

Cimarex Energy Co.  
600 N. Marienfeld St.  
Suite 600  
Midland, Texas 79701  
PHONE 432.571.7800



October 28, 2008

Via facsimile and Certified U.S. Mail-Return Receipt Requested No. 7007 0710 0003 0317 3526

COG Oil & Gas LP  
550 West Texas Ave, Suite 1300  
Midland, Texas 79701

Attn: Jan Preston Spradlin

Re: **Cimarex Energy Co's.**  
**Antietam 10 Federal Com No. 2-H**  
**S/2S/2 Section 10-T15S-R31E**  
**Chaves County, New Mexico**

Dear Jan:

Cimarex Energy Co. ("Cimarex") hereby proposes to drill the above-captioned well, a horizontal-lower Abo test, to a vertical depth of approximately 9,250' from a legal surface location in the SE/4SE/4 of the captioned section, township and range. We will then kick-off up the wellbore and continue to drill an estimated 4,500' lateral leg to a legal bottom hole located in the SW/4SW/4 of said section, township and range. Cimarex' projected true vertical depth is approximately 8,800' and our final measured depth is approximately 13,000'.

Enclosed are two (2) copies of our AFE in the total amount of \$ 4,668,648.00 that sets forth our estimated cost to drill and complete the well. If you would like to participate in the well, please sign and return a copy of the AFE to the undersigned at the above-letterhead address. Our proposed form of operating agreement will be delivered upon receipt of your election to participate in the well. If you choose not to participate in the well, Cimarex would be interested in a term assignment or farmout of your leasehold interest in this proposed unit.

If there is anything further that you should require in regard to this matter, please do not hesitate to call upon us. Thank you very much.

Regards,

**CIMAREX ENERGY CO.**

A handwritten signature in black ink, appearing to read "Hayden P. Tresner", written over a horizontal line.

Hayden P. Tresner  
Landman



PROJECT COST ESTIMATE

LEASE NAME: Antietam 10

WELL NO.:

2H

INTANGIBLES	Codes	DRY HOLE COST	Codes	AFTER CASING POINT	COMPLETED WELL COST
ROADS & LOCATION PREPARATION / RESTORATION	DIDC.100	\$110,000	DICC.100	\$3,000	\$113,000
DAMAGES	DIDC.105	6,000	DICC.105		\$6,000
MUD/FLUIDS DISPOSAL CHARGES	DIDC.255	28,000	DICC.235	40,000	\$68,000
DAY RATE 41 DH DAYS 8 ACP DAYS @ PER DAY	DIDC.115	628,000	DICC.120	117,400	\$745,400
MISC PREPARATION COST (mouse hole, rat hole, pads, pile clusters, misc.)	DIDC.120	16,000			\$16,000
BITS	DIDC.125	65,000	DICC.125	1,000	\$66,000
FUEL \$2.80 PER GALLON Gals/Day	DIDC.135	110,740	DICC.130	7,000	\$117,740
WATER / COMPLETION FLUIDS	DIDC.140	45,100	DICC.135	75,000	\$120,100
MUD & ADDITIVES	DIDC.145	78,400			\$78,400
SURFACE RENTALS	DIDC.150	53,700	DICC.140	83,200	\$136,900
DOWNHOLE RENTALS	DIDC.155	138,000	DICC.145	28,200	\$166,200
FORMATION EVALUATION (DST, Coring including evaluation, G&G SERVICES)	DIDC.160				
MUD LOGGING 26 DAYS @ \$1,200 PER DAY	DIDC.170	38,200			\$38,200
OPEN HOLE LOGGING	DIDC.180	40,000			\$40,000
CEMENTING & FLOAT EQUIPMENT	DIDC.185	50,000	DICC.155	37,000	\$87,000
TUBULAR INSPECTIONS	DIDC.190	5,000	DICC.160	6,000	\$11,000
CASING CREWS	DIDC.195	16,000	DICC.165	30,000	\$46,000
EXTRA LABOR, WELDING, ETC.	DIDC.200	24,600	DICC.170	5,000	\$29,600
LAND TRANSPORTATION (Trucking)	DIDC.205	24,600	DICC.175	2,800	\$27,400
SUPERVISION	DIDC.210	83,200	DICC.180	22,400	\$105,600
TRAILER HOUSE/CAMP/CATERING	DIDC.280	29,400	DICC.255	4,000	\$33,400
OTHER MISC EXPENSES	DIDC.220	12,300	DICC.190	1,000	\$13,300
OVERHEAD	DIDC.225	12,300	DICC.195	4,500	\$16,800
REMEDIAL CEMENTING	DIDC.231		DICC.215		
MOB/DEMOB	DIDC.240	120,000			\$120,000
DIRECTIONAL DRILLING SERVICES 17 DAYS @ 12000 PER DAY	DIDC.245	222,000			\$222,000
DOCK, DISPATCHER, CRANE	DIDC.250		DICC.230		
MARINE & AIR TRANSPORTATION	DIDC.275		DICC.250		
SOLIDS CONTROL	DIDC.260	189,600			\$189,600
WELL CONTROL EQUIP (Snubbing services)	DIDC.265	87,000	DICC.240	10,500	\$97,500
FISHING & SIDETRACK OPERATIONS	DIDC.270	75,000	DICC.245		\$75,000
COMPLETION RIG 7 DAYS @ 4600 PER DAY			DICC.115	32,200	\$32,200
COIL TUBING 1 DAYS @ 38000 PER DAY			DICC.260	38,000	\$38,000
COMPLETION LOGGING, PERFORATING, WL UNITS, WL SURVEYS			DICC.200	10,000	\$10,000
STIMULATION			DICC.210	444,000	\$444,000
LEGAL/REGULATORY/CURATIVE	DIDC.300	5,000	DICC.280		\$5,000
WELL CONTROL INSURANCE \$0.35 PER FOOT	DIDC.285	4,518			\$4,518
CONTINGENCY 5% OF DRILLING INTANGIBLES	DIDC.435	112,133	DICC.220	51,910	\$164,043
CONSTRUCTION FOR WELL EQUIPMENT			DWEA.110	1,000	\$1,000
CONSTRUCTION FOR LEASE EQUIPMENT			DLEQ.110	35,000	\$35,000
CONSTRUCTION FOR SALES P/L			DICC.265		
<b>TOTAL INTANGIBLE COST</b>		<b>\$2,429,790</b>		<b>\$1,090,110</b>	<b>\$3,519,900</b>
<b>TANGIBLE - WELL EQUIPMENT</b>					
<b>CASING</b>	<b>SIZE</b>	<b>FEET</b>	<b>\$/FOOT</b>		
DRIVE PIPE				DWEB.150	
CONDUCTOR PIPE	20 "	70	95.00	DWEB.130	4,000
WATER STRING				DWEB.135	
SURFACE CASING	13 3/8"	340	81.60	DWEB.140	27,744
INTERMEDIATE CASING	8 5/8"	3,950	51.25	DWEB.145	202,438
DRILLING LINER				DWEB.145	
DRILLING LINER				DWEB.145	
PRODUCTION CASING OR LINER	5 1/2"	9,250	37.36		
PRODUCTION TIE-BACK	3 1/2 x 2-7/8"	4,800		DWEA.100	74,074
TUBING	2 7/8"	8,400	12.93	DWEA.105	108,612
N/C WELL EQUIPMENT				DWEA.115	6,000
WELLHEAD, TREE, CHOKES				DWEB.115	15,000
LINER HANGER, ISOLATION PACKER				DWEB.100	
PACKER, NIPPLES				DWEA.125	125,000
PUMPING UNIT, ENGINE				DWEA.130	
LIFT EQUIPMENT (BHP, Rods, Anchors)				DLEQ.100	110,000
<b>TANGIBLE - LEASE EQUIPMENT</b>				DLEQ.105	27,300
N/C LEASE EQUIPMENT				DLEQ.115	44,000
TANKS, TANKS STEPS, STAIRS				DLEQ.120	17,000
BATTERY (Heater Treater, Separator, Gas Treating Equipment)				DLEQ.125	13,000
FLOW LINES (Line Pipe from wellhead to central facility)				DLEQ.130	1,000
OFFSHORE PRODUCTION STRUCTURE FOR FACILITIES				DWEA.135	
PIPELINES TO SALES				DWEA.140	
<b>TOTAL TANGIBLES</b>		<b>\$249,182</b>		<b>\$899,566</b>	<b>\$1,148,748</b>
<b>P&amp;A COSTS</b>	DIDC.295	150,000	DICC.275	(150,000)	
<b>TOTAL COST</b>		<b>\$2,828,972</b>		<b>\$1,839,676</b>	<b>\$4,668,648</b>

**SENDER: COMPLETE THIS SECTION**

- Complete items 1, 2, and 3. Also complete item 4 if Restricted Delivery is desired.
- Print your name and address on the reverse so that we can return the card to you.
- Attach this card to the back of the mailpiece, or on the front if space permits.

1. Article Addressed to:

COG Oil & Gas LP  
 550 West Texas Ave. Suite 1300  
 Midland, Texas 79701  
 Attention: Ms. Jan P. Spradlin

2. Article Number

(Transfer from service label)

7007 0710 0003 0317 3526

**COMPLETE THIS SECTION ON DELIVERY**

A. Signature

X

L. Koening

 Agent Addressee

B. Received by (Printed Name)

L. Koening

C. Date of Delivery

10/30

D. Is delivery address different from item 1?  Yes No

If YES, enter delivery address below:

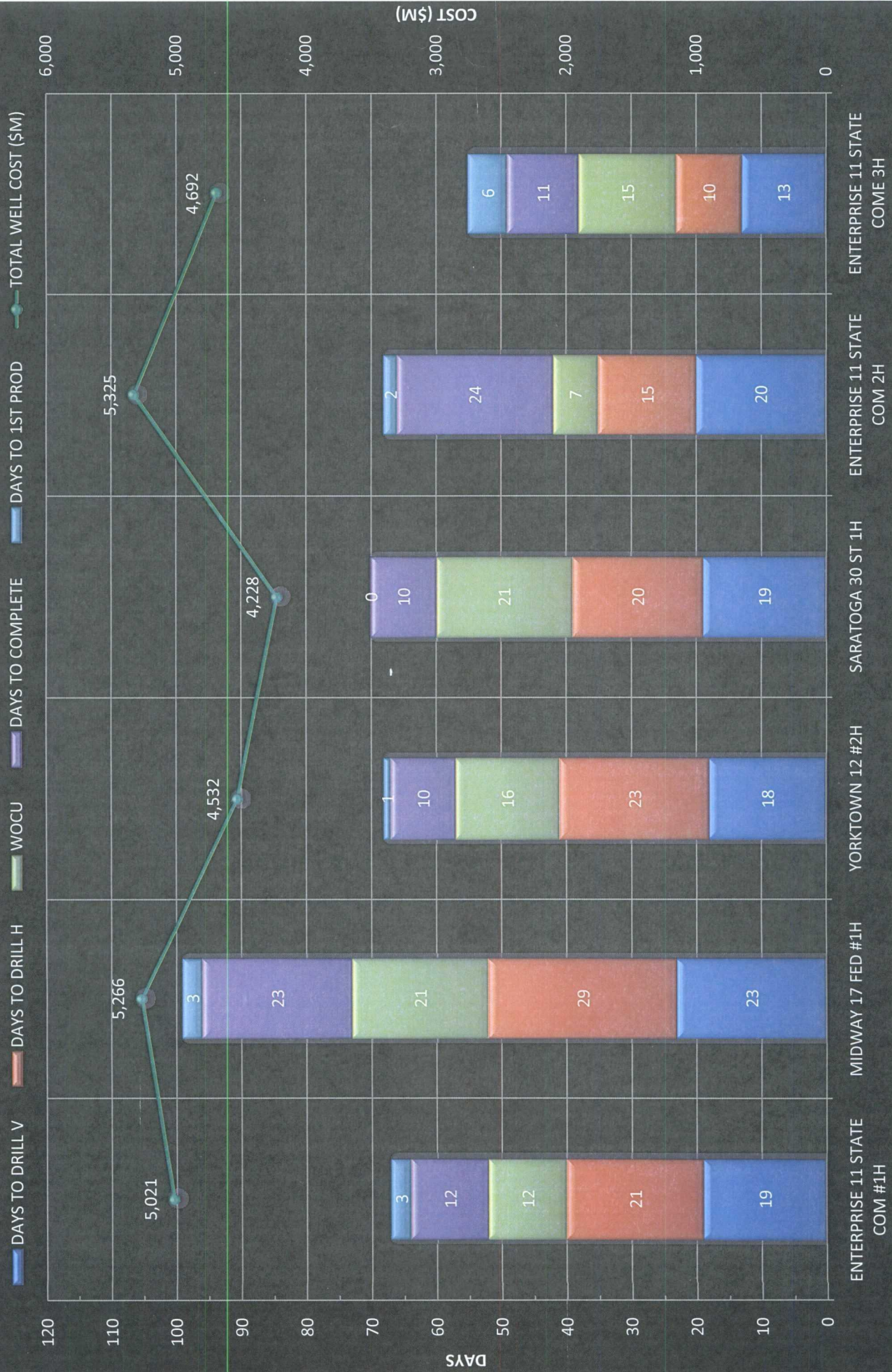
3. Service Type

 Certified Mail Express Mail Registered Return Receipt for Merchandise Insured Mail C.O.D.

4. Restricted Delivery? (Extra Fee)

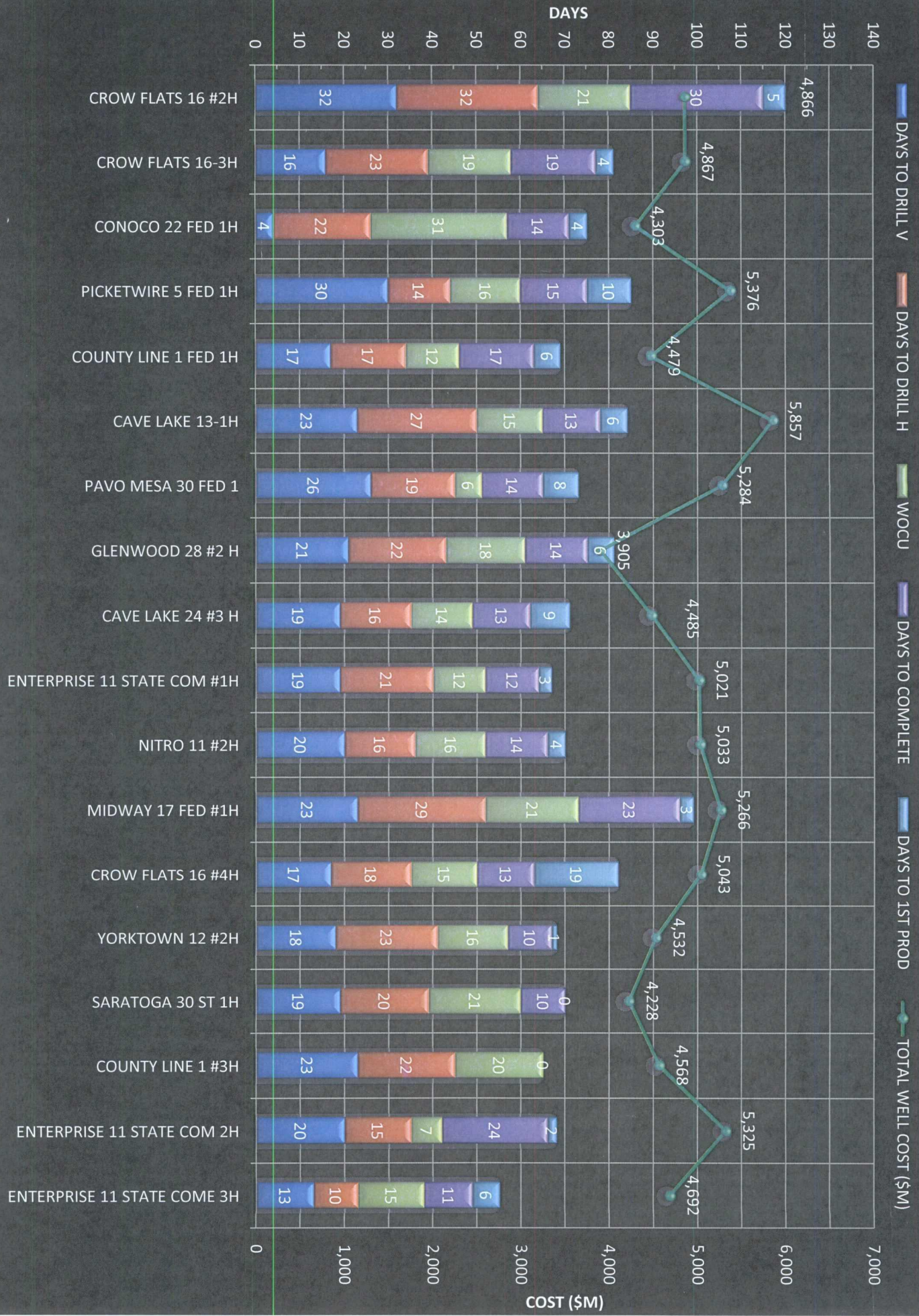
 Yes

# CAPROCK NM ABO SPUD TO 1ST PROD



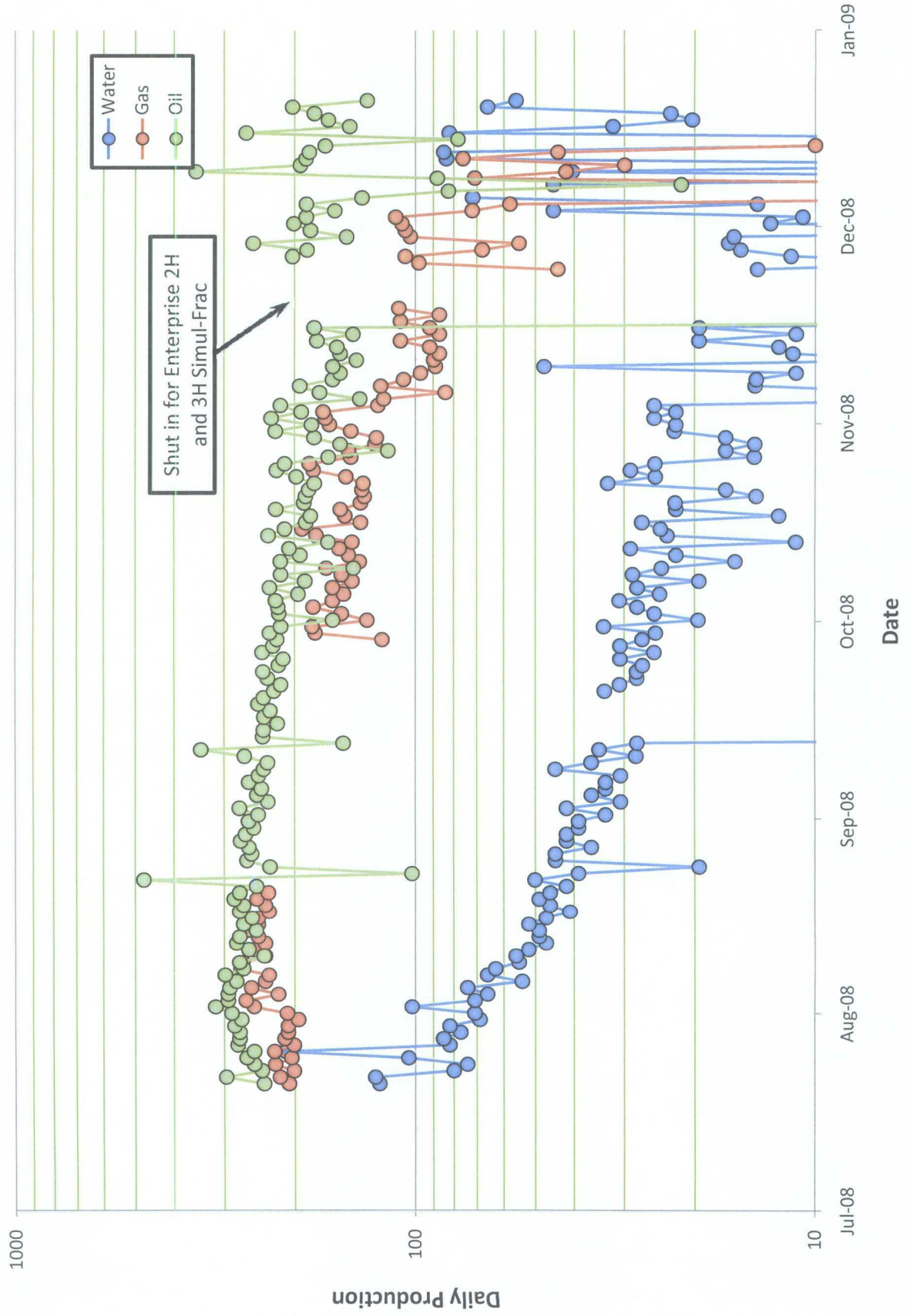


# PERMIAN BASIN NM\_ABO SPUD TO 1ST PROD INVESTIGATION

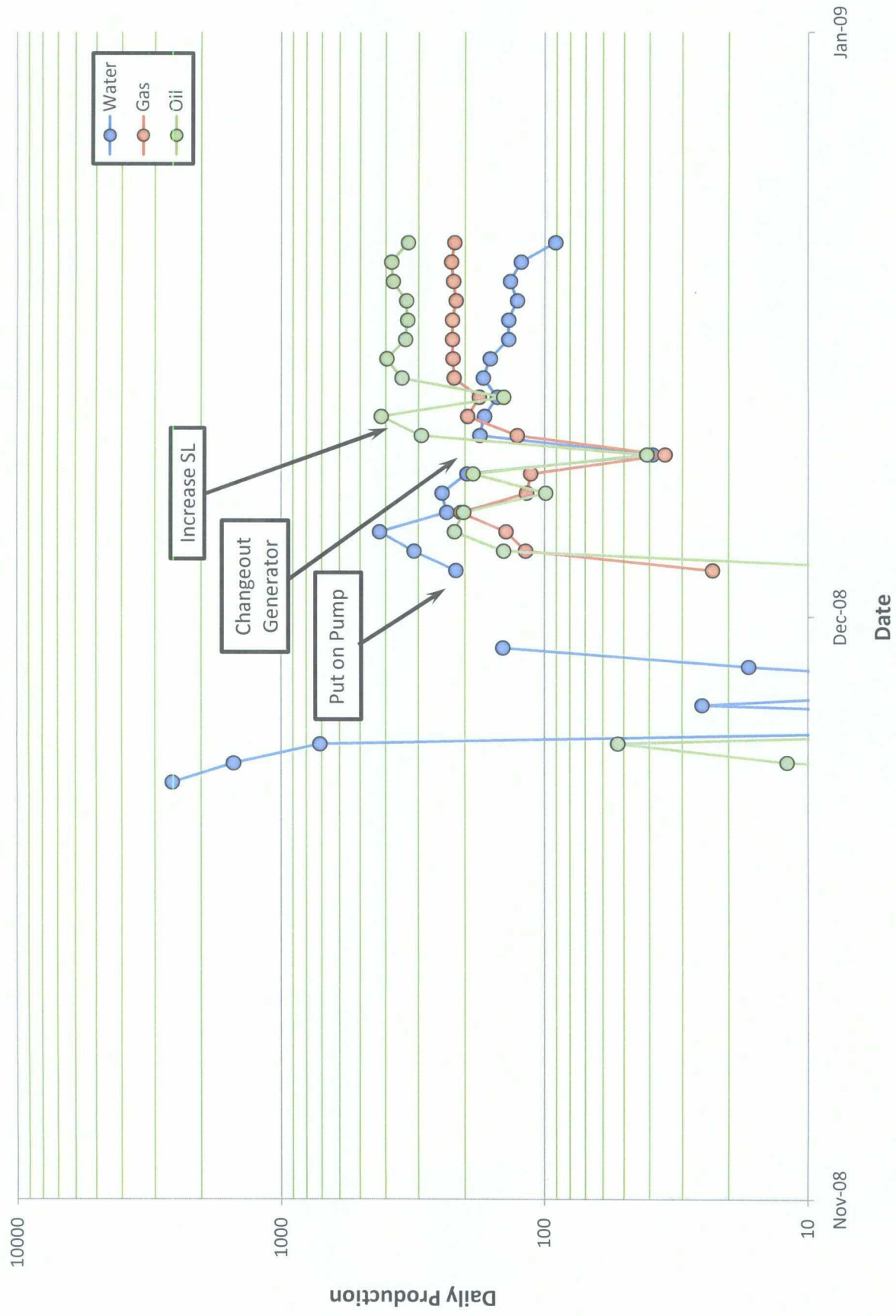




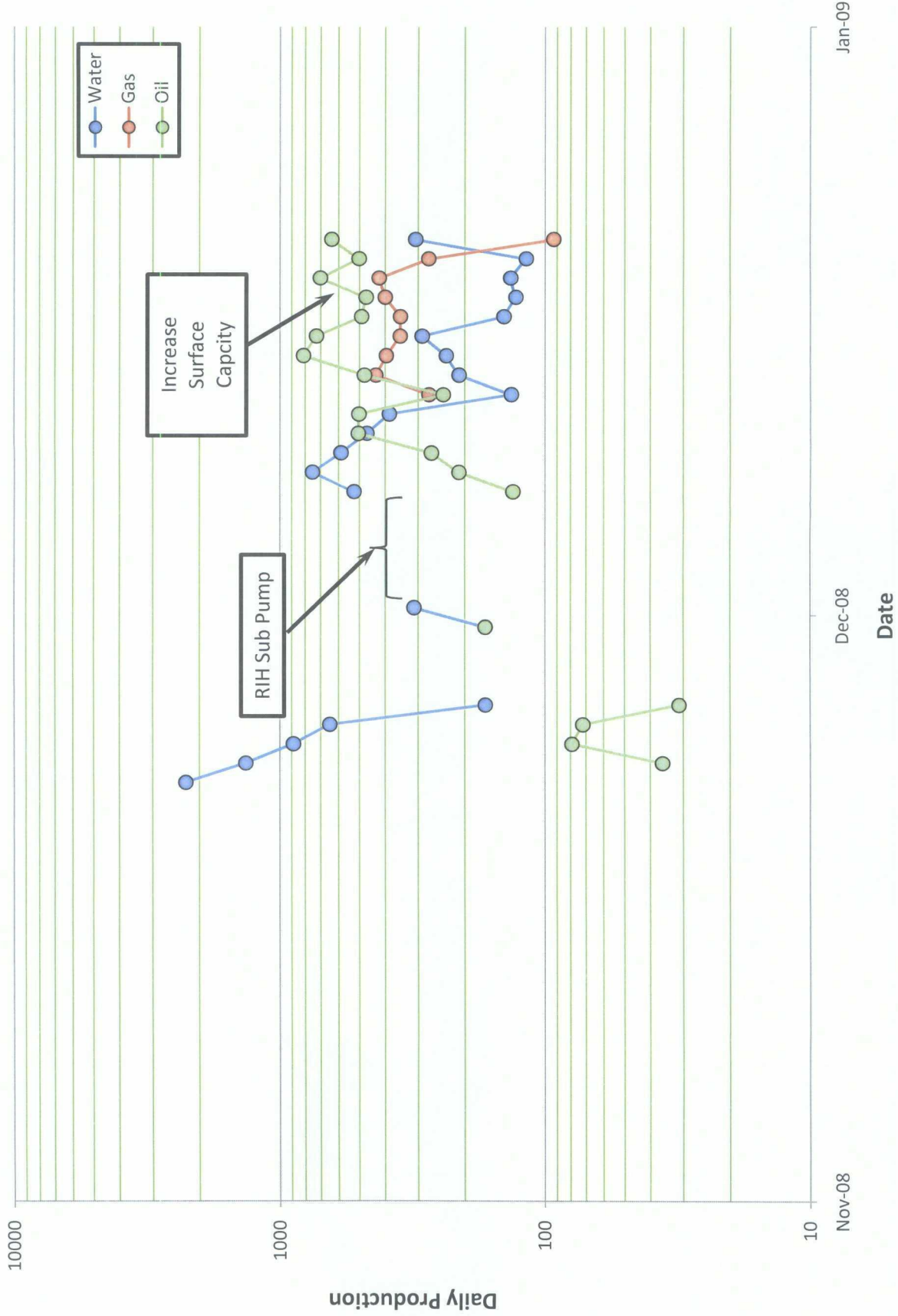
# Enterprise 11 State #1H



# Enterprise 11 2H

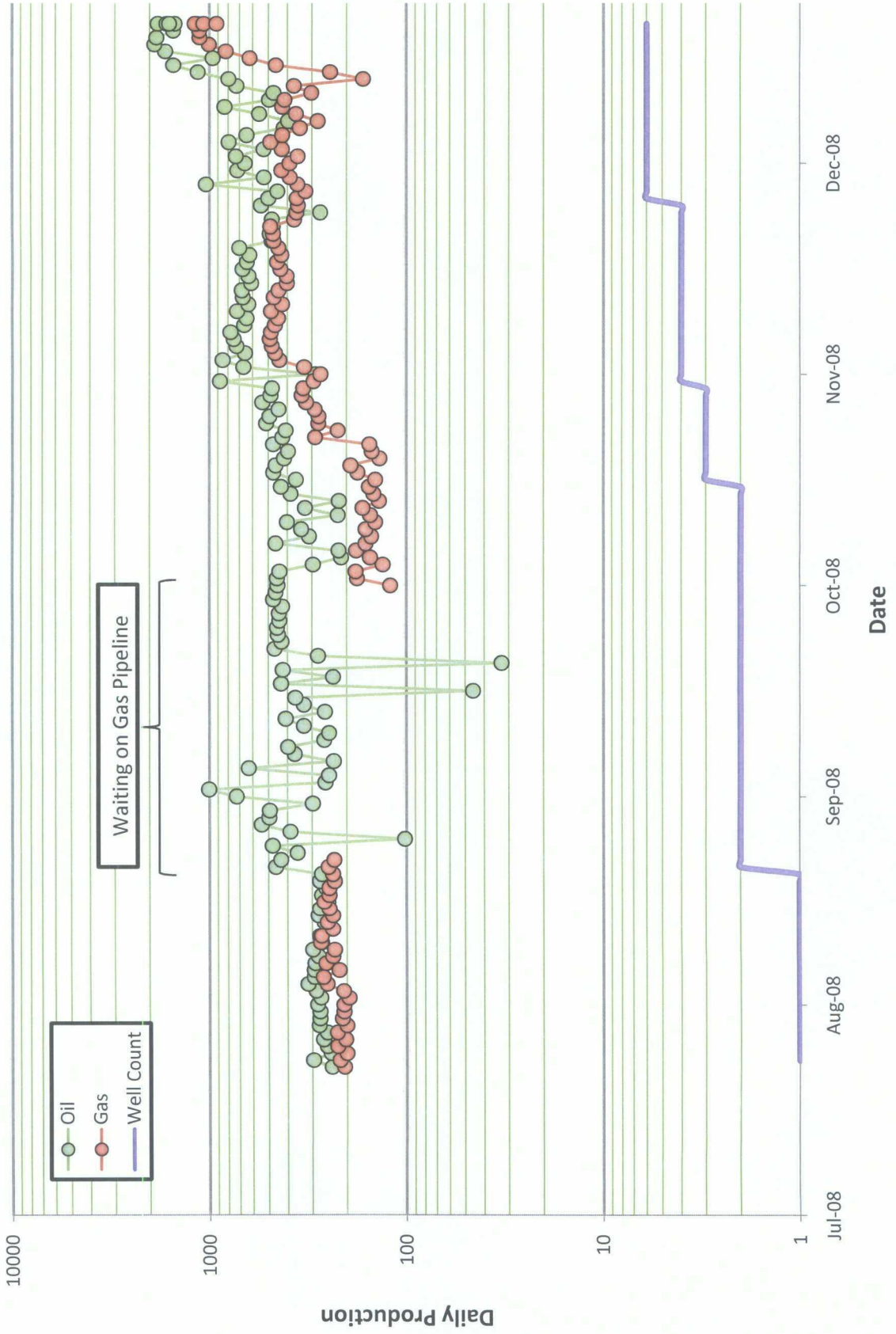


# Enterprise 11 3H

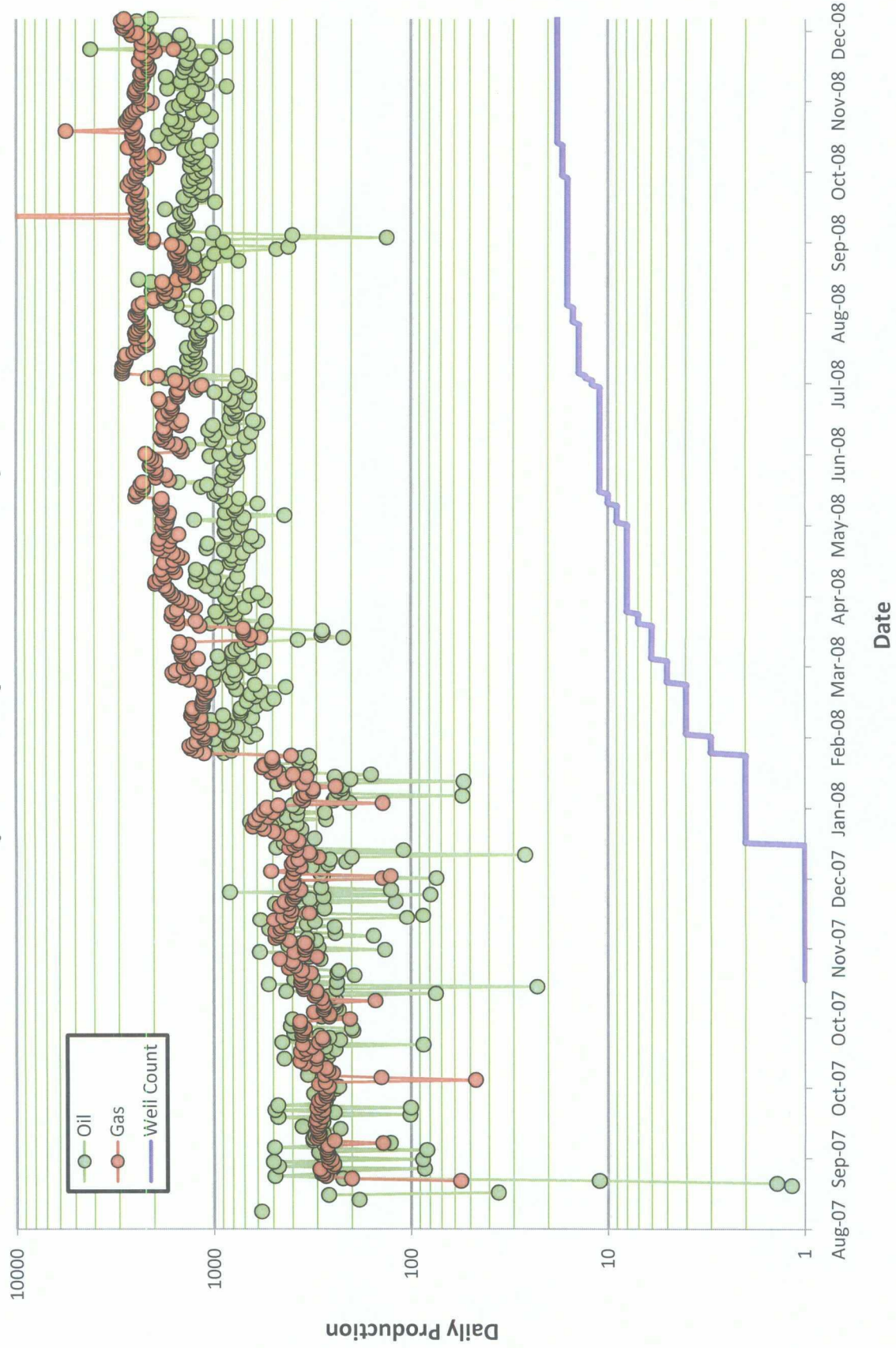




# Abo Cum Gross Daily Production (Caprock Wells)



# Abo Cum Gross Daily Production (All XEC Operated Wells)











# Planned Wellpath Report

Plan #3  
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## REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co. of Colorado	Slot	No. 3H SHL
Area	Chaves County, NM	Well	No. 3H
Field	(Enterprise) Sec 11, T15S, R31E	Wellbore	No. 3H PWB
Facility	Enterprise 11 Fed Com No. 3H		

## REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico State Planes, Eastern Zone (3001), US feet		
North Reference	Grid	Software System	WellArchitect@ 2.0
Scale	0.99994	User	Victor Hernandez
Convergence at slot	0.29° East	Report Generated	10/31/2008 at 6:52:35 PM
		Database/Source file	WA_Midland/No._3H_PWB.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	663654.10	739623.00	33°01'55.718"N	103°47'57.635"W			
Facility Reference Pt			663654.10	739623.00	33°01'55.718"N	103°47'57.635"W			
Field Reference Pt			663654.10	739623.00	33°01'55.718"N	103°47'57.635"W			

## WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 3H SHL (RT) to Facility Vertical Datum	25.00ft
Horizontal Reference Pt	Facility Center	Rig on No. 3H SHL (RT) to Mean Sea Level	4429.00ft
Vertical Reference Pt	Rig on No. 3H SHL (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 3H SHL (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	89.48°



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Plan #3  
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Field	(Enterprise) Sec 11, T15S, R31E	Wellbore	No. 3H PWB
Facility	Enterprise 11 Fed Com No. 3H		

## WELLPATH DATA (51 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS ["/100ft]	Comments
0.00	0.000	89.481	0.00	0.00	0.00	0.00	0.00	Tie On
8580.00	0.000	89.481	8580.00	0.00	0.00	0.00	0.00	EST. KOP
8680.00†	25.463	89.481	8676.74	21.86	0.20	21.86	25.46	
8780.00†	50.926	89.481	8754.69	83.18	0.75	83.18	25.46	
8880.00†	76.389	89.481	8798.70	172.06	1.56	172.06	25.46	
8931.10	89.400	89.481	8805.00	222.66	2.02	222.65	25.46	EOC
8980.00†	89.400	89.481	8805.52	271.56	2.46	271.55	0.00	
9080.00†	89.400	89.481	8806.56	371.55	3.36	371.54	0.00	
9180.00†	89.400	89.481	8807.61	471.55	4.27	471.53	0.00	
9280.00†	89.400	89.481	8808.66	571.54	5.17	571.52	0.00	
9380.00†	89.400	89.481	8809.70	671.54	6.08	671.51	0.00	
9480.00†	89.400	89.481	8810.75	771.53	6.99	771.50	0.00	
9580.00†	89.400	89.481	8811.80	871.53	7.89	871.49	0.00	
9680.00†	89.400	89.481	8812.84	971.52	8.80	971.48	0.00	
9780.00†	89.400	89.481	8813.89	1071.52	9.70	1071.47	0.00	
9880.00†	89.400	89.481	8814.94	1171.51	10.61	1171.46	0.00	
9980.00†	89.400	89.481	8815.98	1271.50	11.51	1271.45	0.00	
10080.00†	89.400	89.481	8817.03	1371.50	12.42	1371.44	0.00	
10180.00†	89.400	89.481	8818.08	1471.49	13.32	1471.43	0.00	
10280.00†	89.400	89.481	8819.12	1571.49	14.23	1571.42	0.00	
10380.00†	89.400	89.481	8820.17	1671.48	15.13	1671.41	0.00	
10480.00†	89.400	89.481	8821.22	1771.48	16.04	1771.40	0.00	
10580.00†	89.400	89.481	8822.26	1871.47	16.94	1871.39	0.00	
10680.00†	89.400	89.481	8823.31	1971.47	17.85	1971.39	0.00	
10780.00†	89.400	89.481	8824.36	2071.46	18.76	2071.38	0.00	
10880.00†	89.400	89.481	8825.40	2171.46	19.66	2171.37	0.00	
10980.00†	89.400	89.481	8826.45	2271.45	20.57	2271.36	0.00	
11080.00†	89.400	89.481	8827.50	2371.44	21.47	2371.35	0.00	
11180.00†	89.400	89.481	8828.54	2471.44	22.38	2471.34	0.00	
11280.00†	89.400	89.481	8829.59	2571.43	23.28	2571.33	0.00	





# Planned Wellpath Report

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Area	Chaves County, NM	Well	No. 3H
Field	(Enterprise) Sec 11, T15S, R31E	Wellbore	No. 3H PWB
Facility	Enterprise 11 Fed Com No. 3H		

## WELLPATH DATA (51 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS ["/100ft]	Comments
11380.00†	89.400	89.481	8830.64	2671.43	24.19	2671.32	0.00	
11480.00†	89.400	89.481	8831.68	2771.42	25.09	2771.31	0.00	
11580.00†	89.400	89.481	8832.73	2871.42	26.00	2871.30	0.00	
11680.00†	89.400	89.481	8833.78	2971.41	26.90	2971.29	0.00	
11780.00†	89.400	89.481	8834.82	3071.41	27.81	3071.28	0.00	
11880.00†	89.400	89.481	8835.87	3171.40	28.71	3171.27	0.00	
11980.00†	89.400	89.481	8836.92	3271.39	29.62	3271.26	0.00	
12080.00†	89.400	89.481	8837.96	3371.39	30.52	3371.25	0.00	
12180.00†	89.400	89.481	8839.01	3471.38	31.43	3471.24	0.00	
12280.00†	89.400	89.481	8840.06	3571.38	32.34	3571.23	0.00	
12380.00†	89.400	89.481	8841.10	3671.37	33.24	3671.22	0.00	
12480.00†	89.400	89.481	8842.15	3771.37	34.15	3771.21	0.00	
12580.00†	89.400	89.481	8843.20	3871.36	35.05	3871.20	0.00	
12680.00†	89.400	89.481	8844.24	3971.36	35.96	3971.19	0.00	
12780.00†	89.400	89.481	8845.29	4071.35	36.86	4071.18	0.00	
12880.00†	89.400	89.481	8846.34	4171.35	37.77	4171.17	0.00	
12980.00†	89.400	89.481	8847.38	4271.34	38.67	4271.16	0.00	
13080.00†	89.400	89.481	8848.43	4371.33	39.58	4371.16	0.00	
13180.00†	89.400	89.481	8849.48	4471.33	40.48	4471.15	0.00	
13280.00†	89.400	89.481	8850.52	4571.32	41.39	4571.14	0.00	
13325.66	89.400	89.481	8851.00†	4616.98	41.80	4616.79	0.00	No. 3H BHL



# Planned Wellpath Report

Plan #3  
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## REFERENCE WELLPATH IDENTIFICATION

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Area	Chaves County, NM	Well	No. 3H
Field	(Enterprise) Sec 11, T15S, R31E	Wellbore	No. 3H PWB
Facility	Enterprise 11 Fed Com No. 3H		

## HOLE & CASING SECTIONS Ref Wellbore: No. 3H PWB Ref Wellpath: Plan #3

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
17.5in Open Hole	0.00	340.00	340.00	0.00	340.00	0.00	0.00	0.00	0.00
13.375in Casing	0.00	340.00	340.00	0.00	340.00	0.00	0.00	0.00	0.00
12.25in Open Hole	340.00	3950.00	3610.00	340.00	3950.00	0.00	0.00	0.00	0.00
9.625in Casing	340.00	3950.00	3610.00	340.00	3950.00	0.00	0.00	0.00	0.00
8.75in Open Hole	3950.00	8500.00	4550.00	3950.00	8500.00	0.00	0.00	0.00	0.00
7in Casing	3950.00	8500.00	4550.00	3950.00	8500.00	0.00	0.00	0.00	0.00
6.125in Open Hole	8500.00	13325.66	4825.66	8500.00	NA	0.00	0.00	NA	NA

## TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 3H BHL	13325.66	8851.00	41.80	4616.79	668270.60	739664.80	33°01'55.897"N	103°47'03.406"W	point

## SURVEY PROGRAM Ref Wellbore: No. 3H PWB Ref Wellpath: Plan #3

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment
25.00	13325.66	NavTrak (Standard)	No. 3H PWB



<b>7 x 4 1/2 Tools</b>	<b>Pin Value</b>	<b># Pins</b>	<b>Shear Value</b>
Peak Pump Out Plug	338	12	4056
Peak HydroPak Anchors	371	5	1855
Peak Iso-Pak Packers	411	5	2055
Peak Strata-Ports	353	6	2118
Peak Retrieveable Seal Bore	300	6	1800



Top of RSB Packer: 8,312'



**WINDOW @ ?? FT**

3 1/2" Frac Port @ 8,790'  
3 3/4" Ball Actuated

#2 Anchor @ 8,850'

#7 Iso=Pak @ 8,993'

3 1/4" Frac Port @ 9,301'  
3 1/2" Ball Actuated

#6 Iso=Pak @ 9,614'

3" Frac Port @ 9,794"  
3 1/4" Ball Actuated

#5 Iso=Pak @ 10,284'

2 3/4" Frac Port A 10,553'  
3" Ball Actuated

#4 Iso=Pak @ 10,953'

2 1/2 Frac Port @ 11,262'  
2 3/4" Ball Actuated

#3 Iso=Pak @ 11,532'

2 1/4 Frac Port @ 11,756'  
2 1/2" Ball Actuated

#2 Iso=Pak @ 12,066'

2" Frac Port @ 12,377'

2 1/4" Ball Actuated

#1 Iso=Pak @ 12,561'

#1 Anchor @ 12,791'

Pump Out Plug @ 12,882'

**DOWN HOLE WELL PROFILE**

WELL NAME	Enterprise 11 State #2H	DATE	11/13/08
SUPERVISOR	Jackie Brimer	TOOL HAND	Ray Lollar
PHONE #	575-390-4697	PHONE #	432-425-2193
RIG #	Patriot Rig #4	FIELD TICKET #	11410

ELEVATIONS					
KB ELEV	GL ELEV	KB TO THF	KB TO SCF	RIG KBD	PBTD
				19	
CASING / OPEN HOLE LAYOUT					
CASING DESCRIPTION	OD (IN)	LANDED DEPTH	WEIGHT (LB/FT)	TOP OF (FTKB)	
WINDOW DESCRIPTION	7	8,584'-8,593'	26		
OPEN HOLE DESCRIPTION	6 1/8	13209.00		JUNCTION @	8,593'

STEERING DIRECTIONS					
DOWNHOLE DESCRIPTION FROM BOTTOM UP (Tubing String)					
BOTTOM @	DESCRIPTION	LENGTH	ID	OD	
12882.00	Peak Pump Off Plug with 3/4" ID and check valve assembly	0.94	0.75	4.50	
12881.06	3 1/2 8rd Pin x 4 1/2 LTC Box, P-110 cross-over	0.89	4.00	5.00	
12880.17	2 Joints 4 1/2, 11.6#, P-110 LTC Liner	86.09	4.00	4.50	
12794.08	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.07	4.00	4.50	
12792.01	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	5.88	
12791.43	7 x 4 1/2 Peak Hydro-Pak Anchor #1	4.28	4.00	5.88	
12787.15	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.09	4.00	4.50	
12781.06	5 Joints 4 1/2, 11.6#, P-110 LTC Liner	216.63	4.00	4.50	
12564.43	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.07	4.00	4.50	
12562.36	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	5.88	
12561.78	7 x 4 1/2 eak Extreme Service Isolation Packer with 10K HTHP Element System #1	5.53	4.00	5.75	
12556.25	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.08	4.00	4.50	
12550.17	4 Joints 4 1/2, 11.6#, P-110 LTC Liner	172.80	4.00	4.50	
12377.37	7 x 4 1/2 Peak Selective Sand Frac Sleeve with 2" ID Seat (2 1/4" Ball Actuated) #1	2.92	2.06	5.88	
12374.45	7 Joints 4 1/2, 11.6#, P-110 LTC Liner	304.89	4.00	4.50	
12069.56	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.07	4.00	4.50	
12067.49	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	5.88	
12066.91	7 x 4 1/2 eak Extreme Service Isolation Packer with 10K HTHP Element System #2	5.53	4.00	5.75	
12061.38	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.08	4.00	4.50	
12055.30	7 Joints 4 1/2, 11.6#, P-110 LTC Liner	299.30	4.00	4.50	
11756.00	7 x 4 1/2 Peak Selective Sand Frac Sleeve with 2 1/4" ID Seat (2 1/2" Ball Actuated)	2.92	2.31	5.88	
11753.08	5 Joints 4 1/2, 11.6#, P-110 LTC Liner	217.90	4.00	4.50	
11535.18	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.07	4.00	4.50	
11533.11	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	4.50	
11532.53	ment System #3	5.53	4.00	5.75	
11527.00	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.08	4.00	4.50	
11520.92	6 Joints 4 1/2, 11.6#, P-110 LTC Liner	258.39	4.00	4.50	
11262.53	7 x 4 1/2 Peak Selective Sand Frac Sleeve with 2 1/2" ID Seat (2 3/4" Ball Actuated)	2.92	2.56	5.88	
11259.61	7 Joints 4 1/2, 11.6#, P-110 LTC Liner	303.45	4.00	4.50	
10956.16	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.07	4.00	4.50	
10954.09	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	5.88	
10953.51	7 x 4 1/2 eak Extreme Service Isolation Packer with 10K HTHP Element System #4	5.53	4.00	5.75	
10947.98	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.08	4.00	4.50	
10941.90	9 Joints 4 1/2, 11.6#, P-110 LTC Liner	388.03	4.00	4.50	
10553.87	7 x 4 1/2 Peak Selective Sand Frac Sleeve with 2 3/4" ID Seat (3" Ball Actuated) #4	2.92	2.81	5.88	
10550.95	6 Joints 4 1/2, 11.6#, P-110 LTC Liner	263.43	4.00	4.50	
10287.52	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.07	4.00	4.50	
10285.45	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	5.88	
10284.87	7 x 4 1/2 eak Extreme Service Isolation Packer with 10K HTHP Element System #5	5.53	4.00	5.75	
10279.34	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.08	4.00	4.50	
10273.26	11 Joints 4 1/2, 11.6#, P-110 LTC Liner	478.68	4.00	4.50	
9794.58	7 x 4 1/2 Peak Selective Sand Frac Sleeve with 3" ID Seat (3 1/4" Ball Actuated) #5	2.92	3.06	5.88	
9791.66	4 Joints 4 1/2, 11.6#, P-110 LTC Liner	174.30	4.00	4.50	
9617.36	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.07	4.00	4.50	
9615.29	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	5.88	
9614.71	7 x 4 1/2 eak Extreme Service Isolation Packer with 10K HTHP Element System #6	5.53	4.00	5.75	
9609.18	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.08	4.00	4.50	
9603.10	7 Joints 4 1/2, 11.6#, P-110 LTC Liner	301.82	4.00	4.50	
9301.28	7 x 4 1/2 Peak Selective Sand Frac Sleeve with 3 1/4" ID Seat (3 1/2" Ball Actuated)	2.92	3.31	5.88	
9298.36	7 Joints 4 1/2, 11.6#, P-110 LTC Liner	302.47	4.00	4.50	
8995.89	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.07	4.00	4.50	
8993.82	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	5.88	
8993.24	7 x 4 1/2 eak Extreme Service Isolation Packer with 10K HTHP Element System #7	5.53	4.00	5.75	
8987.71	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.08	4.00	4.50	
8981.63	3 Joints 4 1/2, 11.6#, P-110 LTC Liner	128.93	4.00	4.50	
8852.70	4 1/2 x 2', 11.6#, P-110 LTC Liner sub	2.07	4.00	4.50	
8850.63	7 x 4 1/2 Peak Rotational Centralizer	0.58	4.00	5.88	
8850.05	7 x 4 1/2 Peak Hydro-Pak Anchor #1	4.28	4.00	5.88	
8845.77	4 1/2 x 6' 11.6# P-110, LTC Liner Sub	6.09	4.00	4.50	
8839.68	1 Joint 4 1/2, 11.6#, P-110 LTC Liner	43.63	4.00	4.50	
8796.65	7 x 4 1/2 Peak Selective Sand Frac Sleeve with 3 1/2" ID Seat (3 3/4" Ball Actuated)	2.92	3.56	5.88	
8793.73	4 1/2 LTC pin x 4 1/2 BTC cross-over, P-110	1.00	4.00	4.50	
8792.73	11 Joints 4 1/2, 11.6#, P-110 BTC Liner	477.44	4.00	4.50	
8315.29	4 1/2 BTC pin x 4 1/2 LTC box cross-over	1.18	4.00	4.50	
8314.11	4 1/2 LTC, 11.6#, P-110 double pin	1.39	4.00	4.50	
8312.72	7 x 4 Peak Extreme Service Retrievable Seal Bore Packer	5.48	4.00	5.93	
8307.24	7 x 3 1/2 Peak Extreme Service Hydraulic Dual Stack Setting Tool with Dual Seal Ass	5.12	3.50	5.88	
8302.12	3 1/2 Drill Pipe Sub with 3 1/2 IF Threads	12.25	2.74	3.50	
8289.87	87 Stands & Sinicle (262 Joints) 3 1/2 Drill Pipe with 3 1/2 IF Threads	8303.11	2.75	3.50	
-13.24	Stick Up	0.00	2.75	3.50	

Final BHA Placement					
WEIGHT OF TUBING STRING	55,000	TOTAL STRING LENGTH	12895.24		
PUSH / PULL TEST		STICK-UP OFF RIG FLOOR	13.24		
LINER STRING WEIGHT	4592.13	TUBING BOTTOM	12882.00		

\*\*\* CONFIDENTIAL \*\*\*  
**NOT TO BE DISCLOSED OUTSIDE**  
**\*\*Cimarex Energy Company\*\***

TOTAL MEASURED DEPTH @  
13,209 FT



**AUTHORIZATION FOR EXPENDITURE**

COMPANY ENTITY <b>Cimarex Energy Co.</b>			DATE PREPARED <b>December 30, 2008</b>		
REGION <b>Permian</b>	WELL NAME <b>Antietam 10</b>	WELL NO. <b>2H</b>	PROSPECT OR FIELD NAME <b>Lower Abo Horizontal</b>	PROPERTY NUMBER	DRILLING AFE NO.
LOCATION <b>SHL: SE/4 of SE/4 Sec 10, 15S-31E BHL: SW/4 of SW/4 Sec 10, 15S-31E</b>			COUNTY <b>Chaves</b>	STATE <b>New Mexico</b>	TYPE WELL OIL <input checked="" type="checkbox"/> EXPL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> PROD <input type="checkbox"/>
ORIGINAL ESTIMATE <input checked="" type="checkbox"/>	REVISED ESTIMATE	SUPPLEMENTAL ESTIMATE	EST. START DATE	EST. COMP. DATE	FORMATION <b>Lower Abo</b> EST. TO <b>13,250'</b>

**PROJECT DESCRIPTION:**

Drill and complete a Lower Abo horizontal well. No pilot hole. horiz TVD 8800'/MD 13250 (4500 VS)

<u>INTANGIBLES</u>	<u>DRY HOLE COST</u>	<u>AFTER CASING POINT</u>	<u>COMPLETED WELL COST</u>
Intangible Drilling Costs	\$1,870,190		\$1,870,190
Intangible Completion Costs		1,367,646	1,367,646
<b>TOTAL INTANGIBLE COSTS</b>	<b>1,870,190</b>	<b>1,367,646</b>	<b>3,237,836</b>
<u>TANGIBLES</u>			
Well Equipment	322,691	1,066,484	1,389,175
Lease Equipment		98,000	98,000
<b>TOTAL TANGIBLE WELL COST</b>	<b>322,691</b>	<b>1,164,484</b>	<b>1,487,175</b>
PLUG AND ABANDON COST	150,000	(150,000)	
<b>TOTAL WELL COST:</b>	<b>\$2,342,881</b>	<b>\$2,382,130</b>	<b>\$4,725,011</b>

**Comments on Well Costs:**

1. All tubulars, well or lease equipment is priced by COPAS and CEPS guidelines using the Historic Price Multiplier.

**WELL CONTROL INSURANCE:**

Unless otherwise indicated below, you, as a non-operating working interest owner, agree to be covered by Operator's well control insurance procured by Operator so long as Operator conducts operations hereunder and to pay your prorated share of the premiums therefore. If you elect to purchase your own well control insurance, you must provide a certificate of such insurance acceptable to Operator, as to form and limits, at the time this AFE is returned, if available, but in no event later than commencement of drilling operations. You agree that failure to provide the certificate of insurance, as provided herein, will result in your being covered by insurance procured by Operator.

\_\_\_\_\_ I elect to purchase my own well control insurance policy.

Well control insurance procured by Operator, provides, among other terms, for \$20,000,000 (100% W.I.) of Combined Single Limit coverage for well control and related redrilling and clean-up/pollution expense covering drilling (through completion) with a \$1,000,000 (100% W.I.) deductible.

**Comments on AFE**

The above costs are estimates only and anticipate trouble free operations without any foreseeable change in plans. The actual costs may exceed the estimated costs without affecting the authorization for expenditure herein granted. By approval of this AFE, the working interest owner agrees to pay its proportionate share of actual legal, curative, regulatory and well costs under term of the joint operating agreement, regulatory order or other applicable agreement covering this well.

178.82

**CIMAREX ENERGY CO. APPROVAL**

PREPARED BY Mark Audas Drilling/Completions Engineer - PB	DRILLING AND COMPLETION MANAGER Doug Park, Mgr Drilling/Completion Operations Permian Region	REGIONAL MANAGER Roger Alexander, Regional Manager Permian Basin
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**JOINT INTEREST APPROVAL**

COMPANY	BY	DATE
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**AUTHORIZATION FOR EXPENDITURE**

COMPANY ENTITY <b>Cimarex Energy Co.</b>					DATE PREPARED <b>December 30, 2008</b>
REGION <b>Permian</b>	WELL NAME <b>Antietam 10</b>	WELL NO <b>1H</b>	PROSPECT OR FIELD NAME <b>Lower Abo Horizontal</b>	PROPERTY NUMBER	DRILLING AFE NO.
LOCATION <b>SHL: NE/4 of SE/4 Sec 10, 15S-31E BHL: NW/4 of SW/4 Sec 10, 15S-31E</b>			COUNTY <b>Chaves</b>	STATE <b>New Mexico</b>	TYPE WELL OIL <input checked="" type="checkbox"/> EXPL <input checked="" type="checkbox"/> GAS <input type="checkbox"/> PROD <input type="checkbox"/>
ORIGINAL ESTIMATE	<u>          x          </u>	EST. START DATE	EST. COMP. DATE	FORMATION <b>Lower Abo</b>	EST. TD <b>13,250'</b>
REVISED ESTIMATE	<u>                          </u>				
SUPPLEMENTAL ESTIMATE	<u>                          </u>				

**PROJECT DESCRIPTION:**

**Drill and complete a Lower Abo horizontal well. No pilot hole 9250' horiz TVD 8800'/MD 13250 (4500 VS)**

<u>INTANGIBLES</u>	<u>DRY HOLE COST</u>	<u>AFTER CASING POINT</u>	<u>COMPLETED WELL COST</u>
Intangible Drilling Costs	<u>\$2,200,312</u>		<u>\$2,200,312</u>
Intangible Completion Costs		<u>1,350,636</u>	<u>1,350,636</u>
<b>TOTAL INTANGIBLE COSTS</b>	<u>2,200,312</u>	<u>1,350,636</u>	<u>3,550,948</u>
<u>TANGIBLES</u>			
Well Equipment	<u>322,691</u>	<u>1,066,484</u>	<u>1,389,175</u>
Lease Equipment		<u>98,000</u>	<u>98,000</u>
<b>TOTAL TANGIBLE WELL COST</b>	<u>322,691</u>	<u>1,164,484</u>	<u>1,487,175</u>
PLUG AND ABANDON COST	<u>150,000</u>	<u>(150,000)</u>	
<b>TOTAL WELL COST:</b>	<u>\$2,673,003</u>	<u>\$2,365,120</u>	<u>\$5,038,123</u>

**Comments on Well Costs:**

- All tubulars, well or lease equipment is priced by COPAS and CEPS guidelines using the Historic Price Multiplier.

**WELL CONTROL INSURANCE:**

Unless otherwise indicated below, you, as a non-operating working interest owner, agree to be covered by Operator's well control insurance procured by Operator so long as Operator conducts operations hereunder and to pay your prorated share of the premiums therefore. If you elect to purchase your own well control insurance, you must provide a certificate of such insurance acceptable to Operator, as to form and limits, at the time this AFE is returned, if available, but in no event later than commencement of drilling operations. You agree that failure to provide the certificate of insurance, as provided herein, will result in your being covered by insurance procured by Operator.

                   I elect to purchase my own well control insurance policy.

Well control insurance procured by Operator, provides, among other terms, for \$20,000,000 (100% W.I.) of Combined Single Limit coverage for well control and related redrilling and clean-up/pollution expense covering drilling (through completion) with a \$1,000,000 (100% W.I.) deductible.

**Comments on AFE**

The above costs are estimates only and anticipate trouble free operations without any foreseeable change in plans. The actual costs may exceed the estimated costs without affecting the authorization for expenditure herein granted. By approval of this AFE, the working interest owner agrees to pay its proportionate share of actual legal, curative, regulatory and well costs under term of the joint operating agreement, regulatory order or other applicable agreement covering this well.

201.74

CIMAREX ENERGY CO. APPROVAL		
PREPARED BY Mark Audas Drilling/Completions Engineer - PB	DRILLING AND COMPLETION MANAGER Doug Park, Mgr Drilling/Completion Operations Permian Region	REGIONAL MANAGER Roger Alexander, Regional Manager Permian Basin

JOINT INTEREST APPROVAL		
COMPANY	BY	DATE



## Enterprise & Yorktown Wells (Days vs. Depth)

