

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 & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 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

¹ API Number 30-025-32818		² Pool Code 50461	³ Pool Name Quail Ridge; Bone Spring, South
⁴ Property Code	⁵ Property Name Mallon 34 Federal		⁶ Well Number 016
⁷ OGRID No. 162683	⁸ Operator Name CIMAREX ENERGY CO. OF COLORADO		⁹ Elevation 3678' GL

¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	34	19S	34E		1980	South	660	West	Lea

¹¹ 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
D	36	19S	32E		1980	South	330	East	Lea

¹² Dedicated Acres	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
160			

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.

16	¹⁷ OPERATOR CERTIFICATION <i>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 released mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this 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> <i>Zeno Farris</i> 2/3/2009 Signature Date Zeno Farris Printed Name
	¹⁸ SURVEYOR CERTIFICATION <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i> Date of Survey Signature and Seal of Professional Surveyor
	Certificate Number



Cimarex Energy Co. of Colorado

Location: Lea County, NM
Field (Mallon) Sec 34, T19S, R34E
Facility: Mallon 34 Federal #16

Slot: No. 16H
Well: No. 16H SHL
Wellbore: No. 16H PWB



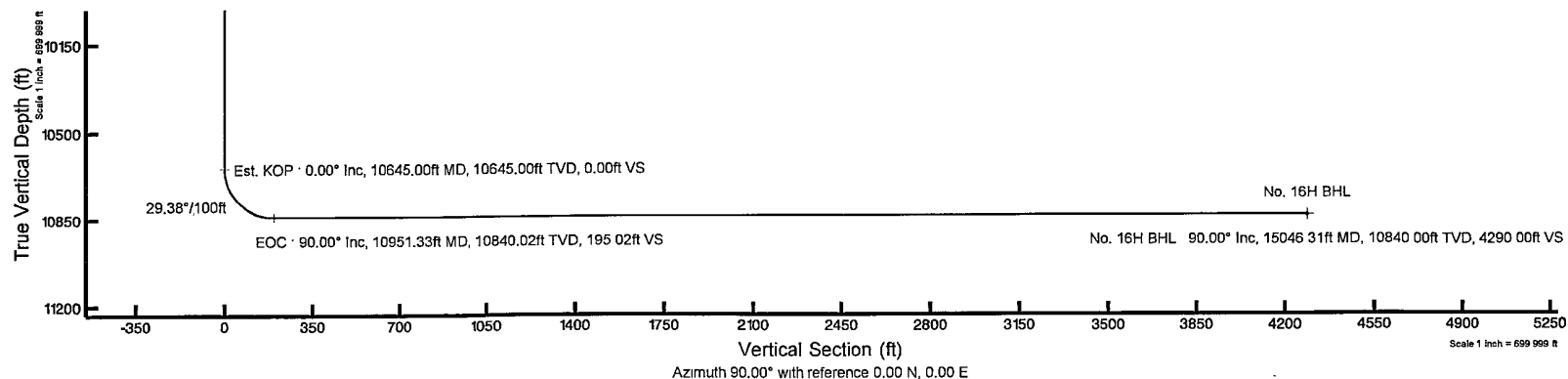
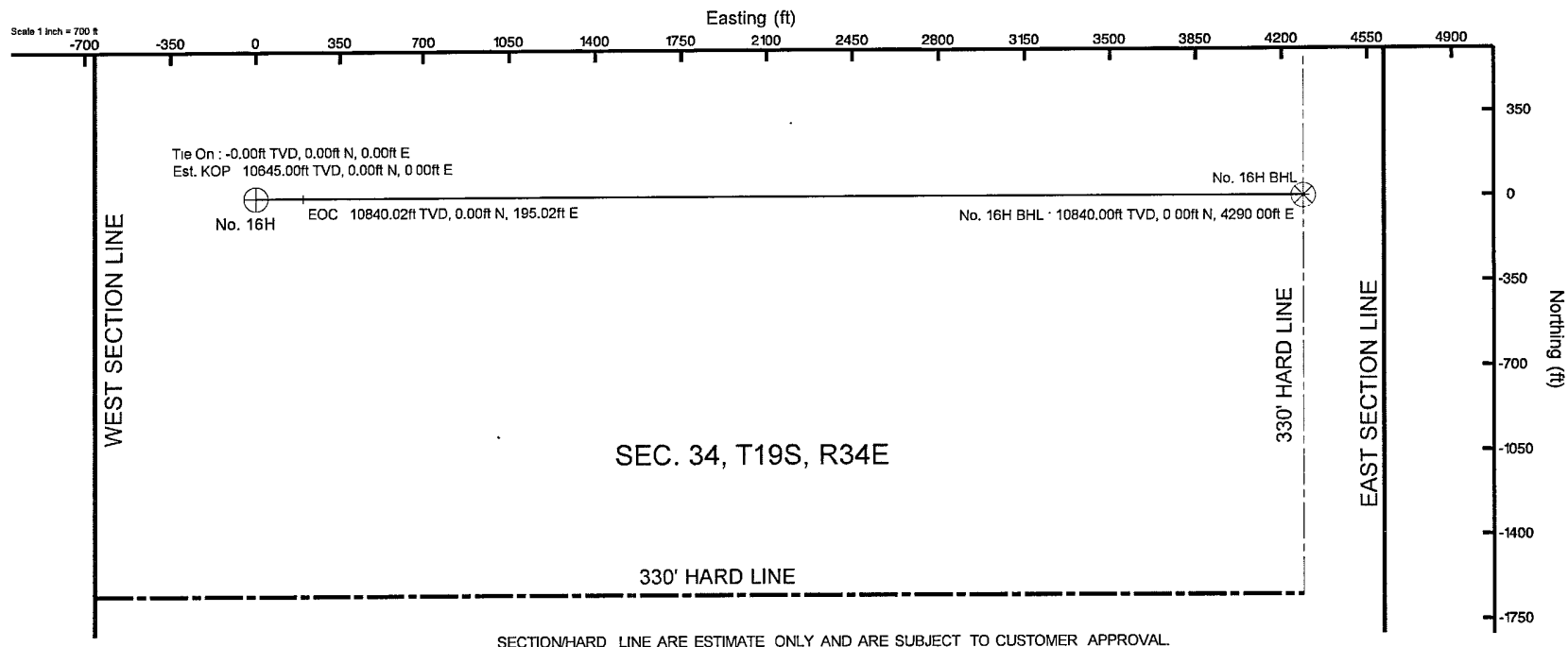
INTEQ

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	90.000	0.00	0.00	0.00	0.00	0.00
Est. KOP	10645.00	0.000	90.000	10645.00	0.00	0.00	0.00	0.00
EOC	10951.33	90.000	90.000	10840.02	0.00	195.02	29.38	195.02
No. 16H BHL	15046.31	90.000	90.000	10840.00	0.00	4290.00	0.00	4290.00

Plot reference wellpath vs Preliminary Plan

True vertical depths are referenced to Rig on No. 16H (RT)	Grid System: NAD83 / TM New Mexico State Planes: Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 16H (RT)	North Reference: Grid north
Rig on No. 16H (RT) to Mean Sea Level: 3695.5 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: Mallon 34 Federal #16): -3678 feet	Depths are in feet
Coordinates are in feet referenced to Facility Center	Created by: gomeocr on 1/9/2009





Planned Wellpath Report

Preliminary Plan
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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co. of Colorado	Slot	No. 16H
Area	Lea County, NM	Well	No. 16H SHL
Field	(Mallon) Sec 34, T19S, R34E	Wellbore	No. 16H PWB
Facility	Mallon 34 Federal #16		

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	Gomeoscr
Scale	1.00024	Report Generated	1/9/2009 at 8:40:03 AM
Convergence at slot	n/a	Database/Source file	WA_Midland/No._16H_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	0.00	0.00	30°59'18.404"N	106°03'38.987"W
Facility Reference Pt			0.00	0.00	30°59'18.404"N	106°03'38.987"W
Field Reference Pt			0.00	0.00	30°59'18.404"N	106°03'38.987"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 16H (RT) to Facility Vertical Datum	17.50ft
Horizontal Reference Pt	Facility Center	Rig on No. 16H (RT) to Mean Sea Level	3695.50ft
Vertical Reference Pt	Rig on No. 16H (RT)	Facility Vertical Datum to Mud Line (Facility)	0.00ft
MD Reference Pt	Rig on No. 16H (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	90.00°



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REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co. of Colorado	Slot	No. 16H
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Field	(Mallon) Sec 34, T19S, R34E	Wellbore	No. 16H PWB
Facility	Mallon 34 Federal #16		

WELLPATH DATA (53 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
0.00	0.000	90.000	0.00	0.00	0.00	0.00	0.00	Tie On
9756.00†	0.000	90.000	9756.00	0.00	0.00	0.00	0.00	2nd Bone Spring Carbonate
9948.00†	0.000	90.000	9948.00	0.00	0.00	0.00	0.00	2nd Bone Spring Sand
10430.00†	0.000	90.000	10430.00	0.00	0.00	0.00	0.00	3rd Bone Spring Coarbonate
10630.00†	0.000	90.000	10630.00	0.00	0.00	0.00	0.00	3rd Bone Spring Sand
10645.00	0.000	90.000	10645.00	0.00	0.00	0.00	0.00	Est KOP
10745.00†	29.380	90.000	10740.67	25.08	0.00	25.08	29.38	
10845.00†	58.760	90.000	10811.74	93.88	0.00	93.88	29.38	
10945.00†	88.140	90.000	10839.91	188.69	0.00	188.69	29.38	
10948.81†	89.260	90.000	10840.00	192.50	0.00	192.50	29.38	3rd Bone Spring "C" Sand
10951.33	90.000	90.000	10840.02	195.02	0.00	195.02	29.38	EOC; 3rd Bone Spring "C" Sand
11045.00†	90.000	90.000	10840.02	288.69	0.00	288.69	0.00	
11145.00†	90.000	90.000	10840.02	388.69	0.00	388.69	0.00	
11245.00†	90.000	90.000	10840.02	488.69	0.00	488.69	0.00	
11345.00†	90.000	90.000	10840.01	588.69	0.00	588.69	0.00	
11445.00†	90.000	90.000	10840.01	688.69	0.00	688.69	0.00	
11545.00†	90.000	90.000	10840.01	788.69	0.00	788.69	0.00	
11645.00†	90.000	90.000	10840.01	888.69	0.00	888.69	0.00	
11745.00†	90.000	90.000	10840.01	988.69	0.00	988.69	0.00	
11845.00†	90.000	90.000	10840.01	1088.69	0.00	1088.69	0.00	
11945.00†	90.000	90.000	10840.01	1188.69	0.00	1188.69	0.00	
12045.00†	90.000	90.000	10840.01	1288.69	0.00	1288.69	0.00	
12145.00†	90.000	90.000	10840.01	1388.69	0.00	1388.69	0.00	
12245.00†	90.000	90.000	10840.01	1488.69	0.00	1488.69	0.00	
12345.00†	90.000	90.000	10840.01	1588.69	0.00	1588.69	0.00	
12445.00†	90.000	90.000	10840.01	1688.69	0.00	1688.69	0.00	
12545.00†	90.000	90.000	10840.01	1788.69	0.00	1788.69	0.00	
12645.00†	90.000	90.000	10840.01	1888.69	0.00	1888.69	0.00	
12745.00†	90.000	90.000	10840.01	1988.69	0.00	1988.69	0.00	
12845.00†	90.000	90.000	10840.01	2088.69	0.00	2088.69	0.00	
12945.00†	90.000	90.000	10840.01	2188.69	0.00	2188.69	0.00	
13045.00†	90.000	90.000	10840.01	2288.69	0.00	2288.69	0.00	
13145.00†	90.000	90.000	10840.01	2388.69	0.00	2388.69	0.00	
13245.00†	90.000	90.000	10840.01	2488.69	0.00	2488.69	0.00	
13345.00†	90.000	90.000	10840.01	2588.69	0.00	2588.69	0.00	
13445.00†	90.000	90.000	10840.01	2688.69	0.00	2688.69	0.00	
13545.00†	90.000	90.000	10840.01	2788.69	0.00	2788.69	0.00	
13645.00†	90.000	90.000	10840.01	2888.69	0.00	2888.69	0.00	
13745.00†	90.000	90.000	10840.01	2988.69	0.00	2988.69	0.00	
13845.00†	90.000	90.000	10840.00	3088.69	0.00	3088.69	0.00	
13945.00†	90.000	90.000	10840.00	3188.69	0.00	3188.69	0.00	
14045.00†	90.000	90.000	10840.00	3288.69	0.00	3288.69	0.00	
14145.00†	90.000	90.000	10840.00	3388.69	0.00	3388.69	0.00	
14245.00†	90.000	90.000	10840.00	3488.69	0.00	3488.69	0.00	
14345.00†	90.000	90.000	10840.00	3588.69	0.00	3588.69	0.00	



Planned Wellpath Report

Preliminary Plan

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INTEQ

REFERENCE WELLPATH IDENTIFICATION

Operator	Cimarex Energy Co. of Colorado	Slot	No. 16H
Area	Lea County, NM	Well	No. 16H SHL
Field	(Mallon) Sec 34, T19S, R34E	Wellbore	No. 16H PWB
Facility	Mallon 34 Federal #16		

WELLPATH DATA (53 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	DLS [°/100ft]	Comments
14445.00†	90.000	90.000	10840.00	3688.69	0.00	3688.69	0.00	
14545.00†	90.000	90.000	10840.00	3788.69	0.00	3788.69	0.00	
14645.00†	90.000	90.000	10840.00	3888.69	0.00	3888.69	0.00	
14745.00†	90.000	90.000	10840.00	3988.69	0.00	3988.69	0.00	
14845.00†	90.000	90.000	10840.00	4088.69	0.00	4088.69	0.00	
14945.00†	90.000	90.000	10840.00	4188.69	0.00	4188.69	0.00	
15045.00†	90.000	90.000	10840.00	4288.69	0.00	4288.69	0.00	
15046.31	90.000	90.000	10840.00 ¹	4290.00	0.00	4290.00	0.00	No. 16H BHL

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 16H BHL	15046.31	10840.00	0.00	4290.00	4291.04	0.00	30°59'19.060"N	106°02'49.710"W	point

**Mallon 34 Federal No. 16
30-025-32818
Cimarex Energy Co. of Colorado
March 5, 2009
Conditions of Approval**

- 1. Test BOP/BOPE equipment.**
- 2. Pressure test squeezed perforations prior to drilling shoe plug.**
- 3. No mud weight provided, a 9.0 ppg mud weight used for calculations.**
- 4. Liner to be 2-7/8" 6.5# L-80 per telecom with operator 3/6/2009. May have 3-1/2" 9.3# P-110 at top of bend/tie-back to 5-1/2" casing.**
- 5. Submit subsequent sundry detailing work performed and current well test data.**

WWI 030509