885	3.566	953.43	10.38	12.43	10.98	606765.92	689428.43	32°53'42.270"N	104°07'12.609"W	16.58	41.453	0.33	
1079.40	0.770	0.356	1079.22	10.36	14.24	11.04	606765.98	689430.24	32°53'42.288"N	104°07'12.608"W	18.02	37.786	0.10	
1205.10	0.647	22.797	1204.91	10.57	15.74	11.32	606766.26	689431.74	32°53'42.303"N	104°07'12.605"W	19.39	35.726	0.24	
1330.90	0.571	23.720	1330.70	11.04	16.97	11.85	606766.79	689432.97	32°53'42.315"N	104°07'12.599"W	20.70	34.925	0.06	
1456.70	0.517	22.829	1456.50	11.46	18.07	12.32	606767.26	689434.07	32°53'42.326"N	104°07'12.593"W	21.87	34.294	0.04	
1582.50	0.385	352.574	1582.29	11.58	19.01	12.49	606767.43	689435.01	32°53'42.335"N	104°07'12.591"W	22.75	33.302	0.21	
1708.30	0.381	339.900	1708.09	11.35	19.82	12.29	606767.23	689435.82	32°53'42.343"N	104°07'12.594"W	23.32	31.801	0.07	
1834.00	0.384	303.825	1833.79	10.83	20.45	11.80	606766.74	689436.45	32°53'42.349"N	104°07'12.599"W	23.61	29.982	0.19	
1959.80	0.330	268.045	1959.58	10.10	20.67	11.09	606766.02	689436.67	32°53'42.351"N	104°07'12.608"W	23.46	28.204	0.18	
2085.60	0.374	276.229	2085.38	9.33	20.70	10.32	606765.25	689436.70	32°53'42.352"N	104°07'12.617"W	23.13	26.484	0.05	
2211.40	0.365	259.810	2211.18	8.53	20.68	9.51	606764.45	689436.68	32°53'42.351"N	104°07'12.626"W	22.76	24.704	0.08	
2337.20	0.307	273.779	2336.98	7.81	20.63	8.78	606763.72	689436.63	32°53'42.351"N	104°07'12.635"W	22.42	23.062	0.08	
2462.90	0.309	270.822	2462.67	7.13	20.66	8.11	606763.05	689436.65	32°53'42.351"N	104°07'12.643"W	22.19	21.433	0.01	
2588.70	0.355	226.670	2588.47	6.52	20.39	7.49	606762.43	689436.39	32°53'42.349"N	104°07'12.650"W	21.72	20.159	0.20	
2714.50	0.577	231.447	2714.27	5.78	19.73	6.71	606761.65	689435.73	32°53'42.342"N	104°07'12.659"W	20.84	18.776	0.18	
2840.30	0.690	250.699	2840.06	4.60	19.09	5.50	606760.44	689435.08	32°53'42.336"N	104°07'12.673"W	19.86	16.069	0.19	
2966.10	0.714	243.267	2965.85	3.21	18.48	4.08	606759.02	689434.48	32°53'42.330"N	104°07'12.690"W	18.93	12.457	0.07	
3091.80	0.776	253.408	3091.54	1.73	17.89	2.57	606757.51	689433.89	32°53'42.324"N	104°07'12.708"W	18.07	8.170	0.12	
3217.60	0.687	262.518	3217.33	0.18	17.55	1.00	606755.94	689433.55	32°53'42.321"N	104°07'12.726"W	17.58	3.275	0.12	
3343.40	0.611	264.971	3343.12	-1.23	17.39	-0.41	606754.53	689433.39	32°53'42.319"N	104°07'12.743"W	17.39	358.642	0.06	
3469.20	0.449	262.071	3468.92	-2.38	17.26	-1.57	606753.37	689433.26	32°53'42.318"N	104°07'12.756"W	17.33	354.808	0.13	
3595.00	0.507	283.749	3594.71	-3.41	17.33	-2.60	606752.34	689433.33	32°53'42.319"N	104°07'12.768"W	17.52	351.472	0.15	
3720.70	0.319	289.951	3720.41	-4.29	17.58	-3.47	606751.47	689433.58	32°53'42.321"N	104°07'12.779"W	17.92	348.840	0.15	
3846.50	0.254	286.421	3846.21	-4.89	17.78	-4.06	606750.88	689433.78	32°53'42.323"N	104°07'12.786"W	18.24	347.120	0.05	
3972.30	0.275	280.560	3972.01	-5.46	17.91	-4.63	606750.31	689433.91	32°53'42.324"N	104°07'12.792"W	18.50	345.508	0.03	
4098.10	0.190	281.503	4097.81	-5.97	18.01	-5.13	606749.81	689434.01	32°53'42.325"N	104°07'12.798"W	18.73	344.097	0.07	
4223.90	0.170	252.664	4223.61	-6.35	17.99	-5.51	606749.43	689433.99	32°53'42.325"N	104°07'12.803"W	18.82	342.966	0.07	
4349.60	0.173	228.340	4349.30	-6.66	17.81	-5.83	606749.11	689433.81	32°53'42.323"N	104°07'12.806"W	18.74	341.872	0.06	
4475.40	0.230	274.872	4475.10	-7.05	17.71	-6.23	606748.72	689433.71	32°53'42.322"N	104°07'12.811"W	18.77	340.633	0.13	
4601.20	0.369	294.168	4600.90	-7.68	17.90	-6.85	606748.09	689433.89	32°53'42.324"N	104°07'12.818"W	19.16	339.066	0.14	
4727.00	0.425	293.435	4726.70	-8.49	18.25	-7.64	606747.30	689434.25	32°53'42.328"N	104°07'12.828"W	19.78	337.272	0.04	
4852.80	0.493	294.044	4852.50	-9.43	18.65	-8.57	606746.37	689434.65	32°53'42.332"N	104°07'12.838"W	20.53	335.334	0.05	
4978.50	0.433	285.519	4978.19	-10.40	19.00	-9.52	606745.42	689435.00	32°53'42.335"N	104°07'12.849"W	21.25	333.394	0.07	
5104.30	0.503	281.478	5103.99	-11.41	19.24	-10.52	606744.42	689435.24	32°53'42.338"N	104°07'12.861"W	21.93	331.337	0.06	
5230.10	0.589	287.880	5229.78	-12.58	19.55	-11.67	606743.27	689435.55	32°53'42.341"N	104°07'12.875"W	22.77	329.154	0.08	
5355.90	0.588	291.697	5355.57	-13.81	19.98	-12.89	606742.05	689435.98	32°53'42.345"N	104°07'12.889"W	23.78	327.179	0.03	
5481.70	0.482	294.116	5481.37	-14.92	20.44	-13.97	606740.97	689436.44	32°53'42.350"N	104°07'12.902"W	24.76	325.644	0.09	

Actual Wellpath Report

No.1H AWP LT01

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Cimarex Energy Co.**	Slot	**No. 1H SHL**
Area	**Eddy County, NM**	Well	**No. 1H**
Field	**(Pavo) SECTION 30, T16S R29E**	Wellbore	**No.1H AWB LT01**
Facility	**Pavo Mesa 30 Federal No. 1H**	Sidetrack from	**No. 1H AWB OH at 6739.00 MD**

WELLPATH DATA (189 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Comments
5607.40	0.467	301.630	5607.06	-15.86	20.92	-14.89	606740.05	689436.92	32°53'42.354"N	104°07'12.912"W	25.68	324.562	0.05	
5733.20	0.248	292.526	5732.86	-16.56	21.30	-15.58	606739.36	689437.30	32°53'42.358"N	104°07'12.921"W	26.39	323.814	0.18	
5859.00	0.086	355.620	5858.66	-16.83	21.50	-15.84	606739.10	689437.49	32°53'42.360"N	104°07'12.924"W	26.70	323.617	0.18	
5984.80	0.103	345.211	5984.46	-16.87	21.70	-15.87	606739.07	689437.70	32°53'42.362"N	104°07'12.924"W	26.89	323.812	0.02	
6110.60	0.222	316.445	6110.26	-17.08	21.99	-16.07	606738.87	689437.98	32°53'42.365"N	104°07'12.926"W	27.23	323.833	0.11	
6236.30	0.308	335.210	6235.96	-17.42	22.47	-16.38	606738.56	689438.47	32°53'42.370"N	104°07'12.930"W	27.81	323.906	0.10	
6362.10	0.384	15.339	6361.76	-17.48	23.18	-16.41	606738.53	689439.18	32°53'42.377"N	104°07'12.930"W	28.40	324.705	0.20	
6487.90	0.586	28.815	6487.55	-17.11	24.15	-15.99	606738.95	689440.15	32°53'42.386"N	104°07'12.925"W	28.97	326.493	0.18	
6613.70	0.689	25.723	6613.35	-16.53	25.40	-15.35	606739.59	689441.39	32°53'42.399"N	104°07'12.918"W	29.68	328.847	0.09	
6739.46	0.691	15.807	6739.10	-16.06	26.81	-14.82	606740.12	689442.80	32°53'42.413"N	104°07'12.911"W	30.63	331.069	0.09	
6780.00	7.100	87.500	6779.53	-13.50	27.15	-12.24	606742.70	689443.15	32°53'42.416"N	104°07'12.881"W	29.79	335.726	17.05	
6812.00	16.900	88.400	6810.79	-6.88	27.37	-5.60	606749.34	689443.37	32°53'42.418"N	104°07'12.803"W	27.94	348.429	30.63	
6844.00	26.100	85.400	6840.53	4.76	28.06	6.09	606761.03	689444.06	32°53'42.425"N	104°07'12.666"W	28.72	12.239	28.95	
6875.00	35.200	83.600	6867.18	20.38	29.61	21.80	606776.74	689445.61	32°53'42.440"N	104°07'12.482"W	36.77	36.358	29.50	
6907.00	44.400	84.900	6891.73	40.63	31.64	42.16	606797.09	689447.64	32°53'42.459"N	104°07'12.243"W	52.71	53.112	28.87	
6936.00	53.600	86.500	6910.74	62.33	33.26	63.96	606818.89	689449.25	32°53'42.475"N	104°07'11.987"W	72.09	62.527	31.99	
6967.00	63.400	85.500	6926.92	88.55	35.11	90.29	606845.23	689451.11	32°53'42.493"N	104°07'11.679"W	96.88	68.752	31.73	
6999.00	67.600	86.100	6940.19	117.45	37.24	119.33	606874.26	689453.24	32°53'42.513"N	104°07'11.338"W	125.00	72.668	13.24	
7031.00	68.800	85.200	6952.07	146.94	39.49	148.95	606903.88	689455.49	32°53'42.535"N	104°07'10.991"W	154.10	75.150	4.57	
7063.00	70.800	85.200	6963.12	176.71	42.01	178.88	606933.80	689458.00	32°53'42.559"N	104°07'10.640"W	183.74	76.784	6.25	
7094.00	74.800	86.600	6972.28	206.11	44.12	208.41	606963.33	689460.12	32°53'42.579"N	104°07'10.293"W	213.03	78.047	13.60	
7126.00	80.700	88.000	6979.07	237.23	45.59	239.63	606994.55	689461.58	32°53'42.593"N	104°07'09.927"W	243.93	79.229	18.93	
7158.00	83.000	89.400	6983.61	268.83	46.31	271.30	607026.21	689462.30	32°53'42.600"N	104°07'09.556"W	275.22	80.314	8.39	
7190.00	83.000	91.900	6987.51	300.56	45.94	303.05	607057.97	689461.94	32°53'42.596"N	104°07'09.183"W	306.52	81.379	7.75	
7221.00	83.400	92.900	6991.18	331.35	44.66	333.81	607088.72	689460.65	32°53'42.582"N	104°07'08.822"W	336.78	82.380	3.45	
7253.00	84.500	94.700	6994.55	363.16	42.55	365.56	607120.47	689458.54	32°53'42.561"N	104°07'08.450"W	368.03	83.361	6.57	
7284.00	84.700	95.000	6997.47	394.00	39.94	396.31	607151.21	689455.93	32°53'42.534"N	104°07'08.090"W	398.32	84.246	1.16	
7316.00	84.300	94.700	7000.54	425.83	37.24	428.05	607182.95	689453.24	32°53'42.507"N	104°07'07.717"W	429.67	85.027	1.56	
7348.00	83.900	95.000	7003.82	457.64	34.55	459.76	607214.66	689450.55	32°53'42.480"N	104°07'07.346"W	461.06	85.702	1.56	
7380.00	84.500	94.700	7007.06	489.45	31.86	491.49	607246.38	689447.86	32°53'42.452"N	104°07'06.974"W	492.52	86.291	2.09	
7412.00	84.200	94.700	7010.21	521.28	29.25	523.22	607278.12	689445.25	32°53'42.426"N	104°07'06.601"W	524.04	86.800	0.94	
7443.00	83.500	95.000	7013.53	552.08	26.65	553.93	607308.83	689442.64	32°53'42.400"N	104°07'06.241"W	554.58	87.246	2.45	
7475.00	84.900	95.300	7016.76	583.88	23.79	585.64	607340.53	689439.79	32°53'42.371"N	104°07'05.870"W	586.12	87.674	4.47	
7507.00	85.900	95.400	7019.33	615.74	20.81	617.40	607372.28	689436.81	32°53'42.341"N	104°07'05.497"W	617.75	88.069	3.14	
7539.00	85.700	95.400	7021.67	647.62	17.81	649.17	607404.05	689433.81	32°53'42.310"N	104°07'05.125"W	649.42	88.428	0.62	
7571.00	86.600	95.700	7023.82	679.51	14.72	680.95	607435.83	689430.72	32°53'42.279"N	104°07'04.752"W	681.11	88.761	2.96	
7603.00	86.400	95.700	7025.78	711.41	11.55	712.73	607467.61	689427.55	32°53'42.247"N	104°07'04.379"W	712.83	89.072	0.62	
7635.00	86.300	96.100	7027.81	743.29	8.27	744.50	607499.37	689424.27	32°53'42.214"N	104°07'04.007"W	744.54	89.364	1.29	
7666.00	85.900	95.700	7029.92	774.17	5.09	775.26	607530.13	689421.09	32°53'42.182"N	104°07'03.646"W	775.28	89.624	1.82	
7698.00	85.400	96.100	7032.35	806.03	1.81	807.00	607561.87	689417.81	32°53'42.149"N	104°07'03.274"W	807.00	89.872	2.00	
7730.00	85.000	97.200	7035.03	837.84	-1.88	838.67	607593.54	689414.12	32°53'42.112"N	104°07'02.903"W	838.68	90.129	3.65	
7762.00	86.200	96.100	7037.48	869.67	-5.58	870.36	607625.23	689410.42	32°53'42.074"N	104°07'02.531"W	870.38	90.367	5.08	
7793.00	87.300	95.700	7039.24	900.57	-8.76	901.15	607656.01	689407.24	32°53'42.042"N	104°07'02.170"W	901.19	90.557	3.77	
7825.00	88.500	95.700	7040.41	932.50	-11.94	932.97	607687.83	689404.07	32°53'42.010"N	104°07'01.797"W	933.04	90.733	3.75	
7857.00	89.400	95.400	7041.00	964.46	-15.03	964.81	607719.67	689400.97	32°53'41.979"N	104°07'01.424"W	964.93	90.892	2.96	

Actual Wellpath Report

No.1H AWP LT01

CIMAREX

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Cimarex Energy Co.**	Slot	**No. 1H SHL**
Area	**Eddy County, NM**	Well	**No. 1H**
Field	**(Pavo) SECTION 30, T16S R29E**	Wellbore	**No.1H AWB LT01**
Facility	**Pavo Mesa 30 Federal No. 1H**	Sidetrack from	**No. 1H AWB OH at 6739.00 MD**

WELLPATH DATA (189 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Comments
7889.00	90.600	94.600	7041.00	996.43	-17.82	996.69	607751.54	689398.18	32°53'41.951"N	104°07'01.050"W	996.85	91.024	4.51	
7920.00	91.200	94.300	7040.51	1027.41	-20.22	1027.59	607782.44	689395.78	32°53'41.926"N	104°07'00.688"W	1027.79	91.127	2.16	
7952.00	90.900	94.300	7039.92	1059.39	-22.62	1059.50	607814.34	689393.38	32°53'41.902"N	104°07'00.313"W	1059.74	91.223	0.94	
7984.00	90.300	94.300	7039.59	1091.38	-25.02	1091.41	607846.25	689390.98	32°53'41.877"N	104°06'59.939"W	1091.69	91.313	1.87	
8016.00	90.700	94.700	7039.31	1123.36	-27.53	1123.31	607878.15	689388.47	32°53'41.852"N	104°06'59.565"W	1123.64	91.404	1.77	
8047.00	90.200	94.700	7039.07	1154.34	-30.07	1154.20	607909.04	689385.93	32°53'41.826"N	104°06'59.203"W	1154.59	91.492	1.61	
8079.00	90.100	95.000	7038.98	1186.32	-32.78	1186.09	607940.92	689383.23	32°53'41.799"N	104°06'58.829"W	1186.54	91.583	0.99	
8111.00	89.700	95.000	7039.04	1218.29	-35.57	1217.96	607972.80	689380.44	32°53'41.771"N	104°06'58.455"W	1218.48	91.673	1.25	
8143.00	90.400	94.700	7039.01	1250.27	-38.27	1249.85	608004.68	689377.73	32°53'41.743"N	104°06'58.082"W	1250.43	91.754	2.38	
8175.00	90.400	94.700	7038.79	1282.25	-40.89	1281.74	608036.57	689375.11	32°53'41.717"N	104°06'57.708"W	1282.39	91.827	0.00	
8206.00	90.300	94.700	7038.60	1313.23	-43.43	1312.64	608067.46	689372.57	32°53'41.691"N	104°06'57.345"W	1313.35	91.895	0.32	
8238.00	89.700	94.700	7038.60	1345.21	-46.06	1344.53	608099.35	689369.95	32°53'41.664"N	104°06'56.971"W	1345.32	91.962	1.87	
8270.00	90.400	93.600	7038.57	1377.20	-48.37	1376.44	608131.26	689367.63	32°53'41.641"N	104°06'56.597"W	1377.29	92.013	4.07	
8303.00	89.600	93.300	7038.57	1410.19	-50.36	1409.38	608164.20	689365.65	32°53'41.620"N	104°06'56.211"W	1410.28	92.046	2.59	
8334.00	89.900	92.600	7038.71	1441.19	-51.95	1440.34	608195.15	689364.05	32°53'41.604"N	104°06'55.848"W	1441.28	92.066	2.46	
8366.00	89.700	92.600	7038.82	1473.19	-53.40	1472.31	608227.12	689362.60	32°53'41.589"N	104°06'55.473"W	1473.28	92.077	0.62	
8398.00	90.700	92.200	7038.71	1505.19	-54.74	1504.28	608259.09	689361.26	32°53'41.575"N	104°06'55.098"W	1505.28	92.084	3.37	
8430.00	92.100	92.200	7037.92	1537.18	-55.97	1536.25	608291.05	689360.03	32°53'41.562"N	104°06'54.723"W	1537.26	92.087	4.37	
8461.00	91.700	92.200	7036.90	1568.16	-57.16	1567.21	608322.01	689358.84	32°53'41.550"N	104°06'54.360"W	1568.25	92.089	1.29	
8493.00	91.800	91.900	7035.92	1600.14	-58.31	1599.17	608353.97	689357.70	32°53'41.538"N	104°06'53.985"W	1600.23	92.088	0.99	
8525.00	91.800	91.900	7034.91	1632.13	-59.37	1631.14	608385.93	689356.64	32°53'41.527"N	104°06'53.610"W	1632.22	92.084	0.00	
8557.00	91.700	91.900	7033.94	1664.11	-60.43	1663.10	608417.90	689355.58	32°53'41.515"N	104°06'53.236"W	1664.20	92.081	0.31	
8589.00	91.400	91.900	7033.07	1696.09	-61.49	1695.07	608449.87	689354.52	32°53'41.504"N	104°06'52.861"W	1696.19	92.077	0.94	
8621.00	91.100	91.500	7032.37	1728.08	-62.44	1727.05	608481.84	689353.57	32°53'41.494"N	104°06'52.486"W	1728.18	92.070	1.56	
8652.00	91.100	91.500	7031.78	1759.07	-63.25	1758.04	608512.82	689352.76	32°53'41.486"N	104°06'52.122"W	1759.17	92.060	0.00	
8684.00	92.100	91.500	7030.88	1791.05	-64.09	1790.01	608544.80	689351.92	32°53'41.477"N	104°06'51.747"W	1791.16	92.050	3.12	
8716.00	91.900	93.300	7029.77	1823.03	-65.42	1821.96	608576.74	689350.58	32°53'41.463"N	104°06'51.373"W	1823.14	92.057	5.66	
8748.00	91.800	92.900	7028.73	1855.01	-67.15	1853.90	608608.68	689348.85	32°53'41.445"N	104°06'50.998"W	1855.12	92.075	1.29	
8780.00	91.500	91.500	7027.81	1886.99	-68.38	1885.86	608640.64	689347.62	32°53'41.432"N	104°06'50.623"W	1887.10	92.077	4.47	
8811.00	89.900	91.900	7027.43	1917.99	-69.30	1916.85	608671.62	689346.70	32°53'41.422"N	104°06'50.260"W	1918.10	92.071	5.32	
8843.00	88.300	93.200	7027.94	1949.98	-70.73	1948.81	608703.58	689345.28	32°53'41.408"N	104°06'49.885"W	1950.09	92.078	6.44	
8875.00	87.500	94.000	7029.11	1981.95	-72.73	1980.72	608735.49	689343.27	32°53'41.387"N	104°06'49.511"W	1982.06	92.103	3.53	
8907.00	87.200	93.600	7030.59	2013.91	-74.85	2012.62	608767.38	689341.16	32°53'41.366"N	104°06'49.137"W	2014.01	92.130	1.56	
8938.00	86.800	94.000	7032.21	2044.87	-76.90	2043.51	608798.27	689339.10	32°53'41.345"N	104°06'48.775"W	2044.95	92.155	1.82	
8970.00	86.600	94.000	7034.05	2076.80	-79.13	2075.38	608830.13	689336.88	32°53'41.322"N	104°06'48.401"W	2076.89	92.184	0.62	
9002.00	86.200	93.600	7036.06	2108.74	-81.25	2107.24	608862.00	689334.76	32°53'41.300"N	104°06'48.027"W	2108.81	92.208	1.77	
9034.00	85.800	94.000	7038.29	2140.65	-83.36	2139.10	608893.85	689332.64	32°53'41.279"N	104°06'47.654"W	2140.72	92.232	1.77	
9065.00	86.400	94.300	7040.40	2171.57	-85.60	2169.94	608924.69	689330.41	32°53'41.256"N	104°06'47.292"W	2171.63	92.259	2.16	
9095.00	86.100	95.700	7042.37	2201.48	-88.21	2199.76	608954.51	689327.80	32°53'41.230"N	104°06'46.943"W	2201.53	92.296	4.76	
9127.00	86.100	95.700	7044.54	2233.36	-91.38	2231.53	608986.28	689324.63	32°53'41.198"N	104°06'46.570"W	2233.40	92.345	0.00	
9159.00	86.200	96.000	7046.69	2265.24	-94.64	2263.29	609018.03	689321.37	32°53'41.165"N	104°06'46.198"W	2265.27	92.394	0.99	
9191.00	87.400	95.700	7048.48	2297.14	-97.89	2295.08	609049.81	689318.12	32°53'41.132"N	104°06'45.825"W	2297.16	92.442	3.87	
9223.00	88.800	95.700	7049.54	2329.08	-101.07	2326.90	609081.63	689314.94	32°53'41.100"N	104°06'45.452"W	2329.09	92.487	4.38	
9255.00	90.400	95.700	7049.76	2361.03	-104.25	2358.74	609113.47	689311.76	32°53'41.068"N	104°06'45.079"W	2361.04	92.531	5.00	
9287.00	90.400	96.100	7049.54	2392.98	-107.54	2390.57	609145.30	689308.47	32°53'41.034"N	104°06'44.705"W	2392.99	92.576	1.25	

Actual Wellpath Report

No.1H AWP LT01

CIMAREX

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Cimarex Energy Co.**	Slot	**No. 1H SHL**
Area	**Eddy County, NM**	Well	**No. 1H**
Field	**(Pavo) SECTION 30, T16S R29E**	Wellbore	**No.1H AWB LT01**
Facility	**Pavo Mesa 30 Federal No. 1H**	Sidetrack from	**No. 1H AWB OH at 6739.00 MD**

WELLPATH DATA (189 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Comments
9319.00	89.600	95.400	7049.54	2424.94	-110.74	2422.41	609177.13	689305.27	32°53'41.002"N	104°06'44.332"W	2424.94	92.617	3.32	
9351.00	88.900	95.400	7049.96	2456.90	-113.75	2454.26	609208.99	689302.26	32°53'40.972"N	104°06'43.958"W	2456.90	92.654	2.19	
9382.00	88.300	95.000	7050.71	2487.86	-116.56	2485.13	609239.85	689299.45	32°53'40.943"N	104°06'43.597"W	2487.86	92.685	2.33	
9414.00	87.000	94.000	7052.03	2519.81	-119.07	2517.00	609271.72	689296.94	32°53'40.918"N	104°06'43.223"W	2519.81	92.708	5.12	
9446.00	86.700	94.600	7053.78	2551.75	-121.47	2548.86	609303.58	689294.54	32°53'40.893"N	104°06'42.849"W	2551.75	92.728	2.09	
9478.00	86.700	94.700	7055.63	2583.68	-124.06	2580.70	609335.42	689291.95	32°53'40.867"N	104°06'42.476"W	2583.68	92.752	0.31	
9509.00	85.900	93.600	7057.63	2614.61	-126.29	2611.56	609366.27	689289.72	32°53'40.844"N	104°06'42.114"W	2614.61	92.769	4.38	
9541.00	84.900	92.900	7060.19	2646.50	-128.10	2643.40	609398.11	689287.91	32°53'40.826"N	104°06'41.741"W	2646.50	92.774	3.81	
9573.00	84.600	92.900	7063.12	2678.37	-129.72	2675.23	609429.93	689286.30	32°53'40.809"N	104°06'41.368"W	2678.37	92.776	0.94	
9605.00	86.000	93.300	7065.74	2710.26	-131.44	2707.07	609461.77	689284.57	32°53'40.791"N	104°06'40.994"W	2710.26	92.780	4.55	
9636.00	86.000	93.300	7067.91	2741.18	-133.22	2737.94	609492.64	689282.79	32°53'40.773"N	104°06'40.632"W	2741.18	92.786	0.00	
9668.00	85.800	93.600	7070.19	2773.09	-135.14	2769.80	609524.50	689280.87	32°53'40.753"N	104°06'40.258"W	2773.10	92.793	1.12	
9700.00	85.700	93.600	7072.57	2805.00	-137.15	2801.65	609556.35	689278.87	32°53'40.733"N	104°06'39.885"W	2805.01	92.802	0.31	
9732.00	85.200	94.000	7075.10	2836.90	-139.26	2833.48	609588.17	689276.75	32°53'40.711"N	104°06'39.512"W	2836.90	92.814	2.00	
9764.00	85.500	93.600	7077.70	2868.78	-141.37	2865.31	609619.99	689274.64	32°53'40.690"N	104°06'39.139"W	2868.79	92.825	1.56	
9795.00	86.800	93.900	7079.78	2899.71	-143.40	2896.17	609650.85	689272.62	32°53'40.669"N	104°06'38.777"W	2899.72	92.835	4.30	
9827.00	88.100	93.900	7081.20	2931.67	-145.57	2928.06	609682.75	689270.44	32°53'40.647"N	104°06'38.403"W	2931.68	92.846	4.06	
9859.00	88.200	94.300	7082.24	2963.64	-147.86	2959.96	609714.64	689268.16	32°53'40.624"N	104°06'38.029"W	2963.66	92.860	1.29	
9890.00	89.400	93.900	7082.89	2994.63	-150.07	2990.88	609745.55	689265.94	32°53'40.601"N	104°06'37.666"W	2994.64	92.873	4.08	
9922.00	89.200	93.900	7083.28	3026.62	-152.25	3022.80	609777.48	689263.76	32°53'40.579"N	104°06'37.292"W	3026.63	92.883	0.62	
9954.00	89.000	93.900	7083.78	3058.60	-154.43	3054.72	609809.39	689261.59	32°53'40.557"N	104°06'36.918"W	3058.62	92.894	0.62	
9986.00	89.700	93.600	7084.14	3090.60	-156.52	3086.65	609841.32	689259.50	32°53'40.535"N	104°06'36.543"W	3090.62	92.903	2.38	
10017.00	89.600	93.600	7084.33	3121.59	-158.46	3117.59	609872.26	689257.55	32°53'40.515"N	104°06'36.180"W	3121.62	92.910	0.32	
10049.00	89.100	93.600	7084.69	3153.59	-160.47	3149.53	609904.19	689255.54	32°53'40.495"N	104°06'35.806"W	3153.61	92.917	1.56	
10082.00	88.500	94.300	7085.39	3186.57	-162.75	3182.44	609937.10	689253.27	32°53'40.472"N	104°06'35.420"W	3186.60	92.927	2.79	
10113.00	89.600	94.300	7085.90	3217.55	-165.07	3213.35	609968.00	689250.94	32°53'40.448"N	104°06'35.058"W	3217.58	92.941	3.55	
10145.00	89.600	94.700	7086.12	3249.54	-167.58	3245.25	609999.90	689248.43	32°53'40.422"N	104°06'34.684"W	3249.57	92.956	1.25	
10177.00	89.400	94.700	7086.40	3281.52	-170.20	3277.14	610031.79	689245.81	32°53'40.396"N	104°06'34.310"W	3281.56	92.973	0.62	
10209.00	90.000	94.300	7086.57	3313.50	-172.71	3309.04	610063.69	689243.30	32°53'40.370"N	104°06'33.936"W	3313.54	92.988	2.25	
10241.00	89.800	94.300	7086.63	3345.49	-175.11	3340.95	610095.60	689240.90	32°53'40.346"N	104°06'33.561"W	3345.54	93.000	0.62	
10273.00	89.600	94.700	7086.79	3377.47	-177.62	3372.85	610127.49	689238.39	32°53'40.320"N	104°06'33.187"W	3377.52	93.015	1.40	
10304.00	90.300	94.300	7086.82	3408.45	-180.06	3403.75	610158.40	689235.96	32°53'40.296"N	104°06'32.825"W	3408.51	93.028	2.60	
10336.00	89.900	94.300	7086.76	3440.44	-182.45	3435.66	610190.30	689233.56	32°53'40.271"N	104°06'32.451"W	3440.51	93.040	1.25	
10368.00	90.200	93.600	7086.74	3472.43	-184.66	3467.59	610222.22	689231.36	32°53'40.249"N	104°06'32.076"W	3472.50	93.048	2.38	
10399.00	90.900	93.900	7086.44	3503.43	-186.69	3498.52	610253.15	689229.33	32°53'40.228"N	104°06'31.714"W	3503.50	93.054	2.46	
10431.00	90.800	94.300	7085.96	3535.41	-188.97	3530.43	610285.06	689227.04	32°53'40.205"N	104°06'31.340"W	3535.49	93.064	1.29	
10463.00	90.500	93.900	7085.60	3567.40	-191.26	3562.35	610316.98	689224.75	32°53'40.182"N	104°06'30.965"W	3567.48	93.073	1.56	
10495.00	90.400	94.300	7085.35	3599.39	-193.55	3594.27	610348.89	689222.47	32°53'40.158"N	104°06'30.591"W	3599.48	93.082	1.29	
10527.00	90.400	94.300	7085.13	3631.38	-195.95	3626.18	610380.80	689220.07	32°53'40.134"N	104°06'30.217"W	3631.47	93.093	0.00	
10559.00	90.100	94.300	7084.99	3663.36	-198.35	3658.09	610412.70	689217.67	32°53'40.109"N	104°06'29.843"W	3663.46	93.104	0.94	
10590.00	89.900	94.300	7084.99	3694.35	-200.67	3689.00	610443.61	689215.34	32°53'40.086"N	104°06'29.480"W	3694.45	93.114	0.65	
10622.00	89.700	94.700	7085.10	3726.34	-203.18	3720.90	610475.51	689212.83	32°53'40.060"N	104°06'29.106"W	3726.44	93.126	1.40	
10654.00	90.600	94.000	7085.01	3758.32	-205.61	3752.81	610507.42	689210.41	32°53'40.036"N	104°06'28.732"W	3758.44	93.136	3.56	
10686.00	90.400	94.000	7084.74	3790.31	-207.84	3784.73	610539.34	689208.18	32°53'40.013"N	104°06'28.358"W	3790.43	93.143	0.62	
10717.00	89.800	94.000	7084.68	3821.30	-210.01	3815.65	610570.26	689206.01	32°53'39.991"N	104°06'27.995"W	3821.43	93.150	1.94	

Actual Wellpath Report

No.1H AWP LT01

BAKER HUGHES INTEQ

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Cimarex Energy Co.**	Slot	**No. 1H SHL**
Area	**Eddy County, NM**	Well	**No. 1H**
Field	**(Pavo) SECTION 30, T16S R29E**	Wellbore	**No.1H AWB LT01**
Facility	**Pavo Mesa 30 Federal No. 1H**	Sidetrack from	**No. 1H AWB OH** at **6739.00 MD**

WELLPATH DATA (189 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Closure Dist [ft]	Closure Dir [°]	DLS [°/100ft]	Comments
10749.00	89.300	94.000	7084.93	3853.29	-212.24	3847.57	610602.17	689203.78	32°53'39.968"N	104°06'27.621"W	3853.42	93.157	1.56	
10781.00	89.700	93.200	7085.21	3885.29	-214.25	3879.51	610634.11	689201.77	32°53'39.947"N	104°06'27.246"W	3885.42	93.161	2.79	
10813.00	90.300	92.500	7085.21	3917.29	-215.84	3911.47	610666.06	689200.18	32°53'39.931"N	104°06'26.872"W	3917.42	93.158	2.88	
10845.00	90.300	92.900	7085.04	3949.29	-217.34	3943.43	610698.03	689198.67	32°53'39.915"N	104°06'26.497"W	3949.42	93.155	1.25	
10877.00	90.400	92.900	7084.85	3981.29	-218.96	3975.39	610729.98	689197.06	32°53'39.899"N	104°06'26.122"W	3981.42	93.153	0.31	
10909.00	90.400	92.900	7084.63	4013.29	-220.58	4007.35	610761.94	689195.44	32°53'39.882"N	104°06'25.747"W	4013.42	93.151	0.00	
10941.00	90.300	92.900	7084.43	4045.28	-222.20	4039.31	610793.89	689193.82	32°53'39.865"N	104°06'25.373"W	4045.42	93.149	0.31	
10966.00	90.300	92.900	7084.30	4070.28	-223.47	4064.28	610818.86	689192.55	32°53'39.852"N	104°06'25.080"W	4070.41	93.147	0.00	
11021.00†	90.300	92.900	7084.01	4125.28	-226.25	4119.20	610873.78	689189.77	32°53'39.824"N	104°06'24.436"W	4125.41	93.144	0.00	Proj. To Bit

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
No. 1H BHL		6990.00	-194.44	4141.41	**610895.99**	**689221.58**	32°53'40.138"N	104°06'24.174"W	point
No. 1H TGT (850' VS)		7035.00	-16.82	850.13	607605.00	689399.18	32°53'41.964"N	104°07'02.769"W	point

WELLPATH COMPOSITION Ref Wellbore: No.1H AWB LT01 Ref Wellpath: No.1H AWP LT01

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	6739.46	Gyrodata standard - Continuous gyro	Gyro	No. 1H AWB OH
6739.46	10966.00	NaviTrak (Standard)	MWD	No.1H AWB LT01
10966.00	11021.00	Blind Drilling (std)	Projection to bit	No.1H AWB LT01

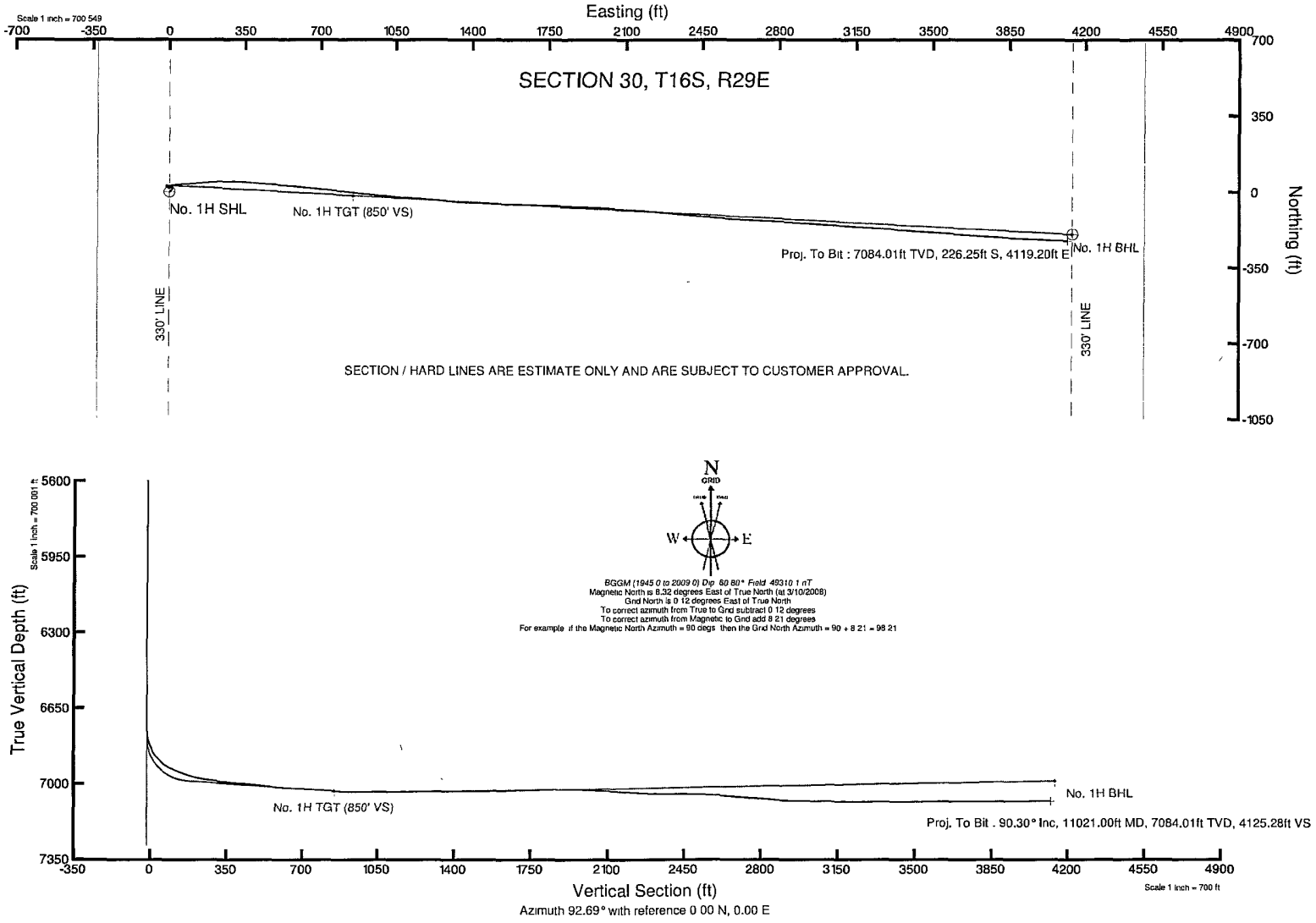
Cimarex Energy Co.

Location: Eddy County, NM
Field: (Pavo) SECTION 30, T16S R29E
Facility: Pavo Mesa 30 Federal No. 1H

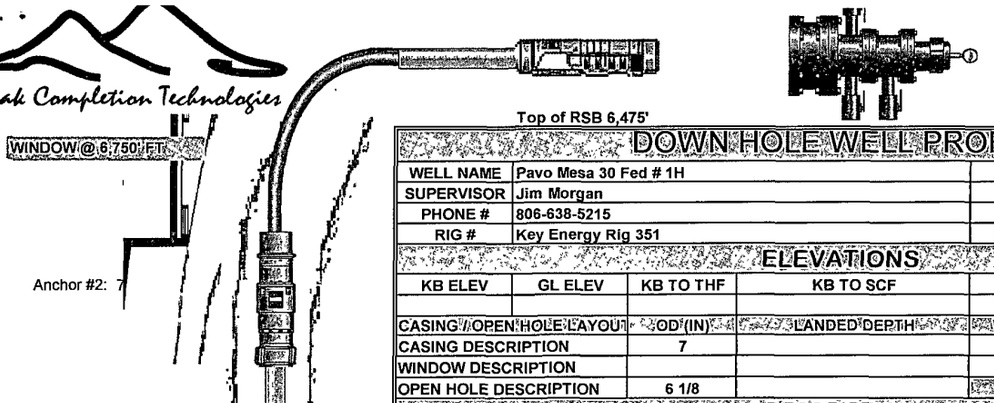
Slot: No. 1H SHL
Well: No. 1H
Wellbore: No.1H AWB LT01

INTEQ

Plot reference wellpath is No 1H AWP LT01	
True vertical depths are referenced to Rig on No 1H SHL (RT)	Grid System: NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No 1H SHL (RT)	North Reference: Grid north
Rig on No 1H SHL (RT) to Ground Elev: 3718 feet	Scale: True distance
Ground Elev to Mud line (Facility: Pavo Mesa 30 Federal No 1H): -3701 feet	Depths are in feet
Coordinates are in feet referenced to Facility Center	Created by: Victor Hernandez on 5/2/2008



Peak Completion Technologies



Top of RSB 6,475'

TOTAL MEASURED DEPTH @ 11,021 FT

DOWN HOLE WELL PROFILE

WELL NAME	Pavo Mesa 30 Fed # 1H	DATE	6/27/08
SUPERVISOR	Jim Morgan	TOOL HAND	Ray Lollar
PHONE #	806-638-5215	PHONE #	432-425-2193
RIG #	Key Energy Rig 351	FIELD TICKET #	

ELEVATIONS

KB ELEV	GL ELEV	KB TO THF	KB TO SCF	RIG KBD	PBTD
				19	

CASING / OPEN HOLE LAYOUT	OD (IN)	LANDED DEPTH	WEIGHT (LB/FT)	TOP OF (FTKB)
CASING DESCRIPTION	7		26	
WINDOW DESCRIPTION				
OPEN HOLE DESCRIPTION	6 1/8		JUNCTION @	6,671'

DESCRIPTION

Window: 6,750'-6,761'

STEERING DIRECTIONS

DOWNHOLE DESCRIPTION FROM BOTTOM UP (Tubing String)

BOTTOM @	DESCRIPTION	LENGTH	ID	OD
10411.00	Pump Out Sub	0.90	0.75	4.50
10410.10	4 1/2 LTC box x 3 1/2 8rd pin	1.17	4.50	4.50
10408.93	2 Jts LTC 11.6# P-110 Liner	80.93	4.50	4.50
10328.00	4 1/2 x 2' LTC sub	2.11	4.50	4.50
10325.89	7 x 4 1/2 Anchor #1	4.71	4.00	5.88
10321.18	4 1/2 LTC sub	6.09	4.00	4.50
10315.09	7 Jts LTC 11.6# P-110 Liner	296.16	4.00	4.50
10018.93	4 1/2 LTC x 2' sub	2.11	4.00	4.50
10016.82	7 x 4 1/2 Packer #1	6.06	4.00	5.88
10010.76	4 1/2 x 6" LTC sub	6.09	4.00	4.50
10004.67	9 Jts LTC 11.6# P-110 Liner	378.74	4.00	4.50
9625.93	2 3/4" Strata-Port #1	2.93	2.81	5.88
9623.00	10 Jts LTC 11.6# P-110 Liner	422.96	4.00	4.50
9200.04	4 1/2 LTC x 2' sub	2.11	4.00	4.50
9197.93	7 x 4 1/2 Packer #2	6.06	4.00	5.75
9191.87	4 1/2 LTC x 6' sub	6.11	4.00	4.50
9185.76	16 Jts LTC 11.6# P-110 Liner	670.47	4.00	4.50
8515.29	4 1/2 LTC x 2' sub	2.11	4.00	4.50
8513.18	7 x 4 1/2 Packer #3	6.06	4.00	5.88
8507.12	4 1/2 LTC x 6' sub	6.09	4.00	4.50
8501.03	11 Jts LTC 11.6# P-110 Liner	460.68	4.00	4.50
8040.35	3 " Strata-Port #2	2.93	3.06	5.75
8037.42	4 Jts LTC 11.6# P-110 Liner	168.70	4.00	4.50
7868.72	4 1/2 LTC x 2' sub	2.11	4.00	4.50
7866.61	4 1/2 Packer #4	6.06	5.75	5.88
7860.55	4 1/2 LTC x 6' sub	6.09	4.00	4.50
7854.46	5 Jts LTC 11.6# P-110 Liner	210.56	4.00	4.50
7643.90	3 1/4 " Strata-Port #3	2.96	3.31	5.75
7640.94	5 Jts LTC 11.6# P-110 Liner	229.82	4.00	4.50
7411.12	4 1/2 LTC x 2' sub	2.11	4.00	0.00
7409.01	7 x 4 1/2 Packer #5	6.06	4.00	4.50
7402.95	4 1/2 LTC x 6' sub	6.09	4.00	4.50
7396.86	6 Jts LTC 11.6# P-110 Liner	253.31	4.00	4.50
7143.55	3 1/2 " Strata-Port #4	2.93	3.56	5.88
7140.62	2 Jts LTC 11.6# P-110 Liner	83.99	4.00	4.50
7056.63	4 1/2 LTC x 2' sub	2.11	4.00	4.50
7054.52	7 x 4 1/2 Anchor #2	4.71	4.00	5.88
7049.81	4 1/2 LTC x 6' sub	6.09	4.00	4.50
7043.72	4 1/2 BTC box x 4 1/2 LTC pin	2.09	4.00	4.50
7041.63	13 Jts BTC 11.6# P-110 Liner	555.73	4.00	4.50
6485.90	4 1/2 double pin BTC x LTC	1.49	4.00	4.50
6480.45	7 x 4 1/2 RSB Packer	5.45	4.00	5.95
6475.40	Hydraulic Setting Tool	5.05	4.00	5.75
6467.73	3 1/2 If Drill Pipe Sub	7.67	2.50	3.50
6464.61	3 1/2 IF Pin x 2 7/8 AOL box	3.12	2.50	4.50
6460.85	2 7/8 AOH Drill Pipr Sub	3.76	2.50	2.88
6461.50	211 Joints AOH drill Pipe		2.50	2.88
-1.35	Stick Up			

WEIGHT OF TUBING STRING		TOTAL STRING LENGTH	3951.64
PUSH / PULL TEST		STICK UP OFF RIG FLOOR	
LINER STRING WEIGHT		TUBING BOTTOM	3951.64

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**** Cimarex Energy Company ****