

OCD Artesia

Form 3160-3
(June 2015)

FORM APPROVED
OMB No. 1004-0137
Expires January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

HIGH CAVE KARST
OIL CONSERVATION
ARTESIA DISTRICT

APPLICATION FOR PERMIT TO DRILL OR REENTER

MAR 27 2017

1a. Type of Work <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		RECEIVED	7. If Unit or CA Agreement, Name and No.
1b. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other			8. Lease Name and Well No. 314218 Bonnie 35 Federal Com #2H
1c. Type of Completion <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone			9. API Well No. 30-015-44111
2. Name of Operator Cimarex Energy Co.		10. Field and Pool, or Exploratory Wildcat Wolfcamp Purple Sage	
3a. Address 600 N. Marienfield St. Ste. 600 Midland Tx 79071		3b. Phone No. (include area code) 432-571-7800	11. Sec., T. R. M. or Blk. and Survey or Area 48220 35, 25S, 26E
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At Surface 200 FSL & 1010 FEL; Sec. 35-25S-26E At proposed prod. Zone 330 FNL & 660 FEL; Sec 26-25S-26E Wolfcamp		12. County or Parish Eddy	
14. Distance in miles and direction from nearest town or post office* 17.1 miles Northeasterly		13. State NM	
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line if any) 200'	16. No of acres in lease NMNM026870=640.00 acres NMNM094839=1480.00 acres Fee=240.00 acres	17. Spacing Unit dedicated to this well 320.00	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 50' to the Bonnie 35 Fed #1 well.	19. Proposed Depth Pilot Hole TD: N/A 19,428 MD 9,570 TVD	20. BLM/BIA Bond No. in file NMB001187; NMB001188	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3341 GR	22. Approximate date work will start* 5/23/16	23. Estimated duration 35 days	

24. Attachments

- The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)
- | | |
|---|---|
| 1. Well plat certified by a registered surveyor | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan | 5. Operator Certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature <i>Amithy Crawford</i>	Name (Printed/Typed) Amithy Crawford	Date 1/5/16
Regulatory Compliance		

Approved By (Signature) /s/Cody Layton	Name (Printed/Typed) CARLSBAD FIELD OFFICE	Date MAR 20 2017
Title FIELD MANAGER	Office	

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

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.

Carlsbad Controlled Water Basin

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

RUP
3-28-2017

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

ARTESIA DISTRICT

Form C-102
MAR 27 2017 Revised August 1, 2011
Submit one copy to appropriate District Office
RECEIVED AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30015-44111	² Pool Code 98220	³ Pool Name Purple SAGE Wildcat, Wolfcamp GAS.
⁴ Property Code 314218	⁵ Property Name BONNIE 35 FEDERAL COM	
⁷ OGRID No. 215099	⁸ Operator Name CIMAREX ENERGY CO.	⁶ Well Number #2H
		⁹ Elevation 3341.2'

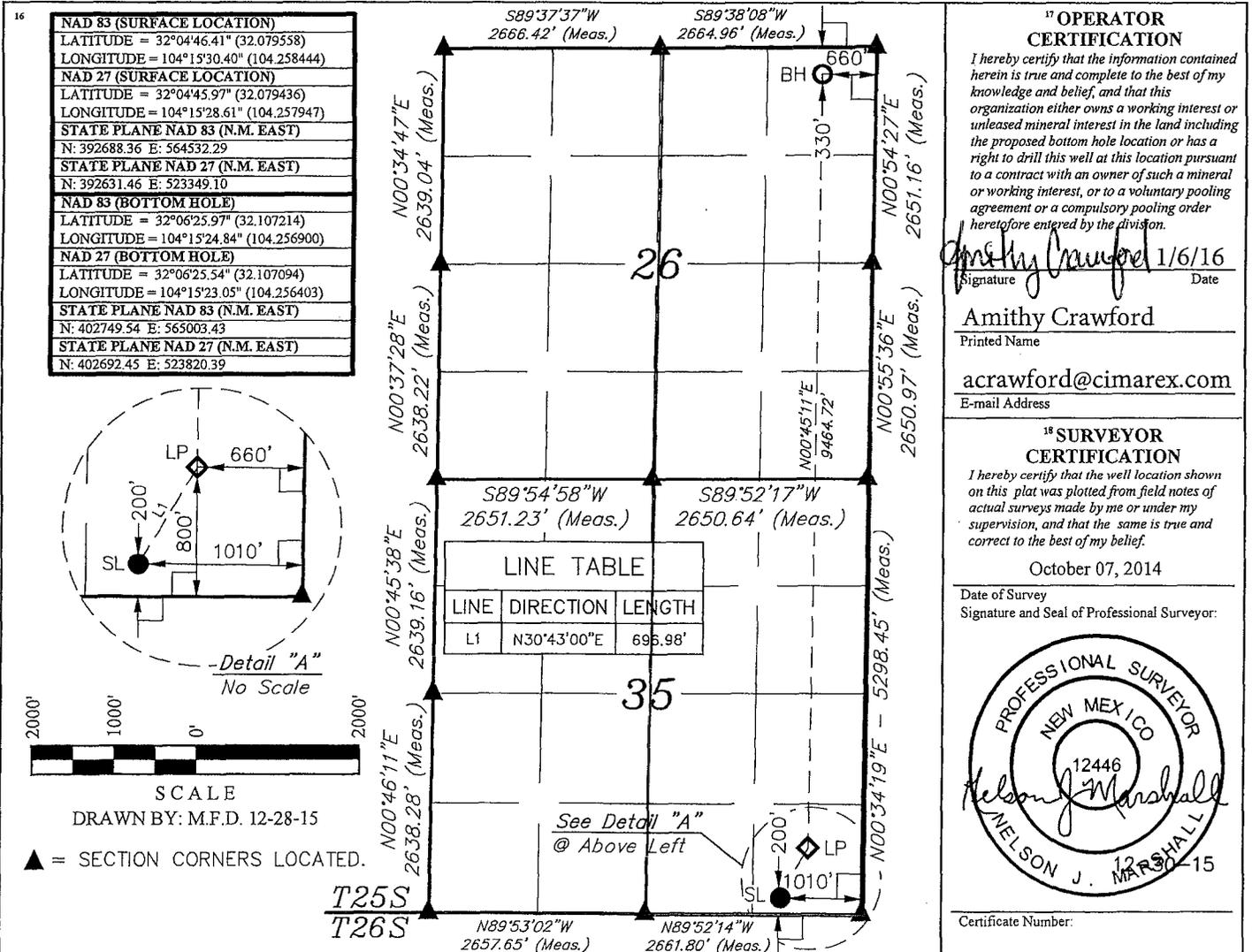
¹⁰ Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	35	25S	26E		200	SOUTH	1010	EAST	EDDY

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
A	26	25S	26E		330	NORTH	660	EAST	EDDY
¹² Dedicated Acres 640		¹³ Joint or Infill		¹⁴ Consolidation Code		¹⁵ Order No.			

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 Statement

Bonnie 35 Federal Com #2H

Cimarex Energy Co.

UL: P, Sec. 35, 25S, 26E

Eddy Co., NM

NM OIL CONSERVATION
ARTESIA DISTRICT

MAR 27 2017

RECEIVED

Operator's Representative

Cimarex Energy Co. of Colorado

600 N. Marienfeld St., Ste. 600

Midland, TX 79701

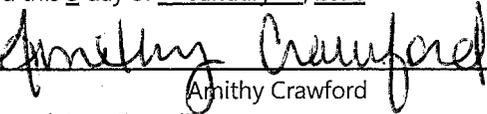
Office Phone: (432) 571-7800

CERTIFICATION: I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

I am responsible under the terms and conditions of the lease to conduct lease operations in conjunction with the application. Bond coverage pursuant to 43, 25 or 36 CFR for lease activities is being provided by Cimarex Energy Co. under their (Lease, Statewide, Nationwide, Unit or Permit) Bond, BLM/BIA/FS Bond No. NMB001187; NMB001188.

Executed this 5 day of January, 2016

NAME:


Armithy Crawford

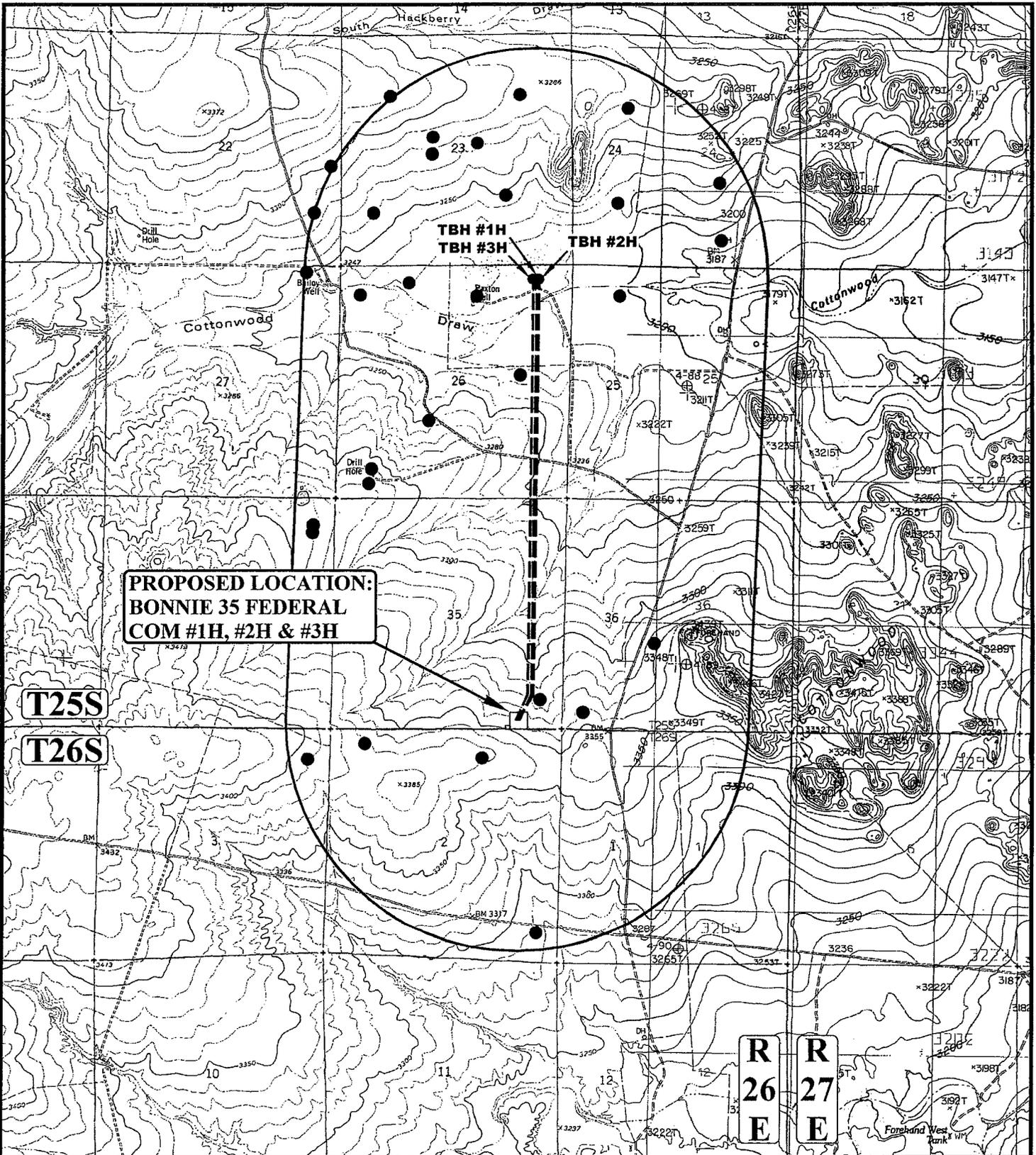
TITLE: Regulatory Compliance

ADDRESS: 600 N. Marienfeld St. Ste. 600 Midland Tx 79071

TELEPHONE: 432-571-7800

EMAIL: acrawford@cimarex.com

Field Representative: Same as above



LEGEND:

- EXISTING WELLS

CIMAREX ENERGY CO.

**BONNIE 35 FEDERAL COM #1H, #2H & #3H
SECTION 35, T25S, R26E, N.M.P.M.
SE 1/4 SE 1/4**

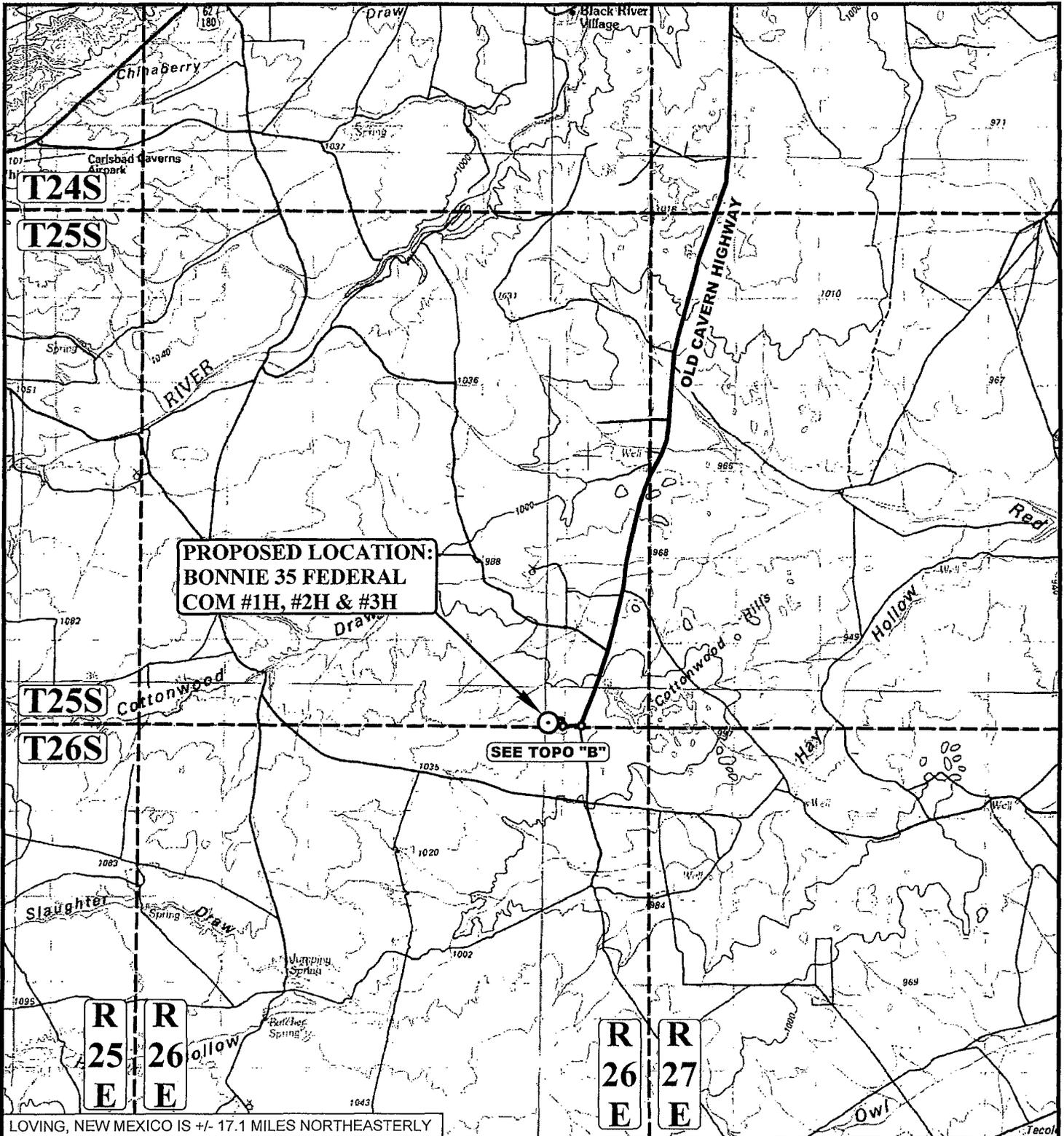


DRAWN BY: N.W.	DATE DRAWN: 10-31-14
SCALE: 1" = 3000'	REVISED: 12-28-15 M.F.D.

ONE MILE RADIUS PLAT EXHIBIT A



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



**PROPOSED LOCATION:
 BONNIE 35 FEDERAL
 COM #1H, #2H & #3H**

SEE TOPO "B"

LOVING, NEW MEXICO IS +/- 17.1 MILES NORTHEASTERLY

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:

⊙ PROPOSED LOCATION

CIMAREX ENERGY CO.

**BONNIE 35 FEDERAL COM #1H, #2H & #3H
 SECTION 35, T25S, R26E, N.M.P.M.
 SE 1/4 SE 1/4**

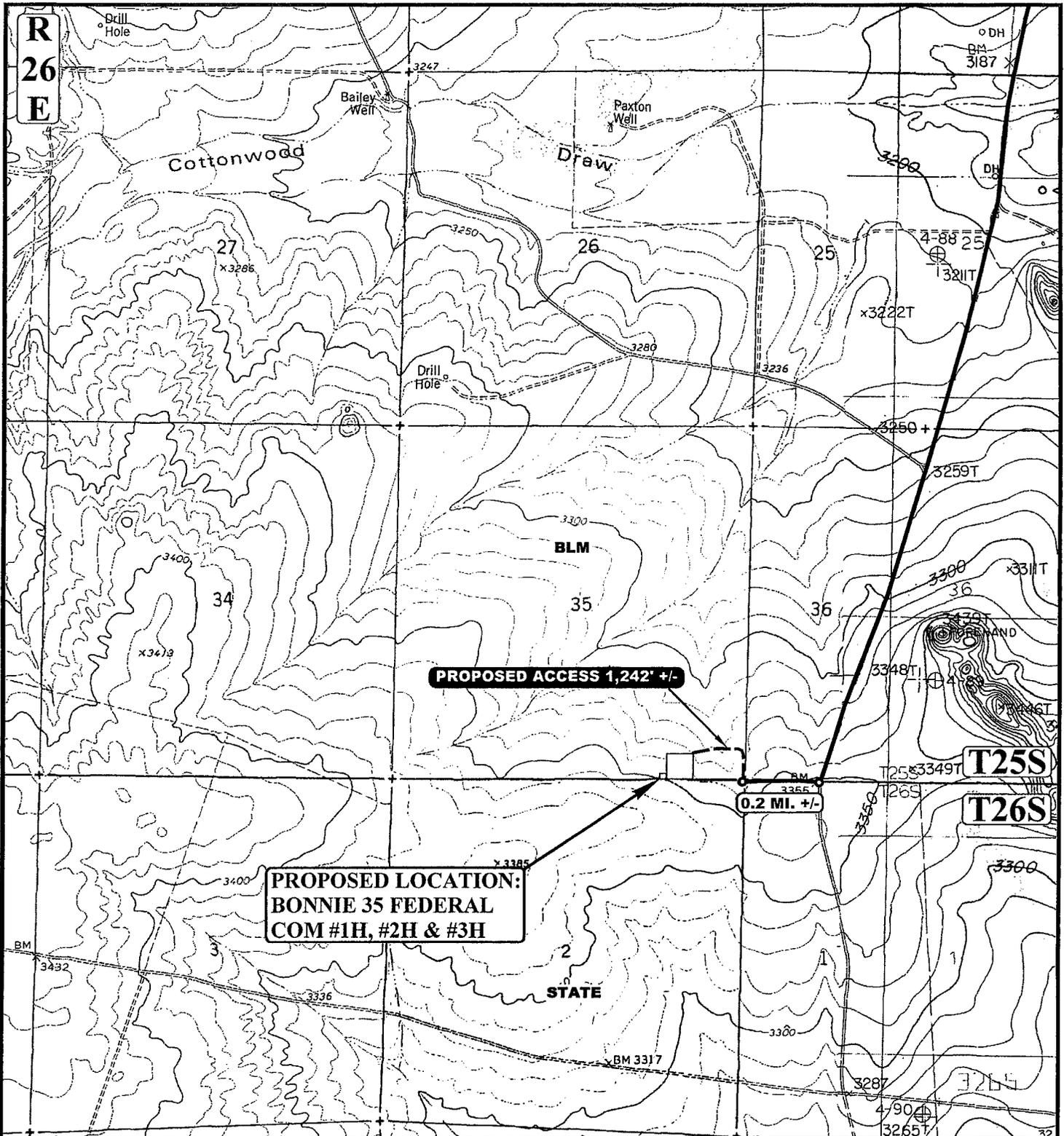


DRAWN BY: N.W.	DATE DRAWN: 10-31-14
SCALE: 1:100,000	REVISED: 12-17-14 T.E.



UELS, LLC
 Corporate Office * 85 South 200 East
 Vernal, UT 84078 * (435) 789-1017

PUBLIC ACCESS ROAD MAP EXHIBIT B



NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:
 ——— EXISTING ROAD
 - - - - - PROPOSED ROAD

CIMAREX ENERGY CO.

BONNIE 35 FEDERAL COM #1H, #2H & #3H
 SECTION 35, T25S, R26E, N.M.P.M.
 SE 1/4 SE 1/4

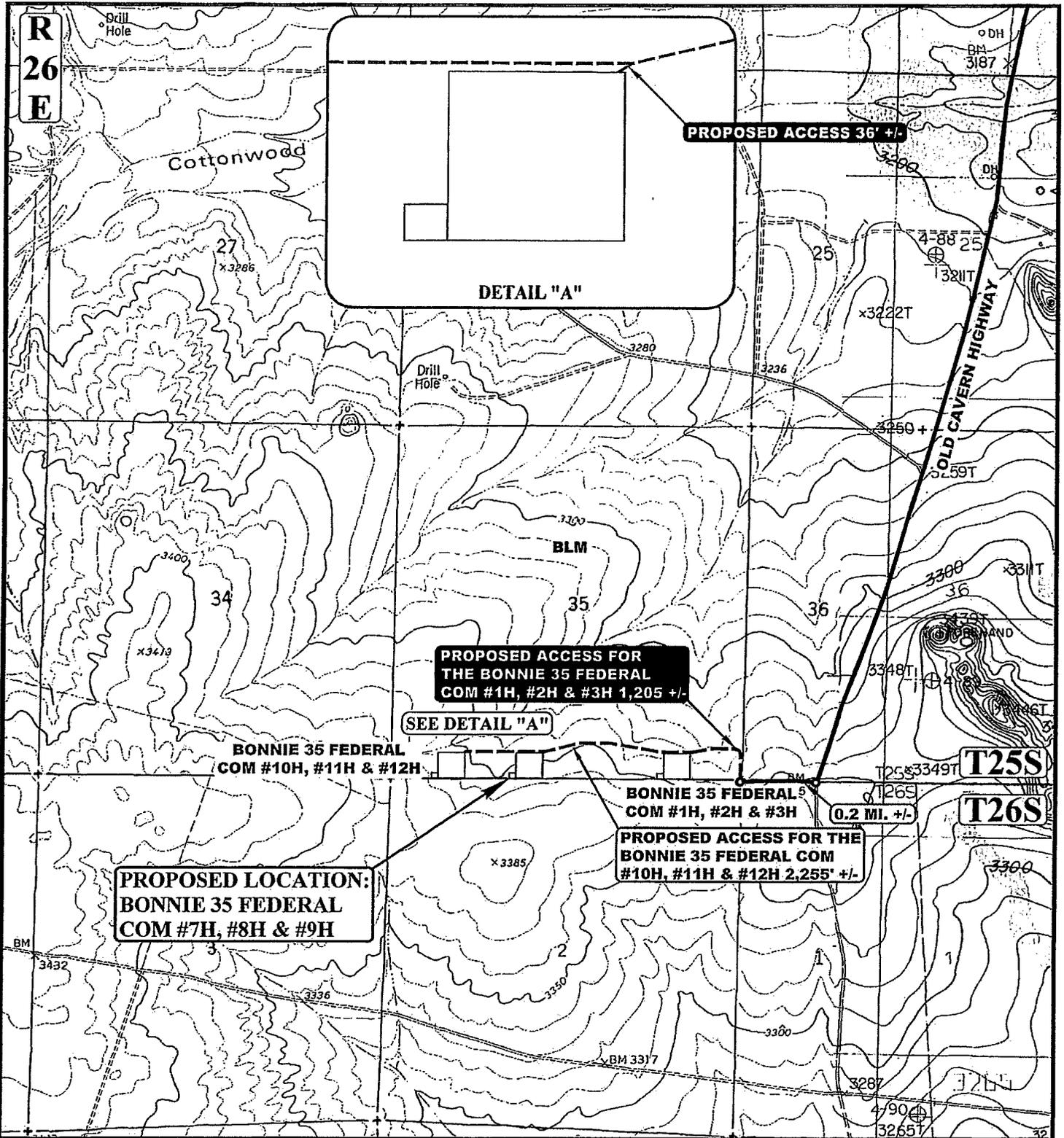
DRAWN BY: N.W.	DATE DRAWN: 10-31-14
SCALE: 1" = 2000'	REVISED: 00-00-00

ACCESS ROAD MAP EXHIBIT C-1



UELS, LLC
 Corporate Office * 85 South 200 East
 Vernal, UT 84078 * (435) 789-1017





NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:

	EXISTING ROAD		PROPOSED ROAD
	PROPOSED ROAD (SERVICING OTHER WELLS)		
	PROPOSED ROAD (SERVICING OTHER WELLS)		

CIMAREX ENERGY CO.

**BONNIE 35 FEDERAL COM #7H, #8H & #9H
SECTION 35, T25S, R26E, N.M.P.M.
SE 1/4 SW 1/4**

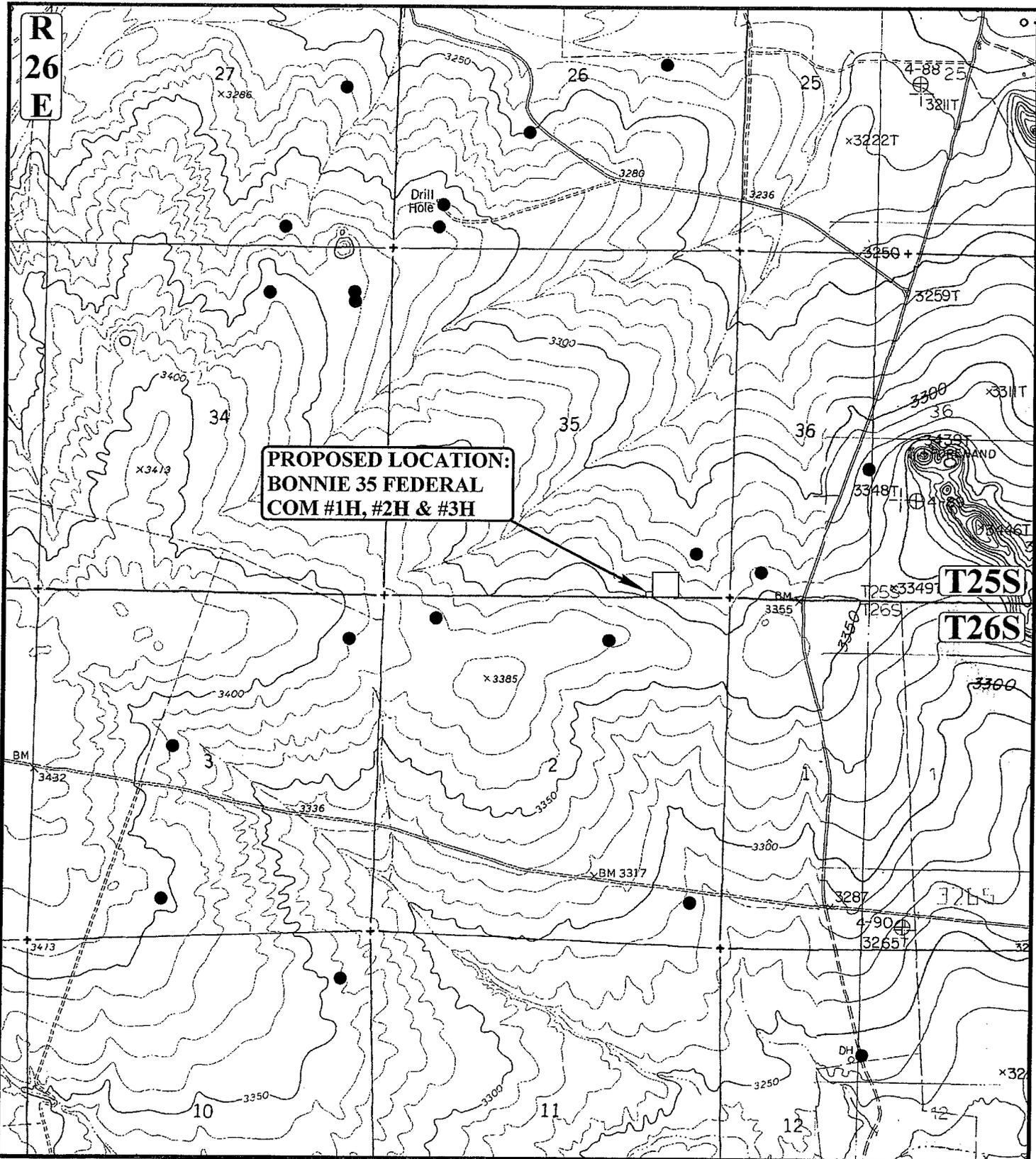
DRAWN BY: N.W.	DATE DRAWN: 10-31-14
SCALE: 1" = 2000'	REVISED: 00-00-00

ACCESS ROAD MAP

EXHIBIT C-1



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



**PROPOSED LOCATION:
 BONNIE 35 FEDERAL
 COM #1H, #2H & #3H**

LEGEND:

- EXISTING WELLS

CIMAREX ENERGY CO.

**BONNIE 35 FEDERAL COM #1H, #2H & #3H
 SECTION 35, T25S, R26E, N.M.P.M.
 SE 1/4 SE 1/4**

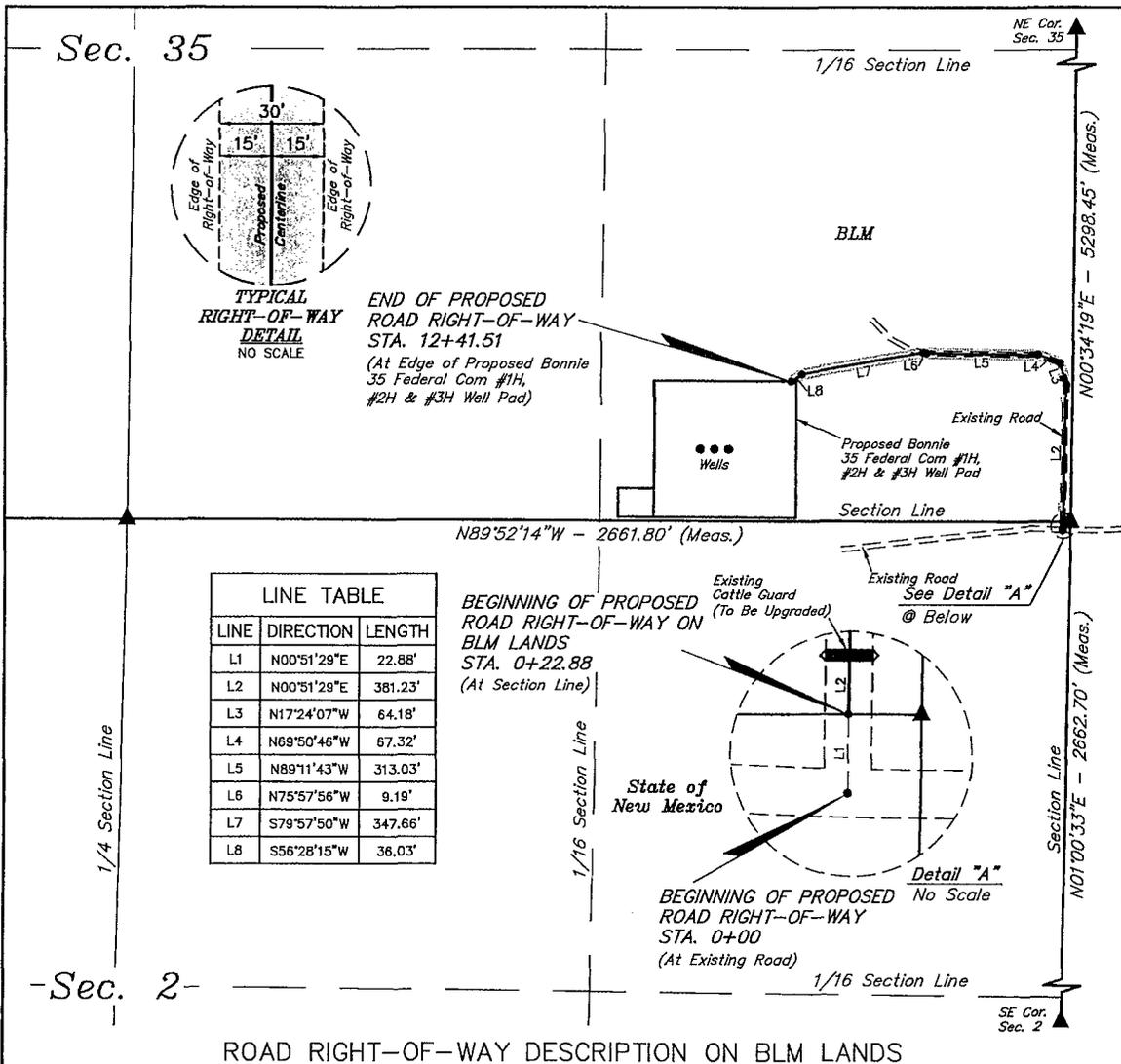


DRAWN BY: N.W.	DATE DRAWN: 10-31-14
SCALE: 1" = 2000'	REVISED: 00-00-00

USGS TOPOGRAPHIC MAP EXHIBIT C



UELS, LLC
 Corporate Office * 85 South 200 East
 Vernal, UT 84078 * (435) 789-1017



LINE TABLE

LINE	DIRECTION	LENGTH
L1	N00°51'29"E	22.88'
L2	N00°51'29"E	381.23'
L3	N17°24'07"W	64.18'
L4	N69°50'46"W	67.32'
L5	N89°11'43"W	313.03'
L6	N75°57'56"W	9.19'
L7	S79°57'50"W	347.66'
L8	S56°28'15"W	36.03'

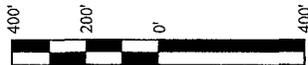
ROAD RIGHT-OF-WAY DESCRIPTION ON BLM LANDS

A 30' WIDE RIGHT-OF-WAY 15' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT ON THE SOUTH LINE OF THE SE 1/4 SE 1/4 OF SECTION 35, T25S, R26E, N.M.P.M., WHICH BEARS N89°52'14"W 21.64' FROM THE SOUTHEAST CORNER OF SAID SECTION 35, THENCE N00°51'29"E 381.23'; THENCE N17°24'07"W 64.18'; THENCE N69°50'46"W 67.32'; THENCE N89°11'43"W 313.03'; THENCE N75°57'56"W 9.19'; THENCE S79°57'50"W 347.66'; THENCE S56°28'15"W 36.03' TO A POINT IN THE SE 1/4 SE 1/4 OF SAID SECTION 35, WHICH BEARS N63°41'43"W 884.15' FROM THE SOUTHEAST CORNER OF SAID SECTION 35. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A G.P.S. OBSERVATION. CONTAINS 0.839 ACRES MORE OR LESS.

BEGINNING OF ROAD ON BLM LANDS STA. 0+22.88 BEARS N89°52'14"W 21.64' FROM THE SOUTHEAST CORNER OF SECTION 35, T25S, R26E, N.M.P.M.

END OF ROAD STA. 12+41.51 BEARS N63°41'43"W 884.15' FROM THE SOUTHEAST CORNER OF SECTION 35, T25S, R26E, N.M.P.M.



RIGHT-OF-WAY LENGTHS			
PROPERTY OWNER	FEET	ACRES	RODS
BLM SE 1/4 SEC. 35	1,218.63	0.839	73.86

▲ = SECTION CORNERS LOCATED.

CERTIFICATE OF PROFESSIONAL SURVEYOR

THIS IS TO CERTIFY THAT THE ABOVE PLAN WAS PREPARED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

12446

Nelson Marshall

REGISTERED LAND SURVEYOR
REGISTRATION NO. 12446
STATE OF NEW MEXICO

11-04-14

NOTES:
• The maximum grade of existing ground for the proposed access road is ±4.1%.

CIMAREX ENERGY CO.

**BONNIE 35 FEDERAL COM #1H, #2H & #3H
SECTION 35, T25S, R26E, N.M.P.M.
EDDY COUNTY, NEW MEXICO**

DRAWN BY: S.F.	DATE DRAWN: 10-29-14
SCALE: 1" = 400'	REVISED: 00-00-00

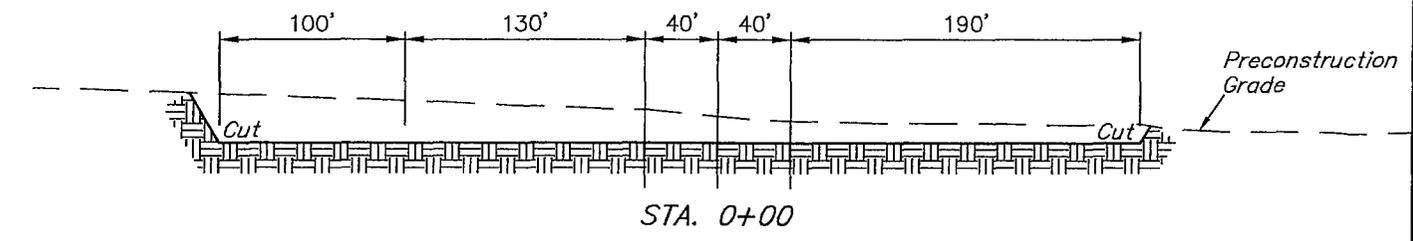
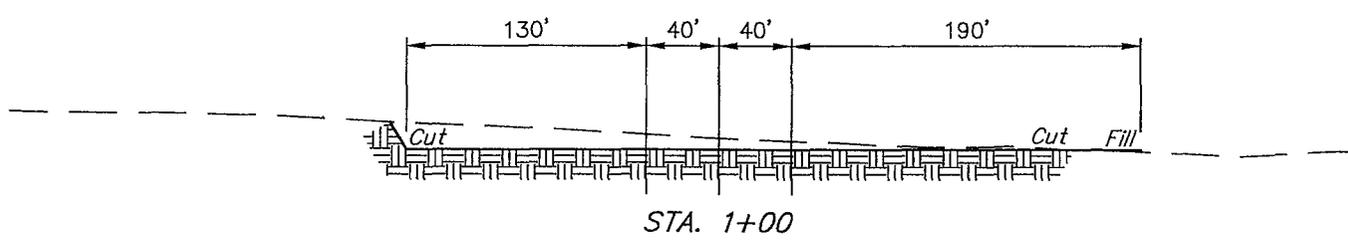
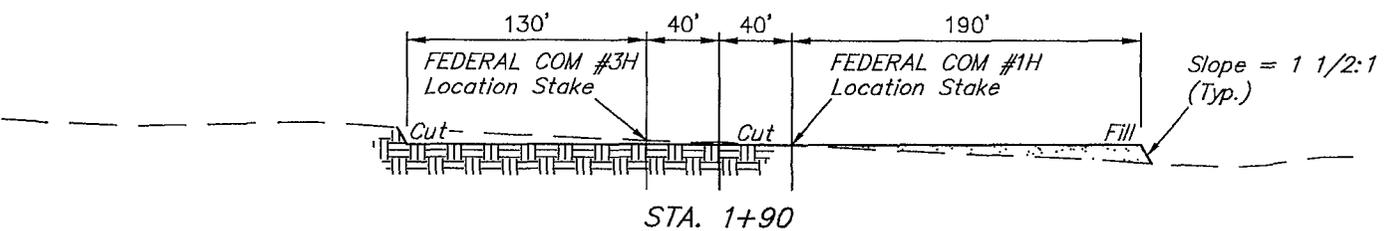
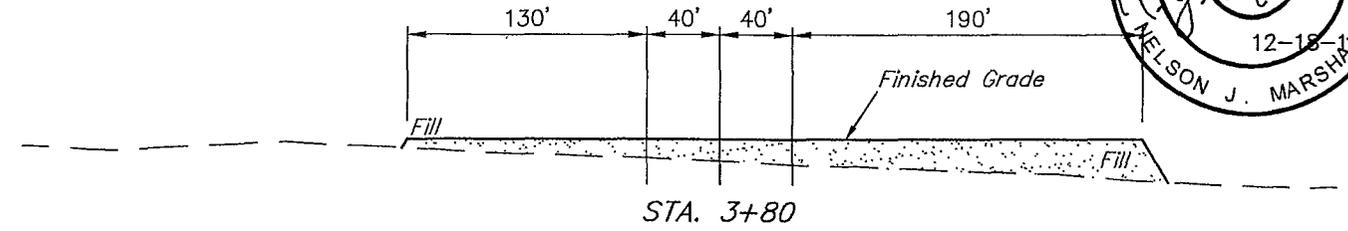
ACCESS ROAD R-O-W EXHIBIT C-2



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



1" = 40'
 X-Section Scale
 1" = 100'



APPROXIMATE EARTHWORK QUANTITIES	
(4") TOPSOIL STRIPPING	2,160 Cu. Yds.
REMAINING LOCATION	10,850 Cu. Yds.
TOTAL CUT	13,010 Cu. Yds.
FILL	10,850 Cu. Yds.
EXCESS MATERIAL	2,160 Cu. Yds.
TOPSOIL	2,160 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	0 Cu. Yds.

APPROXIMATE SURFACE DISTURBANCE AREAS		
	DISTANCE	ACRES
WELL SITE DISTURBANCE	NA	±4.189
30' WIDE ACCESS ROAD R-O-W DISTURBANCE	±1,241.51'	±0.855
30' WIDE FLOW LINE R-O-W DISTURBANCE	±2,084.16'	±1.435
TOTAL SURFACE USE AREA		±6.479

NOTES:
 • Fill quantity includes 5% for compaction.

CIMAREX ENERGY CO.

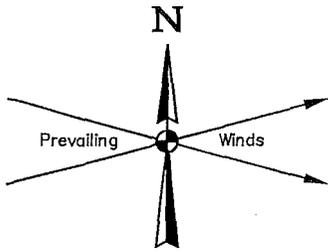
**BONNIE 35 FEDERAL COM #1H, #2H & #3H
 SECTION 35, T25S, R26E, N.M.P.M.
 SE 1/4 SE 1/4**



UELS, LLC
 Corporate Office * 85 South 200 East
 Vernal, UT 84078 * (435) 789-1017

DRAWN BY: S.F.	DATE DRAWN: 10-29-14
SCALE: AS SHOWN	REVISED: 12-15-14

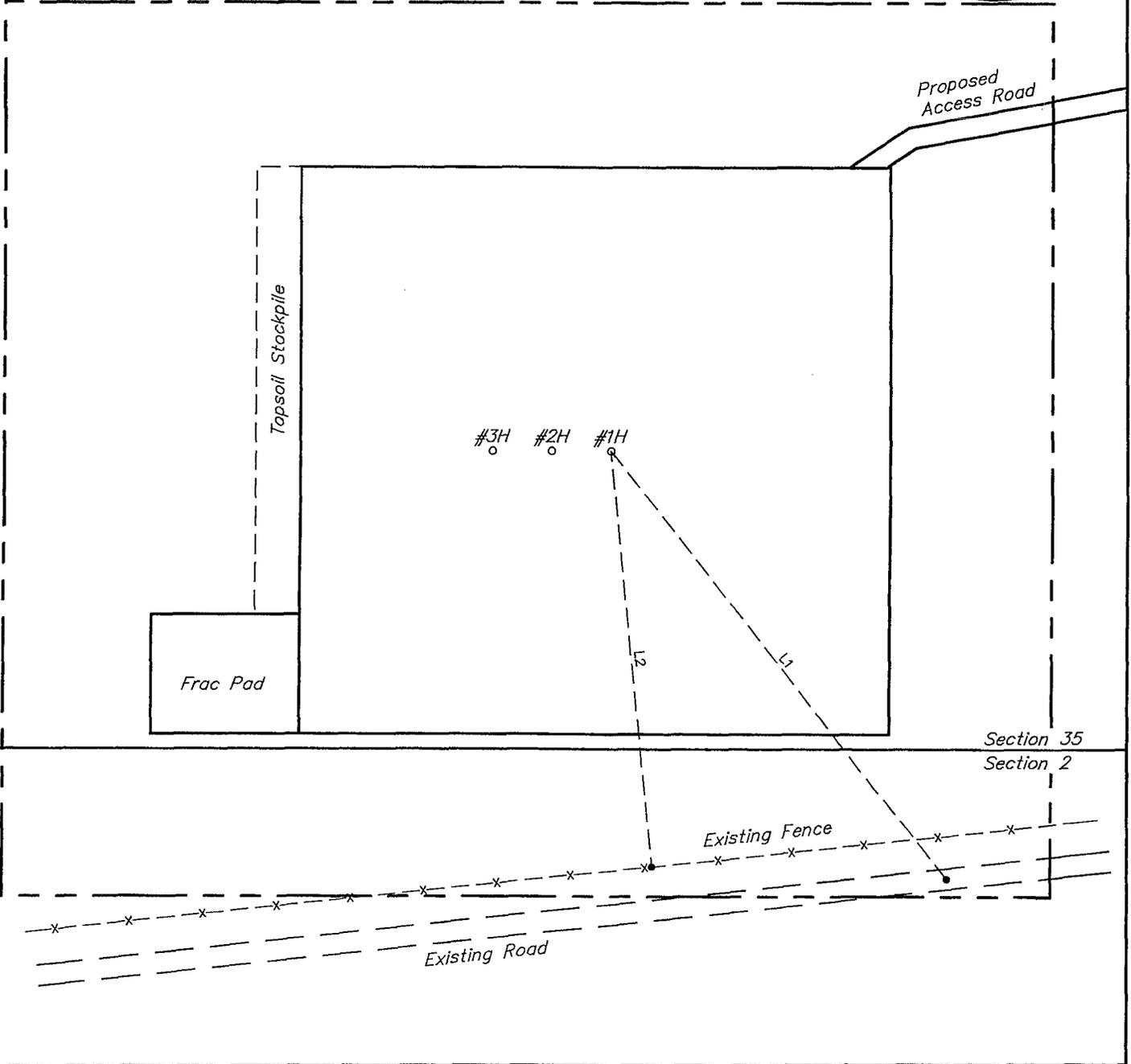
TYPICAL CROSS SECTIONS EXHIBIT D



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S38°E	368'
L2	S06°E	281'



600' X 710' Archaeological Survey Boundary



NOTES:

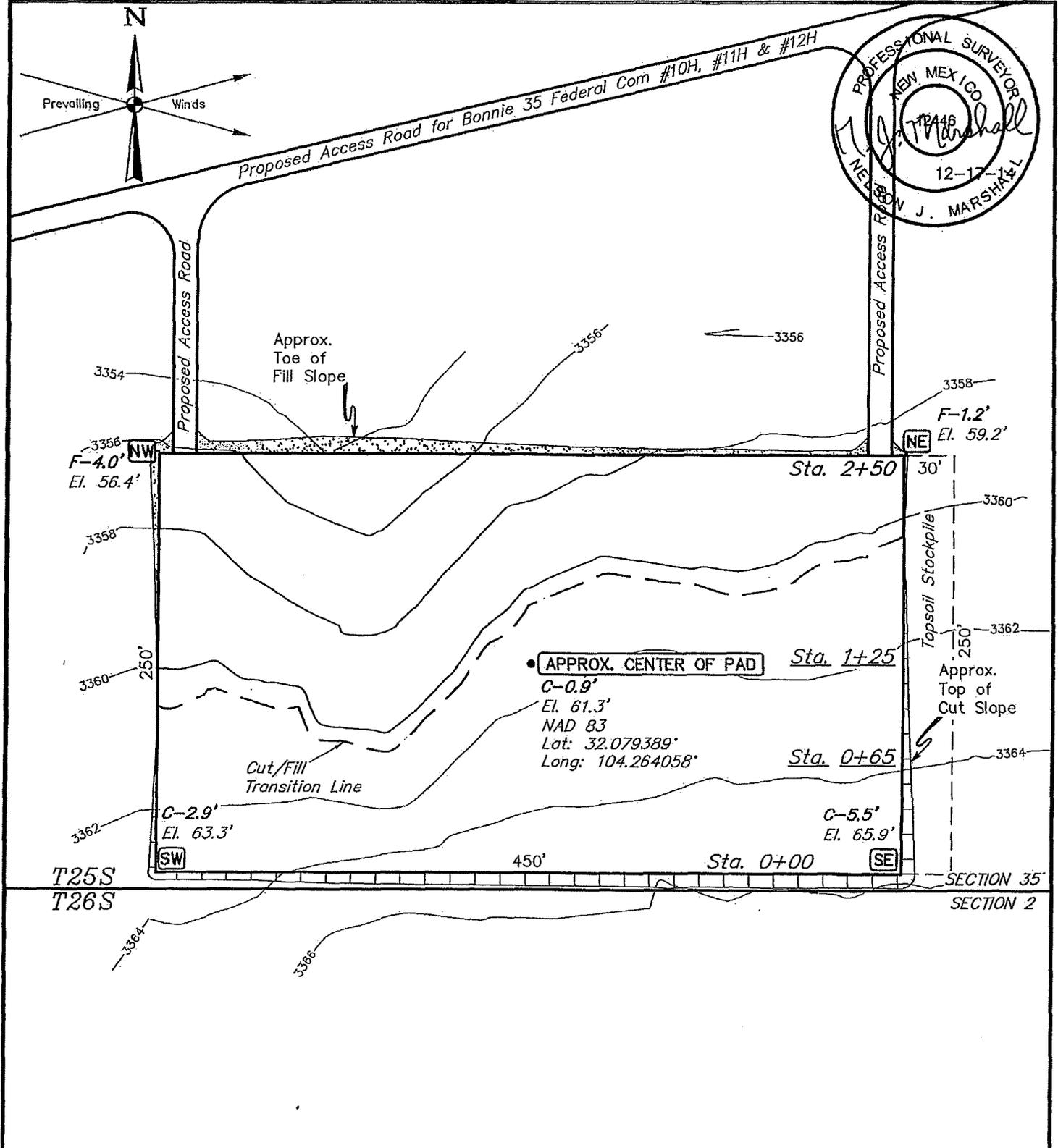
CIMAREX ENERGY CO.

**BONNIE 35 FEDERAL COM #1H, #2H & #3H
SECTION 35, T25S, R26E, N.M.P.M.
SE 1/4 SE 1/4**



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

DRAWN BY: S.F.	DATE DRAWN: 10-29-14
SCALE: 1" = 100'	REVISED: 00-00-00
ARCHAEOLOGICAL SURVEY BOUNDARY EXHIBIT D	



FINISHED GRADE ELEVATION = 3360.4'

NOTES:
 • Contours shown at 2' intervals.

CIMAREX ENERGY CO.

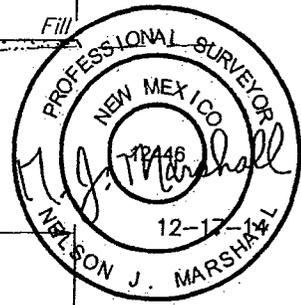
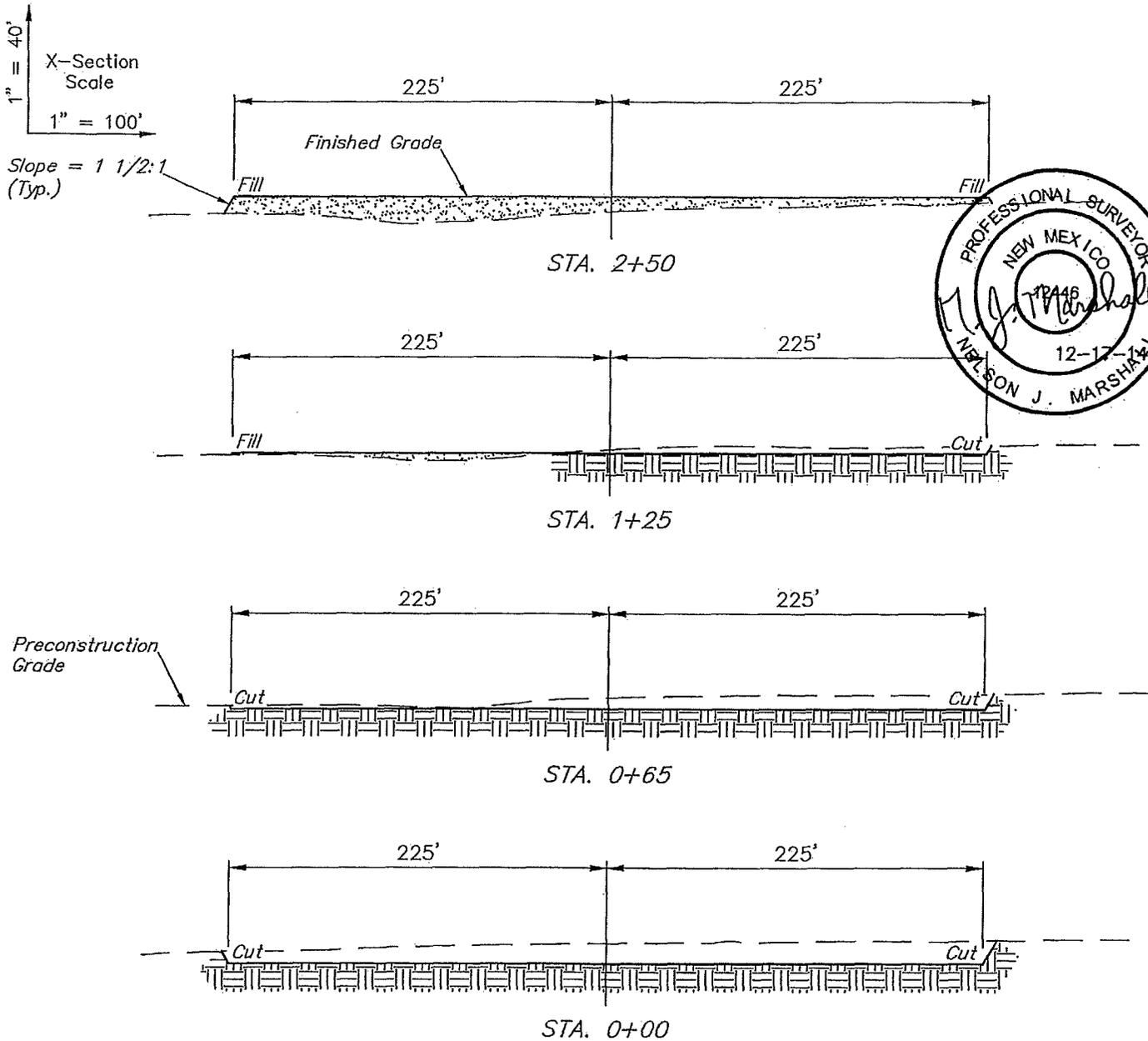
BONNIE 35 CTB
 SECTION 35, T25S, R26E, N.M.P.M.
 S 1/2 S 1/2



UELS, LLC
 Corporate Office * 85 South 200 East
 Vernal, UT 84078 * (435) 789-1017

DRAWN BY: J.J.	DATE DRAWN: 12-11-14
SCALE: 1" = 80'	REVISED: 00-00-00

LOCATION LAYOUT



APPROXIMATE EARTHWORK QUANTITIES	
(4") TOPSOIL STRIPPING	1,480 Cu. Yds.
REMAINING LOCATION	4,850 Cu. Yds.
TOTAL CUT	6,330 Cu. Yds.
FILL	4,850 Cu. Yds.
EXCESS MATERIAL	1,480 Cu. Yds.
TOPSOIL	1,480 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	0 Cu. Yds.

APPROXIMATE SURFACE DISTURBANCE AREAS		
	DISTANCE	ACRES
WELL SITE DISTURBANCE	NA	±2.911
25' WIDE ACCESS ROAD R-O-W DISTURBANCE	±416.63'	±0.239
15' WIDE POWER LINE R-O-W DISTURBANCE	±293.96'	±0.101
TOTAL SURFACE USE AREA		±3.251

NOTES:

- Fill quantity includes 5% for compaction.
- Calculations based on 4" of topsoil stripping.
- Topsoil should not be stripped below finished grade on substructure area.

CIMAREX ENERGY CO.

BONNIE 35 CTB
SECTION 35, T25S, R26E, N.M.P.M.
S 1/2 S 1/2



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

DRAWN BY: J.J.	DATE DRAWN: 12-11-14
SCALE: AS SHOWN	REVISED: 00-00-00
TYPICAL CROSS SECTIONS	

Sec. 35

1/4 Section Line

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S00°07'15"W	258.44'
L2	S00°08'22"W	158.19'

1/16 Section Line

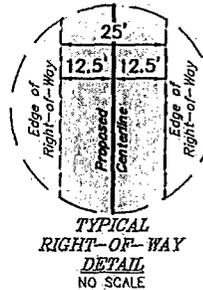
1/4 Section Line

BEGINNING OF ROAD "A" STA. 0+00 BEARS N13°36'18"E 533.13' FROM THE SOUTH 1/4 CORNER OF SECTION 35, T25S, R26E, N.M.P.M.

END OF ROAD "A" STA. 2+58.44 BEARS N25°40'30"E 288.18' FROM THE SOUTH 1/4 CORNER OF SECTION 35, T25S, R26E, N.M.P.M.

BEGINNING OF ROAD "B" STA. 0+00 BEARS N35°07'56"W 512.16' FROM THE SOUTH 1/4 CORNER OF SECTION 35, T25S, R26E, N.M.P.M.

END OF ROAD "B" STA. 1+58.19 BEARS N48°32'49"W 393.75' FROM THE SOUTH 1/4 CORNER OF SECTION 35, T25S, R26E, N.M.P.M.



SW 1/4

1/16 Section Line

SE 1/4

BEGINNING OF PROPOSED ROAD "B" RIGHT-OF-WAY STA. 0+00 (At Proposed Access Road for the Bonnie 35 Federal Com #10H, #11H & #12H)

BLM

BEGINNING OF PROPOSED ROAD "A" RIGHT-OF-WAY STA. 0+00 (At Proposed Access Road for the Bonnie 35 Federal Com #10H, #11H & #12H)

BLM

Proposed Access Road for the Bonnie 35 Federal Com #10H, #11H & #12H

END OF PROPOSED ROAD "B" RIGHT-OF-WAY STA. 1+58.19 (At Proposed Well Pad)

SW Cor. Sec. 35

Proposed Bonnie 35 CTB

END OF PROPOSED ROAD "A" RIGHT-OF-WAY STA. 2+58.44 (At Proposed Well Pad)

SE Cor. Sec. 35

N89°53'02"W - 2657.65' (Meas.) Section Line

N89°52'14"W - 2661.80' (Meas.) T25S T26S

ROAD "A" RIGHT-OF-WAY DESCRIPTION

A 25' WIDE RIGHT-OF-WAY 12.5' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT IN THE SW 1/4 SE 1/4 OF SECTION 35, T25S, R26E, N.M.P.M., WHICH BEARS N13°36'18"E 533.13' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 35, THENCE S00°07'15"W 258.44' TO A POINT IN THE SW 1/4 SE 1/4 OF SAID SECTION 35, WHICH BEARS N25°40'30"E 288.18' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 35. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A G.P.S. OBSERVATION. CONTAINS 0.148 ACRES MORE OR LESS.

ROAD "B" RIGHT-OF-WAY DESCRIPTION

A 25' WIDE RIGHT-OF-WAY 12.5' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

BEGINNING AT A POINT IN THE SE 1/4 SW 1/4 OF SECTION 35, T25S, R26E, N.M.P.M., WHICH BEARS N35°07'56"W 512.16' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 35, THENCE S00°08'22"W 158.19' TO A POINT IN THE SE 1/4 SW 1/4 OF SAID SECTION 35, WHICH BEARS N48°32'49"W 393.75' FROM THE SOUTH 1/4 CORNER OF SAID SECTION 35. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A G.P.S. OBSERVATION. CONTAINS 0.091 ACRES MORE OR LESS.



RIGHT-OF-WAY LENGTHS

PROPERTY OWNER	FEET	ACRES	RODS
BLM SE 1/4 SEC. 35	258.44	0.148	15.66
BLM SW 1/4 SEC. 35	158.19	0.091	9.59
TOTAL	416.63	0.239	25.25

▲ = SECTION CORNERS LOCATED.

CERTIFICATE OF PROFESSIONAL SURVEYOR
THIS IS TO CERTIFY THAT THE ABOVE PLAN WAS PREPARED BY ME OR UNDER MY SUPERVISION AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

REGISTERED LAND SURVEYOR
REGISTRATION NO. 12446
STATE OF NEW MEXICO

12-17-14

NOTES:

* The maximum grade of existing ground for the proposed access road is ±3.8%.

CIMAREX ENERGY CO.

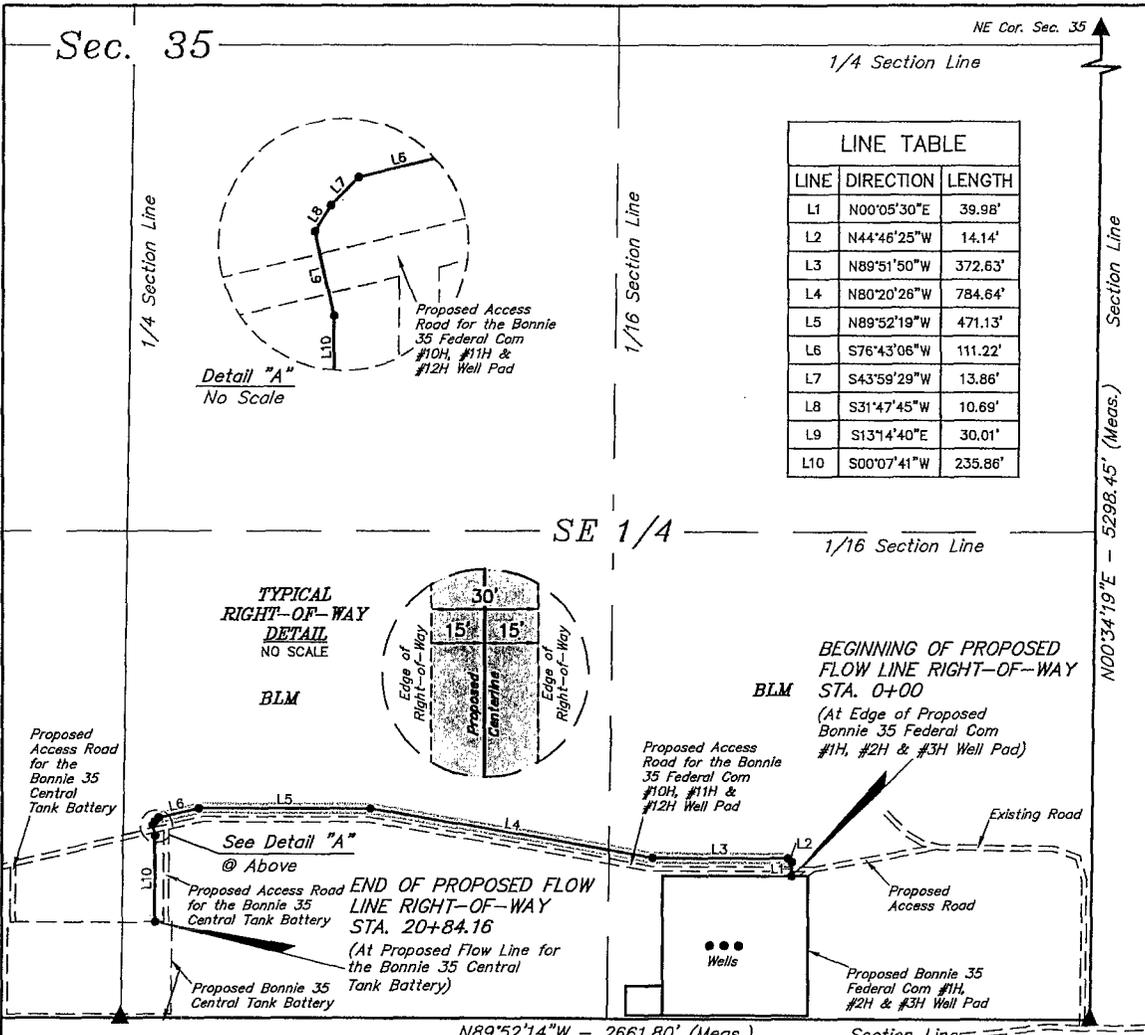
BONNIE 35 CTB
SECTION 35, T25S, R26E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

DRAWN BY: JJ.	DATE DRAWN: 12-11-14
SCALE: 1" = 400'	REVISED: 00-00-00



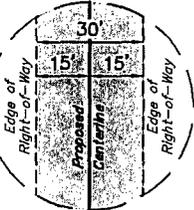
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017





LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N00°05'30"E	39.98'
L2	N44°46'25"W	14.14'
L3	N89°51'50"W	372.63'
L4	N80°20'26"W	784.64'
L5	N89°52'19"W	471.13'
L6	S76°43'06"W	111.22'
L7	S43°59'29"W	13.86'
L8	S31°47'45"W	10.69'
L9	S13°14'40"E	30.01'
L10	S00°07'41"W	235.86'

TYPICAL
RIGHT-OF-WAY
DETAIL
NO SCALE



BEGINNING OF PROPOSED
FLOW LINE RIGHT-OF-WAY
STA. 0+00
(At Edge of Proposed
Bonnie 35 Federal Com
#1H, #2H & #3H Well Pad)

END OF PROPOSED FLOW
LINE RIGHT-OF-WAY
STA. 20+84.16
(At Proposed Flow Line for
the Bonnie 35 Central
Tank Battery)

FLOW LINE RIGHT-OF-WAY DESCRIPTION

A 30' WIDE RIGHT-OF-WAY 15' ON EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.
 BEGINNING AT A POINT IN THE SE 1/4 SE 1/4 OF SECTION 35, T25S, R26E, N.M.P.M., WHICH BEARS N63°41'43"W 884.15'
 FROM THE SOUTHEAST CORNER OF SAID SECTION 35, THENCE N00°05'30"E 39.98'; THENCE N44°46'25"W 14.14'; THENCE
 N89°51'50"W 372.63'; THENCE N80°20'26"W 784.64'; THENCE N89°52'19"W 471.13'; THENCE S76°43'06"W 111.22'; THENCE
 S43°59'29"W 13.86'; THENCE S31°47'45"W 10.69'; THENCE S13°14'40"E 30.01'; THENCE S00°07'41"W 235.86' TO A POINT IN
 THE SW 1/4 SE 1/4 OF SAID SECTION 35, WHICH BEARS N20°03'43"E 276.58' FROM THE SOUTH 1/4 CORNER OF SAID
 SECTION 35. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE
 GRANTOR'S PROPERTY LINES. BASIS OF BEARINGS IS A G.P.S. OBSERVATION. CONTAINS 1.435 ACRES MORE OR LESS.

BEGINNING OF FLOW LINE STA. 0+00 BEARS
 N63°41'43"W 884.15' FROM THE SOUTHEAST
 CORNER OF SECTION 35, T25S, R26E, N.M.P.M.

 END OF FLOW LINE STA. 20+84.16 BEARS
 N20°03'43"E 276.58' FROM THE SOUTH 1/4
 CORNER OF SECTION 35, T25S, R26E, N.M.P.M.



RIGHT-OF-WAY LENGTHS			
PROPERTY OWNER	FEET	ACRES	RODS
BLM SE 1/4 SEC. 35	2,084.16	1.435	126.31

▲ = SECTION CORNERS LOCATED.

CERTIFICATE OF PROFESSIONAL SURVEYOR
 THIS IS TO CERTIFY THAT THE ABOVE PLAT WAS PREPARED FROM FIELD
 NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION
 AND THAT THE SAME ARE TRUE AND CORRECT TO THE BEST OF MY
 KNOWLEDGE AND BELIEF.
 12446
 Nelson J. Marshall
 REGISTERED LAND SURVEYOR
 REGISTRATION NO. 12446
 STATE OF NEW MEXICO
 12-18-14

NOTES:

CIMAREX ENERGY CO.

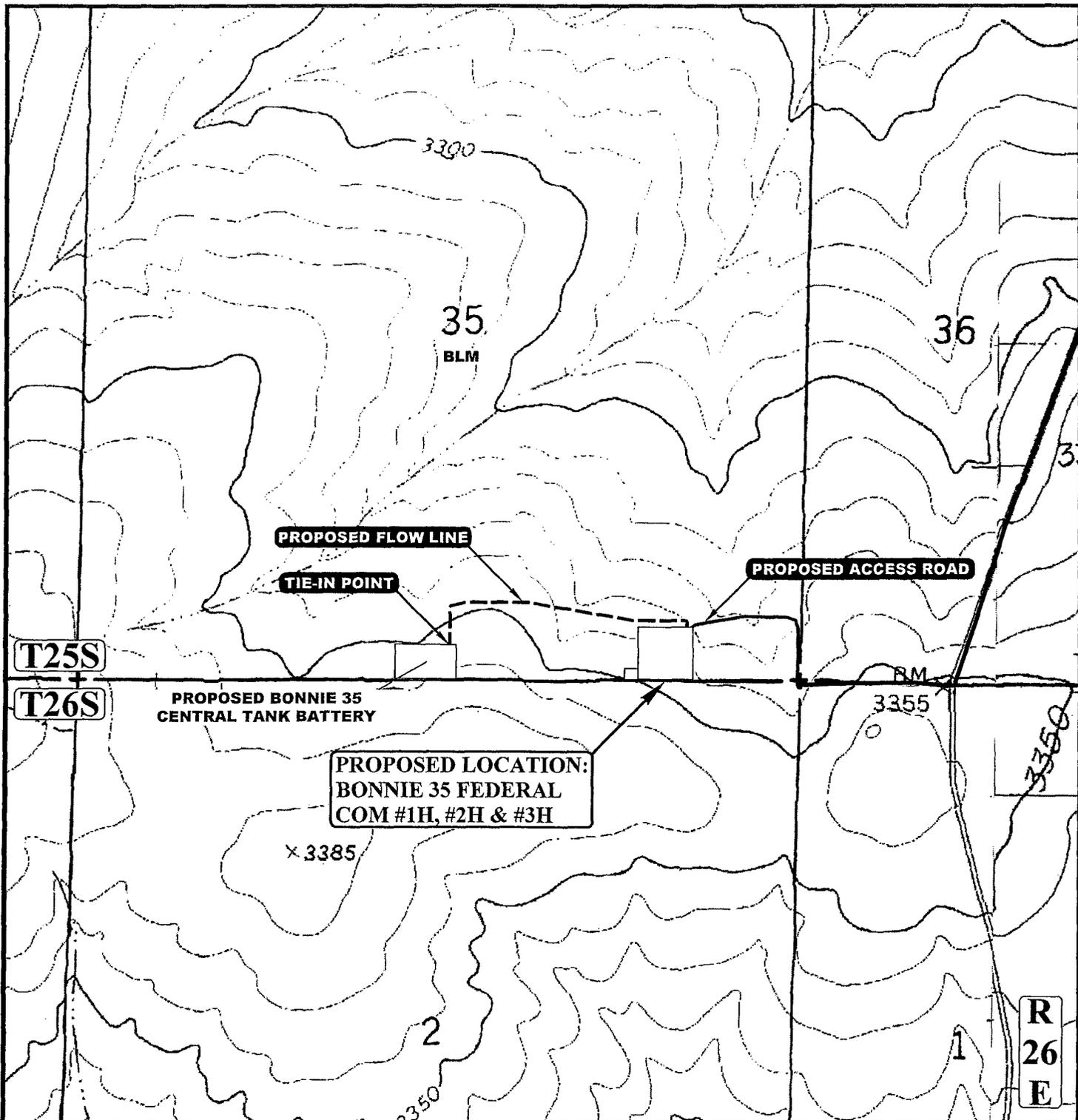
BONNIE 35 FEDERAL COM #1H, #2H & #3H
 SECTION 35, T25S, R26E, N.M.P.M.
 EDDY COUNTY, NEW MEXICO

DRAWN BY: S.F.	DATE DRAWN: 12-15-14
SCALE: 1" = 400'	REVISED: 00-00-00

FLOW LINE R-O-W EXHIBIT G-1



UELS, LLC
 Corporate Office * 85 South 200 East
 Vernal, UT 84078 * (435) 789-1017



APPROXIMATE TOTAL FLOW LINE DISTANCE = 2,084' +/-

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:

-  EXISTING ROAD
-  PROPOSED ROAD
-  PROPOSED FLOW LINE

CIMAREX ENERGY CO.

BONNIE 35 FEDERAL COM #1H, #2H & #3H
SECTION 35, T25S, R26E, N.M.P.M.
SE 1/4 SE 1/4



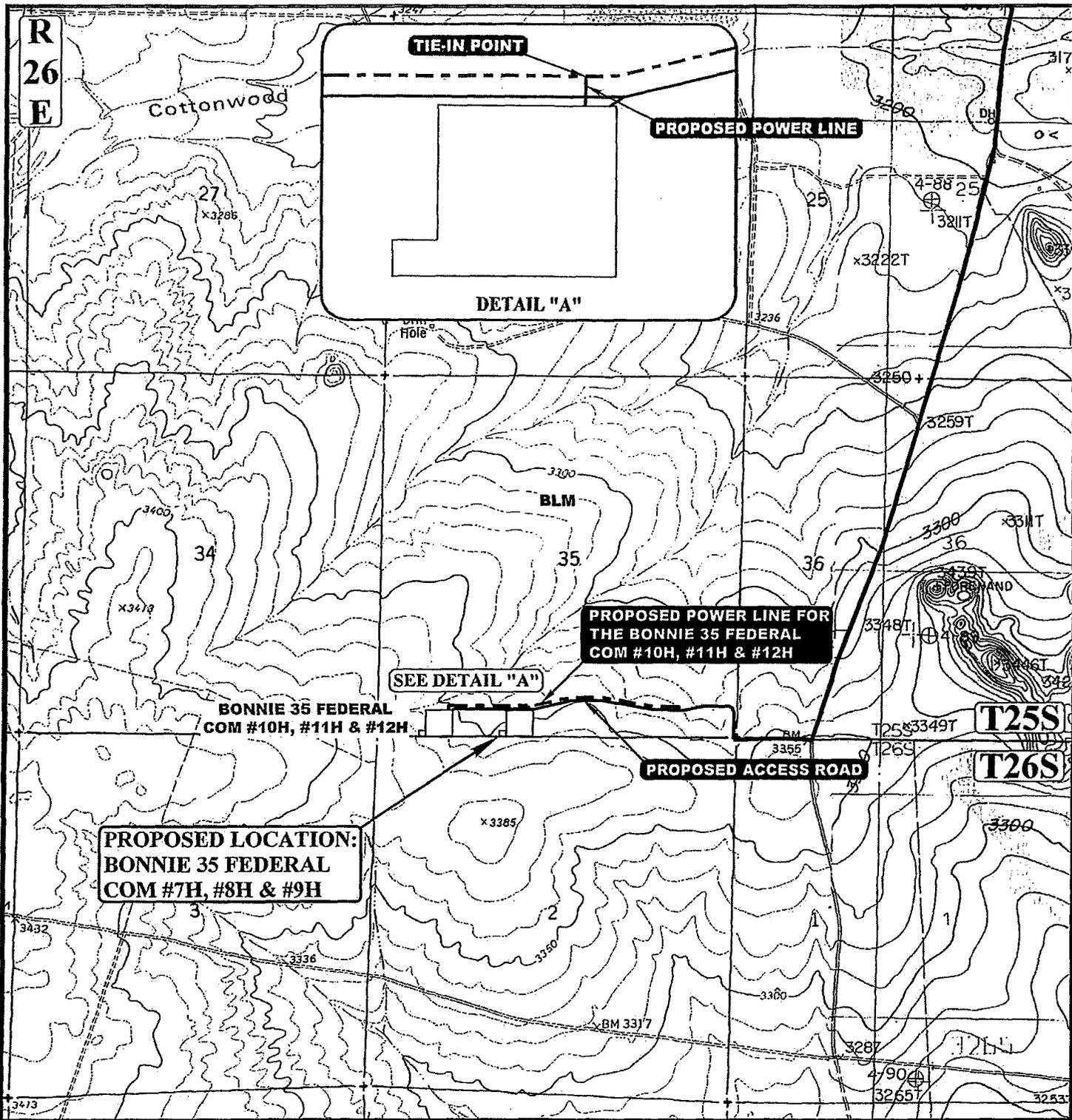
DRAWN BY: T.E.	DATE DRAWN: 12-17-14
SCALE: 1" = 1000'	REVISED: 00-00-00

FLOW LINE MAP

EXHIBIT G



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



APPROXIMATE TOTAL POWER LINE DISTANCE = 65' +/-

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:

- PROPOSED ROAD
- PROPOSED POWER LINE
- PROPOSED POWER LINE (SERVICING OTHER WELLS)

CIMAREX ENERGY CO.

**BONNIE 35 FEDERAL COM #7H, #8H & #9H
SECTION 35, T25S, R26E, N.M.P.M.
SE 1/4 SW 1/4**



DRAWN BY: N.W.	DATE DRAWN: 10-31-14
SCALE: 1" = 2000'	REVISED: 00-00-00

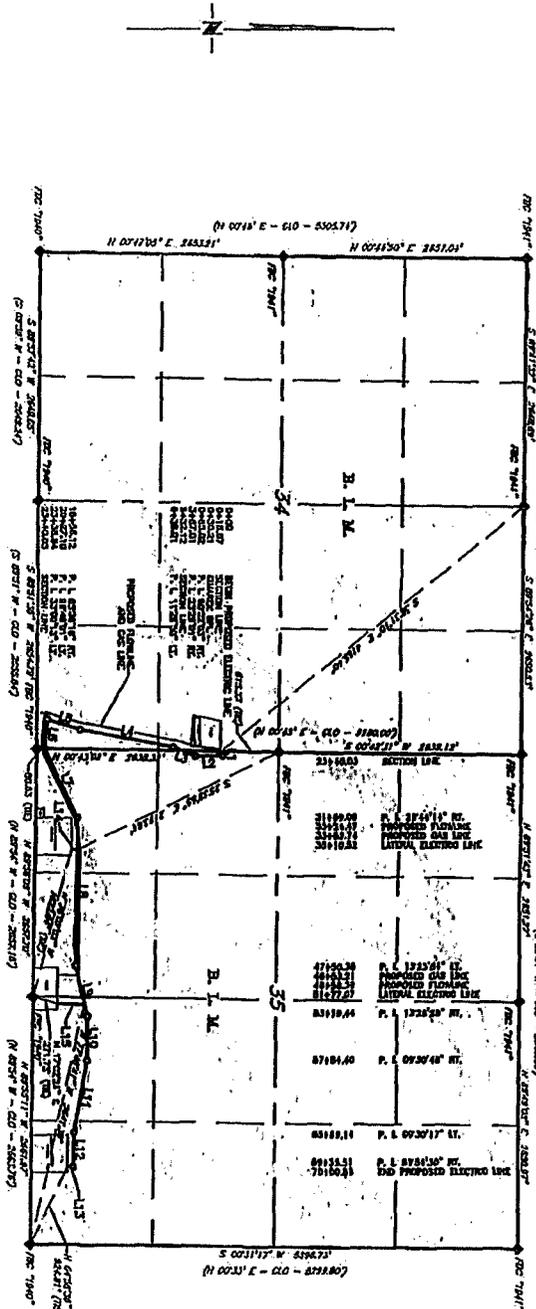
POWER LINE MAP

EXHIBIT H



UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

CIMAREX ENERGY COMPANY
PROPOSED ELECTRIC LINE FROM THE HAYDUKE 34 #3 BATTERY TO THE BONNIE 35 FED COM #1, 2 & 3H,
& LATERALS FOR THE BONNIE 35 FED COM #10, 11 & 12H, & BONNIE BATTERY
N. M. P. M., EDDY CO., NEW MEXICO



LINE	BEARING	LENGTH
L1	N 86°13'16" E	65.02
L2	S 01°24'59" E	301.98
L3	S 22°04'22" W	272.00
L4	S 10°54'23" W	1017.11
L5	S 15°04'43" W	370.38
L6	S 43°24'16" E	311.74
L7	N 53°13'28" E	830.25
L8	N 76°38'48" E	580.06
L9	S 69°57'17" E	580.06
L10	S 69°54'42" E	473.95
L11	S 80°23'54" E	784.74
L12	S 89°54'11" E	588.37
L13	S 00°00'15" W	85.05
L14	S 00°00'23" E	64.12
L15	S 00°08'00" W	294.14

SCALE: 1" = 1500'
 0 750' 1500'
 BEARINGS ARE AND AT GRID
 AND EAST
 DISTANCES ARE GRID/D
 LEGEND
 () RECORD DATA - GLO
 ◊ FOUND ANCHORAGE
 AS NOTED
 PROPOSED ELECTRIC LINE

Firm No.: TX 10193838 NM 4655451

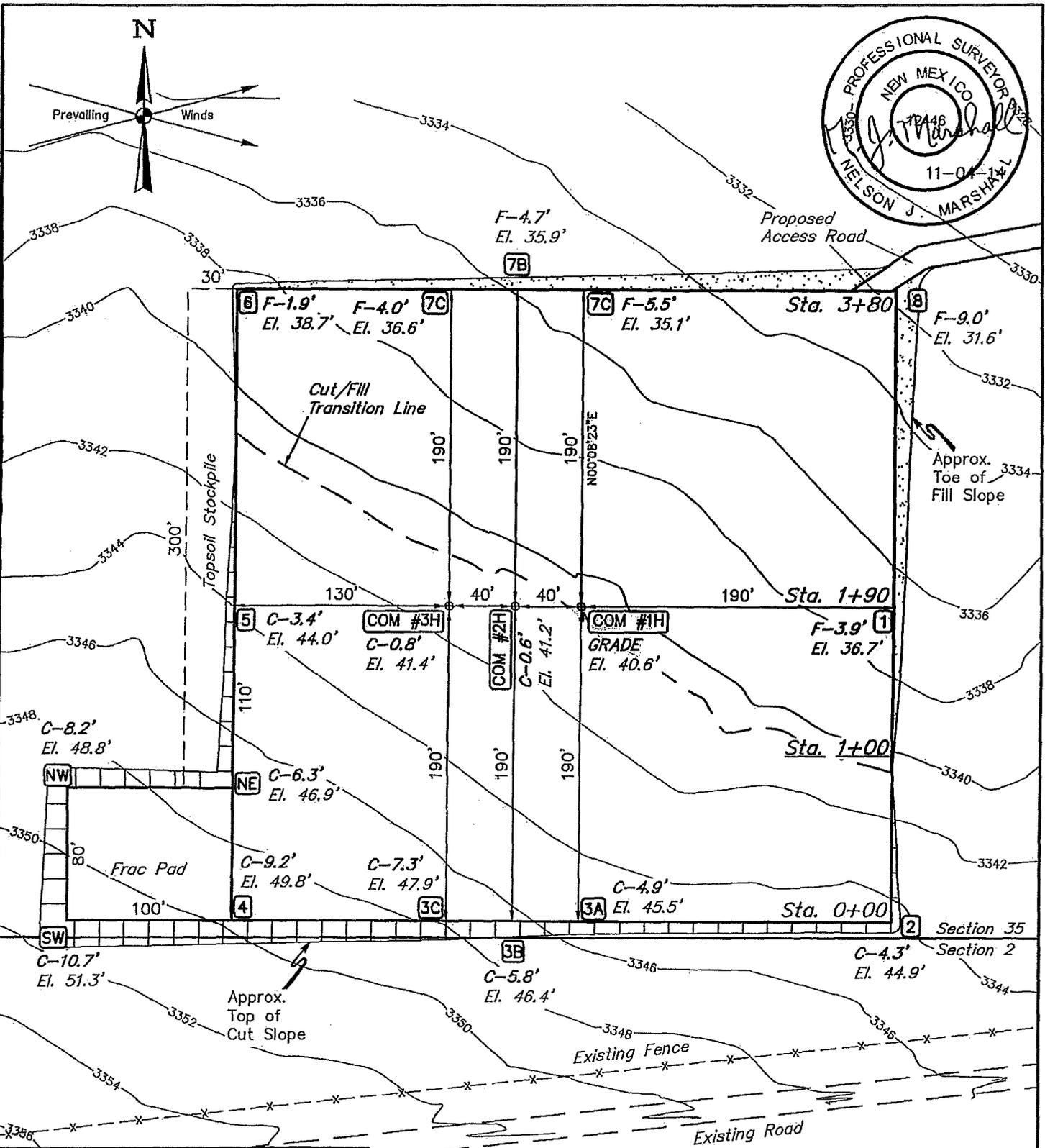
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NO.	REVISION	DATE
JOB NO.: LS1502054		
DWG. NO.: 1502054-1		

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1500'
DATE: 2-19-2015
SURVEYED BY: ML/AA
DRAWN BY: CMJ
APPROVED BY: RMH
SHEET : 1 OF 2



NOTES:

- Flare pit is to be located a min. of 100' from the wellhead.
- Contours shown at 2' intervals.

CIMAREX ENERGY CO.
BONNIE 35 FEDERAL COM #1H, #2H & #3H
SECTION 35, T25S, R26E, N.M.P.M.
SE 1/4 SE 1/4

DRAWN BY: S.F.	DATE DRAWN: 10-29-14
SCALE: 1" = 80'	REVISED: 00-00-00

LOCATION LAYOUT EXHIBIT D



UELS, LLC
 Corporate Office * 85 South 200 East
 Vernal, UT 84078 * (435) 789-1017

1. Geological Formations

TVD of target 9,570

Pilot Hole TD N/A

MD at TD 19,428

Deepest expected fresh water 50

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Quaternary fill	0	N/A	
Rustler	0	N/A	
Salado	1199	N/A	
Castille	1763	N/A	
Lamar	1956	N/A	
Bell Canyon	2007	Hydrocarbons	
Cherry Canyon	2969	Hydrocarbons	
Brushy Canyon	3959	Hydrocarbons	
Brushy Canyon Lower	3959	Hydrocarbons	
Bone Spring	5524	Hydrocarbons	
Bone Spring A Shale	5645	Hydrocarbons	
Bone Spring C Shale	6031	Hydrocarbons	
1st Bone Spring Ss	6496	Hydrocarbons	
2nd Bone Spring Ls	6761	N/A	
2nd Bone Spring Ss	7023	Hydrocarbons	
2nd BS Ss Lower	7833	Hydrocarbons	
3rd Bone spring Ss	8353	Hydrocarbons	
Wolfcamp	8714	Hydrocarbons	
Wolfcamp B	9357	Hydrocarbons	
Wolfcamp C	9480	Hydrocarbons	
Wolfcamp C horz target	9570	Hydrocarbons	
Wolfcamp D	9595	Hydrocarbons	
Wolfcamp E	10267	Hydrocarbons	

2. Casing Program

Hole Size	Casing Depth From	Casing Depth To	Casing Size	Weight (lb/ft)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
17 1/2	0	450	13-3/8"	48.00	H-40/J-55 Hybrid	ST&C	3.59	8.40	14.91
12 1/4	0	1916	9-5/8"	36.00	J-55	LT&C	1.99	3.46	6.57
8 3/4	0	8972	7"	32.00	L-80	LT&C	2.00	2.11	2.21
8 3/4	8972	9672	7"	32.00	L-80	BT&C	1.89	1.86	43.27
6	8972	19428	4-1/2"	11.60	P-110	BT&C	1.22	1.72	52.91
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Cimarex Energy Co., Bonnie 35 Federal Com #2H

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	N
Does casing meet API specifications? If no, attach casing specification sheet.	N
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	N
Is well within the designated 4 string boundary.	N
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	N
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	N
Is 2nd string set 100' to 600' below the base of salt?	N
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	N
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	N

3. Cementing Program

Casing	# Sks	Wt. lb/gal	Yld ft ³ /sack	H ₂ O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	91	13.50	1.72	9.15	15.5	Lead: Class C + Bentonite
	192	14.80	1.36	6.57	9.5	Tail: Class C + Retarder
Intermediate	361	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	112	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	579	10.80	2.35	9.60	17:43	Lead: Tuned Light I Class H
	90	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS
Completion System	724	14.50	1.30	5.79	20	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + Expanding Agent + Retarder + Antifoam

Casing String	TOC	% Excess
Surface	0	33
Intermediate	0	44
Production	1716	24
Completion System	9472	10

4. Pressure Control Equipment

A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

BOP installed and tested before drilling which hole?	Size	Min Required WP	Type		Tested To
12 1/4	13 5/8	2M	Annular	X	50% of working pressure
			Blind Ram	X	
			Pipe Ram		2M
			Double Ram	X	
			Other		
8 3/4	13 5/8	3M	Annular	X	50% of working pressure
			Blind Ram	X	3M
			Pipe Ram		
			Double Ram	X	
			Other		
6	13 5/8	5M	Annular	X	50% of working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other		

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

X	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.
X	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.
N	Are anchors required by manufacturer?

5. Mud Program

Depth	Type	Weight (ppg)	Viscosity	Water Loss
0' to 450'	FW Spud Mud	8.30 - 8.80	28	N/C
450' to 1916'	Brine Water	9.70 - 10.20	30-32	N/C
1916' to 9672'	FW/Cut Brine	8.70 - 9.20	30-32	N/C
10010' to 19428'	Oil Based Mud	12.00 - 12.50	50-70	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

6. Logging and Testing Procedures

Logging, Coring and Testing	
X	Will run GR/CNL from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test?
	Coring?

Additional Logs Planned	Interval

7. Drilling Conditions

Condition	
BH Pressure at deepest TVD	4549 psi
Abnormal Temperature	No

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
X	H2S is present
X	H2S plan is attached

8. Other Facets of Operation

Exhibit F-1
 Bonnie 35 Federal Com #2H
 Cimarex Energy Company
 Sec 35-25S-26E
 Eddy County, NM



Midwest Hose & Specialty, Inc.

INTERNAL HYDROSTATIC TEST REPORT		
Customer: Oderco Inc		P.O. Number: odyd-271
HOSE SPECIFICATIONS		
Type: Stainless Steel Armor Choke & Kill Hose	Hose Length: 45'ft.	
I.D. 4 INCHES	O.D. 9 INCHES	
WORKING PRESSURE 10,000 PSI	TEST PRESSURE 15,000 PSI	BURST PRESSURE 0 PSI
COUPLINGS		
Stem Part No. OKC OKC	Ferrule No. OKC OKC	
Type of Coupling: Swage-It		
PROCEDURE		
<i>Hose assembly pressure tested with water at ambient temperature.</i>		
TIME HELD AT TEST PRESSURE 15 MIN.	ACTUAL BURST PRESSURE: 0 PSI	
Hose Assembly Serial Number: 79793	Hose Serial Number: OKC	
Comments:		
Date: 3/8/2011	Tested: <i>A. James Jones</i>	Approved: <i>Kevin Red</i>



Midwest Hose & Specialty, Inc.

Internal Hydrostatic Test Graph

Customer: Houston

Pick Ticket #: 94260

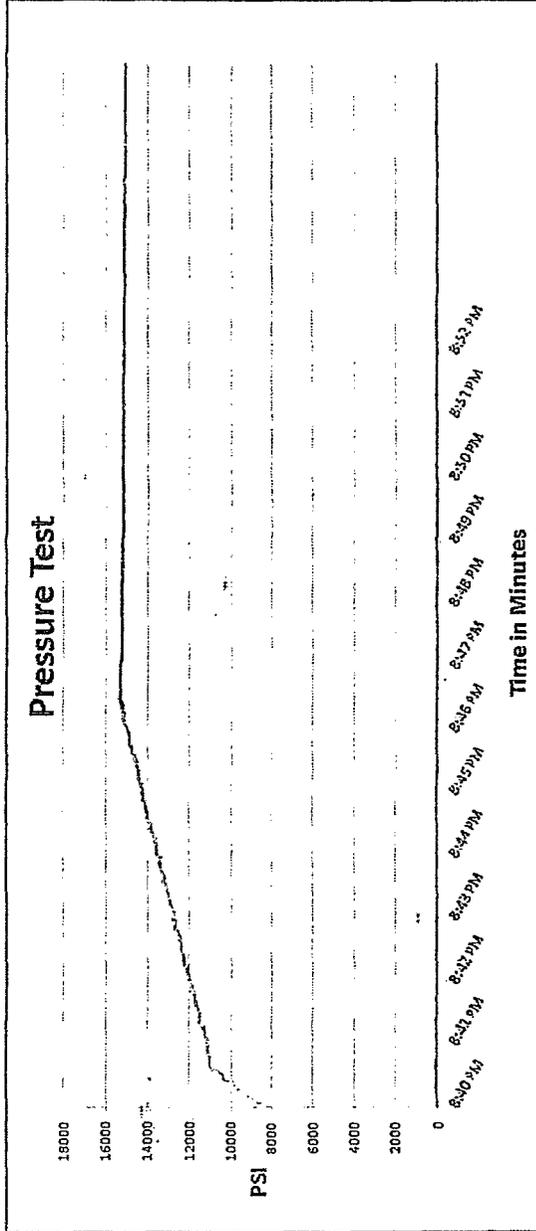
Hose Specifications

Hose Type: C&K
 Length: 45'
 I.D.: 4"
 O.D.: 6.09"
 Working Pressure: 10000 PSI
 Burst Pressure: Standard Safety Multiplier Applies

Verification

Type of Fittings: 41/1610K
 Die Size: 6.38"
 Hose Serial #: 5544
 Coupling Method: Swage
 Ethal O.D.: 6.25"
 Hose Assembly Serial #: 79793

Exhibit F-1 – Co-Flex Hose Hydrostatic Test
Bonnie 35 Federal Com #2H
 Cimarex Energy Company
 Sec 35-25S-26E
 Eddy County, NM



Test Pressure: 15000 PSI
 Time Held at Test Pressure: 11 Minutes
 Actual Burst Pressure: 15485 PSI
 Peak Pressure: 15485 PSI

Comments: Hose assembly pressure tested with water at ambient temperature.

Tested By: Zac McConnell

Approved By: Kim Thomas

Exhibit F-2 – Co-Flex Hose
Bonnie 35 Federal Com #2H
Cimarex Energy Company
Sec 35-25S-26E
Eddy County, NM



Midwest Hose & Specialty, Inc.

Certificate of Conformity

Customer:		PO
DEM		ODYD-271
SPECIFICATIONS		
Sales Order	Dated:	
79793	3/8/2011	
<p>We hereby certify that the material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards</p> <p>Supplier: Midwest Hose & Specialty, Inc. 10640 Tanner Road Houston, Texas 77041</p>		
Comments:		
Approved:		Date:
<i>Janet Garcia</i>		3/8/2011



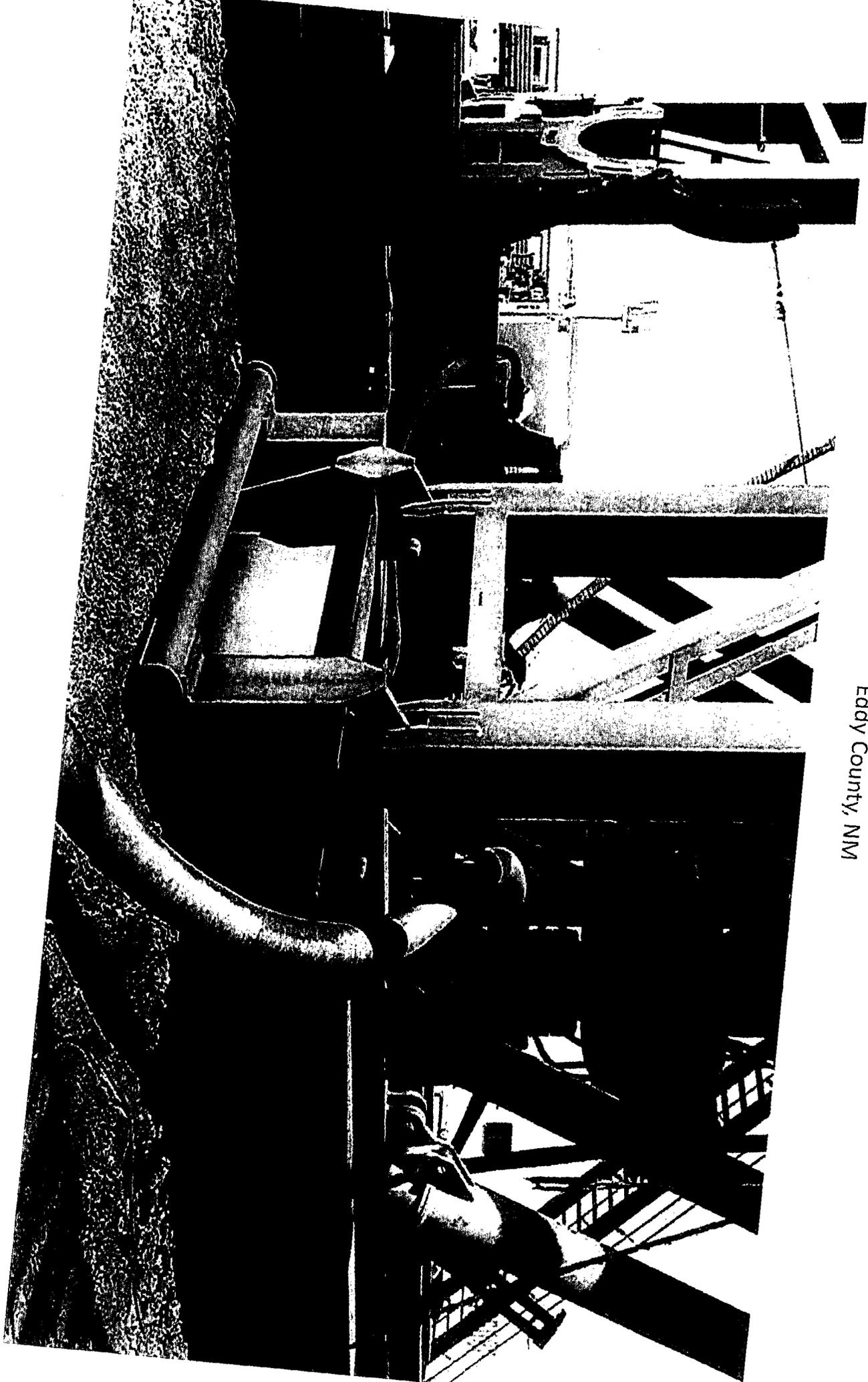
Exhibit F -3- Co-Flex Hose
Bonnie 35 Federal Com #2H
Cimarex Energy Company
Sec 35-25S-26E
Eddy County, NM

Specification Sheet Choke & Kill Hose

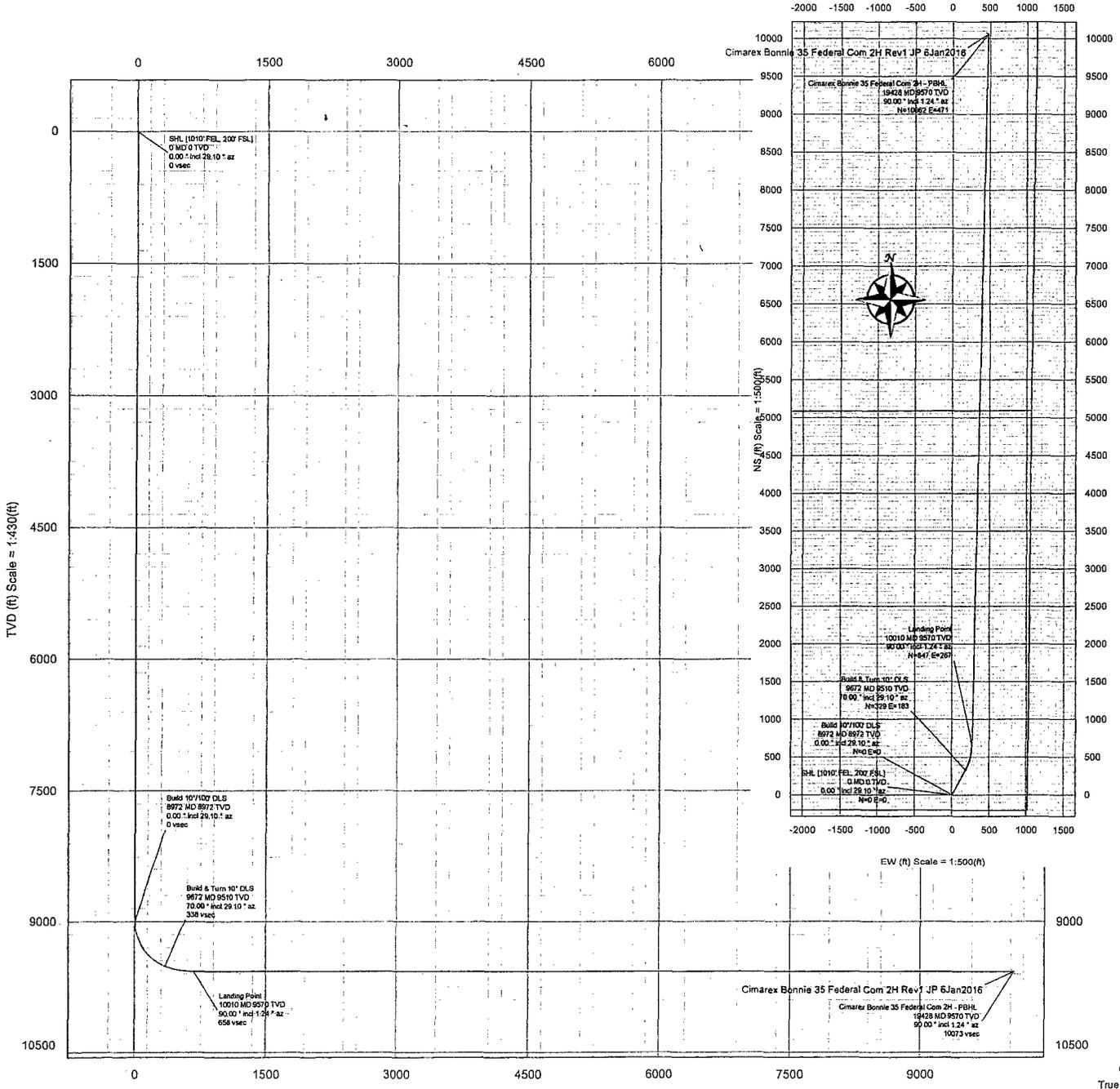
The Midwest Hose & Specialty Choke & Kill hose is manufactured with only premium components. The reinforcement cables, inner liner and cover are made of the highest quality material to handle the tough drilling applications of today's industry. The end connections are available with API flanges, API male threads, hubs, hammer unions or other special fittings upon request. Hose assembly is manufactured to API 7K. This assembly is wrapped with fire resistant vermiculite coated fiberglass insulation, rated at 2000 degrees with stainless steel armor cover.

Working Pressure:	5,000 or 10,000 psi working pressure
Test Pressure:	10,000 or 15,000 psi test pressure
Reinforcement:	Multiple steel cables
Cover:	Stainless Steel Armor
Inner Tube:	Petroleum resistant, Abrasion resistant
End Fitting:	API flanges, API male threads, threaded or butt weld hammer unions, unbolt and other special connections
Maximum Length:	110 Feet
ID:	2-1/2", 3", 3-1/2", 4"
Operating Temperature:	-22 deg F to +180 deg F (-30 deg C to +82 deg C)

Exhibit F – Co-Flex Hose
Bonnie 35 Federal Com #2H
Cimarex Energy Company
Sec 35-25S-26E
Eddy County, NM



Borehole: Original Borehole		Well: Bonnie 35 Federal Com 2H		Field: NM Eddy County (NAD 83)		Structure: TBD	
Gravity & Magnetic Parameters		Surface Location		NADE3 New Mexico State Plane, Eastern Zone, US Feet		Miscellaneous	
Model: HDGM 2014	Dip: 59.822°	Date: 09-Feb-2015	Lat: N 32 4 46.41	Northing: 392888.361US	Grid Conv: 0.0398°	Slot: 2H	TVD Ref: Ground Elevation(3341.2ft above MSL)
MagDec: 7.692°	FS: 48200.464mT	Gravity FS: 998.428mgm(9.80665 Based)	Lon: W 104 15 30.40	Easting: 564532.291US	Scale Fact: 0.99990971	Plan: Rev1 JP 6Jan2016	



Vertical Section (ft) Azim = 2.681° Scale = 1:430(ft) Origin = 0N/-S, 0E/-W

Grid North
 Tot Corr (M-G 7.652°)
 Mag Dec (7.692°)
 Grid Conv (0.040°)

Critical Points								
Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL [1010' FEL, 200' FSL]	0.00	0.00	29.10	0.00	0.00	0.00	0.00	
Build 10°/100' DLS	8972.02	0.00	29.10	8972.02	0.00	0.00	0.00	0.00
Build/Turn 10°/100' DLS	9672.02	70.00	29.10	9510.42	340.39	329.41	183.35	10.00
EOC (Curve-Hold)	10010.20	90.00	1.24	9570.00	862.20	648.56	266.73	10.00
Cimarex Bonnie 35 Federal Com 2H - PBHL	19427.97	90.00	1.24	9570.00	10071.72	10062.11	471.18	0.00

Cimarex Bonnie 35 Federal Com 2H - PBHL
 19428 MD 9570 TVD
 90.00° Incl 1.24° Az
 10073 VSEC

CONTROLLED

Project: Cimarex Bonnie 35 Federal Com 2H - PBHL
 Drawing Ref: 6Jan2016
 Copy Number: 1 of 3
 Date: 08-Jun-2016

Client: _____
 Office: _____

Cimarex Bonnie 35 Federal Com 2H Rev1 JP 6Jan2016 Proposal Geodetic Report
(Non-Def Plan)



Report Date: January 06, 2016 - 03:13 PM
 Client: Cimarex
 Field: NM Eddy County (NAD 83)
 Structure / Slot: Cimarex Bonnie 35 Federal Com 2H / Cimarex Bonnie 35 Federal Com 2H
 Well: Cimarex Bonnie 35 Federal Com 2H
 Borehole: Original Borehole
 UWI / API#: Unknown / Unknown
 Survey Name: Cimarex Bonnie 35 Federal Com 2H Rev1 JP 6Jan2016
 Survey Date: December 01, 2014
 Tort / AHD / DDI / ERD Ratio: 103.818 ° / 10125.903 ft / 6.329 / 1.058
 Coordinate Reference System: NAD83 New Mexico State Plane, Eastern Zone, US Feet
 Location Lat / Long: N 32° 4' 46.40817", W 104° 15' 30.39776"
 Location Grid N/E Y/X: N 392688.360 RUS, E 564532.290 RUS
 CRS Grid Convergence Angle: 0.0398 °
 Grid Scale Factor: 0.9990971
 Version / Patch: 2.8.572.0

Survey / DLS Computation: Minimum Curvature / Lubinski
 Vertical Section Azimuth: 2.681 ° (Grid North)
 Vertical Section Origin: 0.000 ft, 0.000 ft
 TVD Reference Datum: Ground Elevation
 TVD Reference Elevation: 3341.200 ft above MSL
 Seabed / Ground Elevation: 3341.200 ft above MSL
 Magnetic Declination: 7.692 °
 Total Gravity Field Strength: 998.4282mgn (9.80665 Based)
 Gravity Model: GARM
 Total Magnetic Field Strength: 48200.464 nT
 Magnetic Dip Angle: 59.822 °
 Declination Date: February 09, 2015
 Magnetic Declination Model: HDGM 2014
 North Reference: Grid North
 Grid Convergence Used: 0.0398 °
 Total Corr Mag North->Grid North: 7.6525 °
 Local Coord Referenced To: Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (*100ft)	Northing (ftUS)	Easting (RUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL [1010' FEL, 200' FSL]	0.00	0.00	29.10	0.00	0.00	0.00	0.00	N/A	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	100.00	0.00	29.10	100.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	200.00	0.00	29.10	200.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	300.00	0.00	29.10	300.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	400.00	0.00	29.10	400.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	500.00	0.00	29.10	500.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	600.00	0.00	29.10	600.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	700.00	0.00	29.10	700.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	800.00	0.00	29.10	800.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	900.00	0.00	29.10	900.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	1000.00	0.00	29.10	1000.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	1100.00	0.00	29.10	1100.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	1200.00	0.00	29.10	1200.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	1300.00	0.00	29.10	1300.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	1400.00	0.00	29.10	1400.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	1500.00	0.00	29.10	1500.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	1600.00	0.00	29.10	1600.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	1700.00	0.00	29.10	1700.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	1800.00	0.00	29.10	1800.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	1900.00	0.00	29.10	1900.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	2000.00	0.00	29.10	2000.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	2100.00	0.00	29.10	2100.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	2200.00	0.00	29.10	2200.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	2300.00	0.00	29.10	2300.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	2400.00	0.00	29.10	2400.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	2500.00	0.00	29.10	2500.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	2600.00	0.00	29.10	2600.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	2700.00	0.00	29.10	2700.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	2800.00	0.00	29.10	2800.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	2900.00	0.00	29.10	2900.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	3000.00	0.00	29.10	3000.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	3100.00	0.00	29.10	3100.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	3200.00	0.00	29.10	3200.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	3300.00	0.00	29.10	3300.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	3400.00	0.00	29.10	3400.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	3500.00	0.00	29.10	3500.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	3600.00	0.00	29.10	3600.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	3700.00	0.00	29.10	3700.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	3800.00	0.00	29.10	3800.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	3900.00	0.00	29.10	3900.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	4000.00	0.00	29.10	4000.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	4100.00	0.00	29.10	4100.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	4200.00	0.00	29.10	4200.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	4300.00	0.00	29.10	4300.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	4400.00	0.00	29.10	4400.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	4500.00	0.00	29.10	4500.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	4600.00	0.00	29.10	4600.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	4700.00	0.00	29.10	4700.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	4800.00	0.00	29.10	4800.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	4900.00	0.00	29.10	4900.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	5000.00	0.00	29.10	5000.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	5100.00	0.00	29.10	5100.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	5200.00	0.00	29.10	5200.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	5300.00	0.00	29.10	5300.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	5400.00	0.00	29.10	5400.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	5500.00	0.00	29.10	5500.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	5600.00	0.00	29.10	5600.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	5700.00	0.00	29.10	5700.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	5800.00	0.00	29.10	5800.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	5900.00	0.00	29.10	5900.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	6000.00	0.00	29.10	6000.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	6100.00	0.00	29.10	6100.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	6200.00	0.00	29.10	6200.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	6300.00	0.00	29.10	6300.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	6400.00	0.00	29.10	6400.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	6500.00	0.00	29.10	6500.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	6600.00	0.00	29.10	6600.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	6700.00	0.00	29.10	6700.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	6800.00	0.00	29.10	6800.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	6900.00	0.00	29.10	6900.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	7000.00	0.00	29.10	7000.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	7100.00	0.00	29.10	7100.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	7200.00	0.00	29.10	7200.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	7300.00	0.00	29.10	7300.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	7400.00	0.00	29.10	7400.00	0.00	0.00	0.00	0.00	392688.36			

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (*/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7600.00	0.00	29.10	7600.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	7700.00	0.00	29.10	7700.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	7800.00	0.00	29.10	7800.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	7900.00	0.00	29.10	7900.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	8000.00	0.00	29.10	8000.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	8100.00	0.00	29.10	8100.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	8200.00	0.00	29.10	8200.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	8300.00	0.00	29.10	8300.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	8400.00	0.00	29.10	8400.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	8500.00	0.00	29.10	8500.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	8600.00	0.00	29.10	8600.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	8700.00	0.00	29.10	8700.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	8800.00	0.00	29.10	8800.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	8900.00	0.00	29.10	8900.00	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
Build 10*/100' DLS	8972.02	0.00	29.10	8972.02	0.00	0.00	0.00	0.00	392688.36	564532.29	N 32 4 46.41	W 104 15 30.40
	9000.00	2.80	29.10	8999.99	0.62	0.60	0.33	10.00	392688.36	564532.62	N 32 4 46.41	W 104 15 30.39
	9100.00	12.80	29.10	9098.94	12.85	12.44	6.92	10.00	392700.80	564539.21	N 32 4 46.53	W 104 15 30.32
	9200.00	22.80	29.10	9194.03	40.41	39.11	21.77	10.00	392727.47	564554.06	N 32 4 46.80	W 104 15 30.14
	9300.00	32.80	29.10	9282.38	82.47	79.81	44.42	10.00	392768.16	564576.71	N 32 4 47.20	W 104 15 29.88
	9400.00	42.80	29.10	9361.30	137.74	133.29	74.19	10.00	392821.64	564606.47	N 32 4 47.73	W 104 15 29.53
	9500.00	52.80	29.10	9428.39	204.54	197.94	110.17	10.00	392886.28	564642.45	N 32 4 48.37	W 104 15 29.12
	9600.00	62.80	29.10	9481.61	280.84	271.78	151.27	10.00	392960.11	564683.55	N 32 4 49.10	W 104 15 28.64
Build/Turn 10*/100' DLS	9672.02	70.00	29.10	9510.42	340.39	329.41	183.35	10.00	393017.74	564715.62	N 32 4 49.87	W 104 15 28.26
	9700.00	71.54	26.62	9519.64	364.48	352.76	195.69	10.00	393041.09	564727.96	N 32 4 49.90	W 104 15 28.12
	9800.00	77.27	18.11	9546.57	455.80	441.74	232.19	10.00	393130.06	564764.46	N 32 4 50.78	W 104 15 27.70
	9900.00	83.25	9.98	9563.50	552.42	537.24	256.02	10.00	393225.55	564788.28	N 32 4 51.72	W 104 15 27.42
	10000.00	89.37	2.05	9569.94	652.00	636.36	266.43	10.00	393324.66	564798.70	N 32 4 52.70	W 104 15 27.30
Landing Point	10010.20	90.00	1.24	9570.00	662.20	646.56	266.73	10.00	393334.86	564798.99	N 32 4 52.80	W 104 15 27.29
	10100.00	90.00	1.24	9570.00	751.91	736.33	268.68	0.00	393424.63	564800.94	N 32 4 53.69	W 104 15 27.27
	10200.00	90.00	1.24	9570.00	851.82	836.31	270.85	0.00	393524.59	564803.11	N 32 4 54.68	W 104 15 27.24
	10300.00	90.00	1.24	9570.00	951.74	936.29	273.02	0.00	393624.56	564805.28	N 32 4 55.67	W 104 15 27.22
	10400.00	90.00	1.24	9570.00	1051.65	1036.26	275.19	0.00	393724.53	564807.45	N 32 4 56.66	W 104 15 27.19
	10500.00	90.00	1.24	9570.00	1151.56	1136.24	277.36	0.00	393824.49	564809.63	N 32 4 57.65	W 104 15 27.16
	10600.00	90.00	1.24	9570.00	1251.47	1236.22	279.53	0.00	393924.46	564811.80	N 32 4 58.64	W 104 15 27.14
	10700.00	90.00	1.24	9570.00	1351.39	1336.19	281.70	0.00	394024.43	564813.97	N 32 4 59.63	W 104 15 27.11
	10800.00	90.00	1.24	9570.00	1451.30	1436.17	283.87	0.00	394124.40	564816.14	N 32 5 0.62	W 104 15 27.09
	10900.00	90.00	1.24	9570.00	1551.21	1536.15	286.04	0.00	394224.36	564818.31	N 32 5 1.61	W 104 15 27.06
	11000.00	90.00	1.24	9570.00	1651.12	1636.12	288.22	0.00	394324.33	564820.48	N 32 5 2.60	W 104 15 27.03
	11100.00	90.00	1.24	9570.00	1751.04	1736.10	290.39	0.00	394424.30	564822.65	N 32 5 3.59	W 104 15 27.01
	11200.00	90.00	1.24	9570.00	1850.95	1836.07	292.56	0.00	394524.26	564824.82	N 32 5 4.57	W 104 15 26.98
	11300.00	90.00	1.24	9570.00	1950.86	1936.05	294.73	0.00	394624.23	564826.99	N 32 5 5.56	W 104 15 26.96
	11400.00	90.00	1.24	9570.00	2050.77	2036.03	296.90	0.00	394724.20	564829.16	N 32 5 6.55	W 104 15 26.93
	11500.00	90.00	1.24	9570.00	2150.69	2136.00	299.07	0.00	394824.17	564831.33	N 32 5 7.54	W 104 15 26.90
	11600.00	90.00	1.24	9570.00	2250.60	2235.98	301.24	0.00	394924.13	564833.50	N 32 5 8.53	W 104 15 26.88
	11700.00	90.00	1.24	9570.00	2350.51	2335.96	303.41	0.00	395024.10	564835.67	N 32 5 9.52	W 104 15 26.85
	11800.00	90.00	1.24	9570.00	2450.42	2435.93	305.58	0.00	395124.07	564837.84	N 32 5 10.51	W 104 15 26.83
	11900.00	90.00	1.24	9570.00	2550.34	2535.91	307.75	0.00	395224.04	564840.02	N 32 5 11.50	W 104 15 26.80
	12000.00	90.00	1.24	9570.00	2650.25	2635.89	309.93	0.00	395324.00	564842.19	N 32 5 12.49	W 104 15 26.77
	12100.00	90.00	1.24	9570.00	2750.16	2735.86	312.10	0.00	395423.97	564844.36	N 32 5 13.48	W 104 15 26.75
	12200.00	90.00	1.24	9570.00	2850.07	2835.84	314.27	0.00	395523.94	564846.53	N 32 5 14.47	W 104 15 26.72
	12300.00	90.00	1.24	9570.00	2949.99	2935.82	316.44	0.00	395623.90	564848.70	N 32 5 15.46	W 104 15 26.70
	12400.00	90.00	1.24	9570.00	3049.90	3035.79	318.61	0.00	395723.87	564850.87	N 32 5 16.45	W 104 15 26.67
	12500.00	90.00	1.24	9570.00	3149.81	3135.77	320.78	0.00	395823.84	564853.04	N 32 5 17.44	W 104 15 26.64
	12600.00	90.00	1.24	9570.00	3249.72	3235.74	322.95	0.00	395923.81	564855.21	N 32 5 18.42	W 104 15 26.62
	12700.00	90.00	1.24	9570.00	3349.64	3335.72	325.12	0.00	396023.77	564857.38	N 32 5 19.41	W 104 15 26.59
	12800.00	90.00	1.24	9570.00	3449.55	3435.70	327.29	0.00	396123.74	564859.55	N 32 5 20.40	W 104 15 26.57
	12900.00	90.00	1.24	9570.00	3549.46	3535.67	329.46	0.00	396223.71	564861.72	N 32 5 21.39	W 104 15 26.54
	13000.00	90.00	1.24	9570.00	3649.37	3635.65	331.63	0.00	396323.67	564863.89	N 32 5 22.38	W 104 15 26.51
	13100.00	90.00	1.24	9570.00	3749.29	3735.63	333.81	0.00	396423.64	564866.07	N 32 5 23.37	W 104 15 26.49
	13200.00	90.00	1.24	9570.00	3849.20	3835.60	335.98	0.00	396523.61	564868.24	N 32 5 24.36	W 104 15 26.46
	13300.00	90.00	1.24	9570.00	3949.11	3935.58	338.15	0.00	396623.58	564870.41	N 32 5 25.35	W 104 15 26.44
	13400.00	90.00	1.24	9570.00	4049.02	4035.56	340.32	0.00	396723.54	564872.58	N 32 5 26.34	W 104 15 26.41
	13500.00	90.00	1.24	9570.00	4148.94	4135.53	342.49	0.00	396823.51	564874.75	N 32 5 27.33	W 104 15 26.38
	13600.00	90.00	1.24	9570.00	4248.85	4235.51	344.66	0.00	396923.48	564876.92	N 32 5 28.32	W 104 15 26.36
	13700.00	90.00	1.24	9570.00	4348.76	4335.49	346.83	0.00	397023.44	564879.09	N 32 5 29.31	W 104 15 26.33
	13800.00	90.00	1.24	9570.00	4448.67	4435.46	349.00	0.00	397123.41	564881.26	N 32 5 30.30	W 104 15 26.31
	13900.00	90.00	1.24	9570.00	4548.59	4535.44	351.17	0.00	397223.38	564883.43	N 32 5 31.29	W 104 15 26.28
	14000.00	90.00	1.24	9570.00	4648.50	4635.41	353.34	0.00	397323.35	564885.60	N 32 5 32.27	W 104 15 26.25
	14100.00	90.00	1.24	9570.00	4748.41	4735.39	355.52	0.00	397423.31	564887.77	N 32 5 33.26	W 104 15 26.23
	14200.00	90.00	1.24	9570.00	4848.32	4835.37	357.69	0.00	397523.28	564889.94	N 32 5 34.25	W 104 15 26.20
	14300.00	90.00	1.24	9570.00	4948.24	4935.34	359.86	0.00	397623.25	564892.11	N 32 5 35.24	W 104 15 26.17
	14400.00	90.00	1.24	9570.00	5048.15	5035.32	362.03	0.00	397723.22	564894.28	N 32 5 36.23	W 104 15 26.15
	14500.00	90.00	1.24	9570.00	5148.06	5135.30	364.20	0.00	397823.18	564896.45	N 32 5 37.22	W 104 15 26.12
	14600.00	90.00	1.24	9570.00	5247.97	5235.27	366.37	0.00	397923.15	564898.63	N 32 5 38.21	W 104 15 26.10
	14700.00	90.00	1.24	9570.00	5347.88	5335.25	368.54	0.00	398023.12	564900.80	N 32 5 39.20	W 104 15 26.07
	14800.00	90.00	1.24	9570.00	5447.80	5435.23	370.71	0.00	398123.08	564902.97	N 32 5 40.19	W 104 15 26.04
	14900.00	90.00	1.24	9570.00	5547.71	5535.20	372.88	0.00	398223.05	564905.14	N 32 5 41.18	W 104 15 26.02
	15000.00	90.00	1.24									

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NIS (ft)	EW (ft)	DLS (%/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	18000.00	90.00	1.24	9570.00	8645.00	8634.47	440.18	0.00	401322.03	564972.43	N 32 6 11.85	W 104 15 25.21
	18100.00	90.00	1.24	9570.00	8744.91	8734.45	442.35	0.00	401422.00	564974.60	N 32 6 12.84	W 104 15 25.18
	18200.00	90.00	1.24	9570.00	8844.82	8834.42	444.52	0.00	401521.97	564976.77	N 32 6 13.82	W 104 15 25.16
	18300.00	90.00	1.24	9570.00	8944.73	8934.40	446.70	0.00	401621.94	564978.94	N 32 6 14.81	W 104 15 25.13
	18400.00	90.00	1.24	9570.00	9044.65	9034.38	448.87	0.00	401721.90	564981.12	N 32 6 15.80	W 104 15 25.11
	18500.00	90.00	1.24	9570.00	9144.56	9134.35	451.04	0.00	401821.87	564983.29	N 32 6 16.79	W 104 15 25.08
	18600.00	90.00	1.24	9570.00	9244.47	9234.33	453.21	0.00	401921.84	564985.46	N 32 6 17.78	W 104 15 25.05
	18700.00	90.00	1.24	9570.00	9344.38	9334.31	455.38	0.00	402021.81	564987.63	N 32 6 18.77	W 104 15 25.03
	18800.00	90.00	1.24	9570.00	9444.30	9434.28	457.55	0.00	402121.77	564989.80	N 32 6 19.76	W 104 15 25.00
	18900.00	90.00	1.24	9570.00	9544.21	9534.26	459.72	0.00	402221.74	564991.97	N 32 6 20.75	W 104 15 24.98
	19000.00	90.00	1.24	9570.00	9644.12	9634.24	461.89	0.00	402321.71	564994.14	N 32 6 21.74	W 104 15 24.95
	19100.00	90.00	1.24	9570.00	9744.03	9734.21	464.06	0.00	402421.67	564996.31	N 32 6 22.73	W 104 15 24.92
	19200.00	90.00	1.24	9570.00	9843.94	9834.19	466.23	0.00	402521.64	564998.48	N 32 6 23.72	W 104 15 24.90
	19300.00	90.00	1.24	9570.00	9943.86	9934.17	468.41	0.00	402621.61	565000.65	N 32 6 24.71	W 104 15 24.87
	19400.00	90.00	1.24	9570.00	10043.77	10034.14	470.58	0.00	402721.58	565002.82	N 32 6 25.70	W 104 15 24.85
Cimarex Bonnie 35 Federal Com 2H - PBHL	19427.97	90.00	1.24	9570.00	10071.72	10062.11	471.18	0.00	402749.54	565003.43	N 32 6 25.97	W 104 15 24.84

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
 Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	19427.974	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Bonnie 35 Federal Com 2H Rev1

Cimarex Bonnie 35 Federal Com 2H Rev1 JP 6Jan2016 Proposal Geodetic Report
(Non-Def Plan)



Report Date:	January 06, 2016 - 03:13 PM	Survey / DLS Computation:	Minimum Curvature / Lubinski
Client:	Cimarex	Vertical Section Azimuth:	2.681 ° (Grid North)
Field:	NM Eddy County (NAD 83)	Vertical Section Origin:	0.000 ft, 0,000 ft
Structure / Slot:	Cimarex Bonnie 35 Federal Com 2H / Cimarex Bonnie 35 Federal Com 2H	TVD Reference Datum:	Ground Elevation
Well:	Cimarex Bonnie 35 Federal Com 2H	TVD Reference Elevation:	3341.200 ft above MSL
Borehole:	Original Borehole	Seabed / Ground Elevation:	3341.200 ft above MSL
UWI / API#:	Unknown / Unknown	Magnetic Declination:	7.692 °
Survey Name:	Cimarex Bonnie 35 Federal Com 2H Rev1 JP 6Jan2016	Total Gravity Field Strength:	998.4282mgn (9.80685 Based)
Survey Date:	December 01, 2014	Gravity Model:	GARM
Tort / AHD / DDI / ERD Ratio:	103.818 ° / 10125.903 ft / 6.329 / 1.058	Total Magnetic Field Strength:	48200.464 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	Magnetic Dip Angle:	59.822 °
Location Lat / Long:	N 32° 4' 46.40817", W 104° 15' 30.39776"	Declination Date:	February 09, 2015
Location Grid N/E Y/X:	N 392688.360 ftUS, E 564532.290 ftUS	Magnetic Declination Model:	HDGM 2014
CRS Grid Convergence Angle:	0.0398 °	North Reference:	Grid North
Grid Scale Factor:	0.99990971	Grid Convergence Used:	0.0398 °
Version / Patch:	2.8.572.0	Total Corr Mag North->Grid North:	7.6525 °
		Local Coord Referenced To:	Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (*/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL [1010' FEL, 200' FSL]	0.00	0.00	29.10	0.00	0.00	0.00	0.00	N/A	392888.36	564532.29	N 32 4 46.41	W 104 15 30.40
Build 10*/100' DLS	8972.02	0.00	29.10	8972.02	0.00	0.00	0.00	0.00	392888.36	564532.29	N 32 4 46.41	W 104 15 30.40
Build/Turn 10*/100' DLS	9672.02	70.00	29.10	9510.42	340.39	329.41	183.35	10.00	393017.74	564715.62	N 32 4 49.67	W 104 15 28.26
Landing Point Cimarex Bonnie	10010.20	90.00	1.24	9570.00	662.20	646.56	286.73	10.00	393334.86	564798.99	N 32 4 52.80	W 104 15 27.29
35 Federal Com 2H - PBHL	19427.97	90.00	1.24	9570.00	10071.72	10062.11	471.18	0.00	402749.54	565003.43	N 32 6 25.97	W 104 15 24.84

Survey Type: Non-Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	1	0.000	19427.974	1/100.000	30.000	30.000	SLB_MWD-STD	Original Borehole / Cimarex Bonnie 35 Federal Com 2H Rev1

Drilling 12-1/4" hole
below 13 3/8" Casing

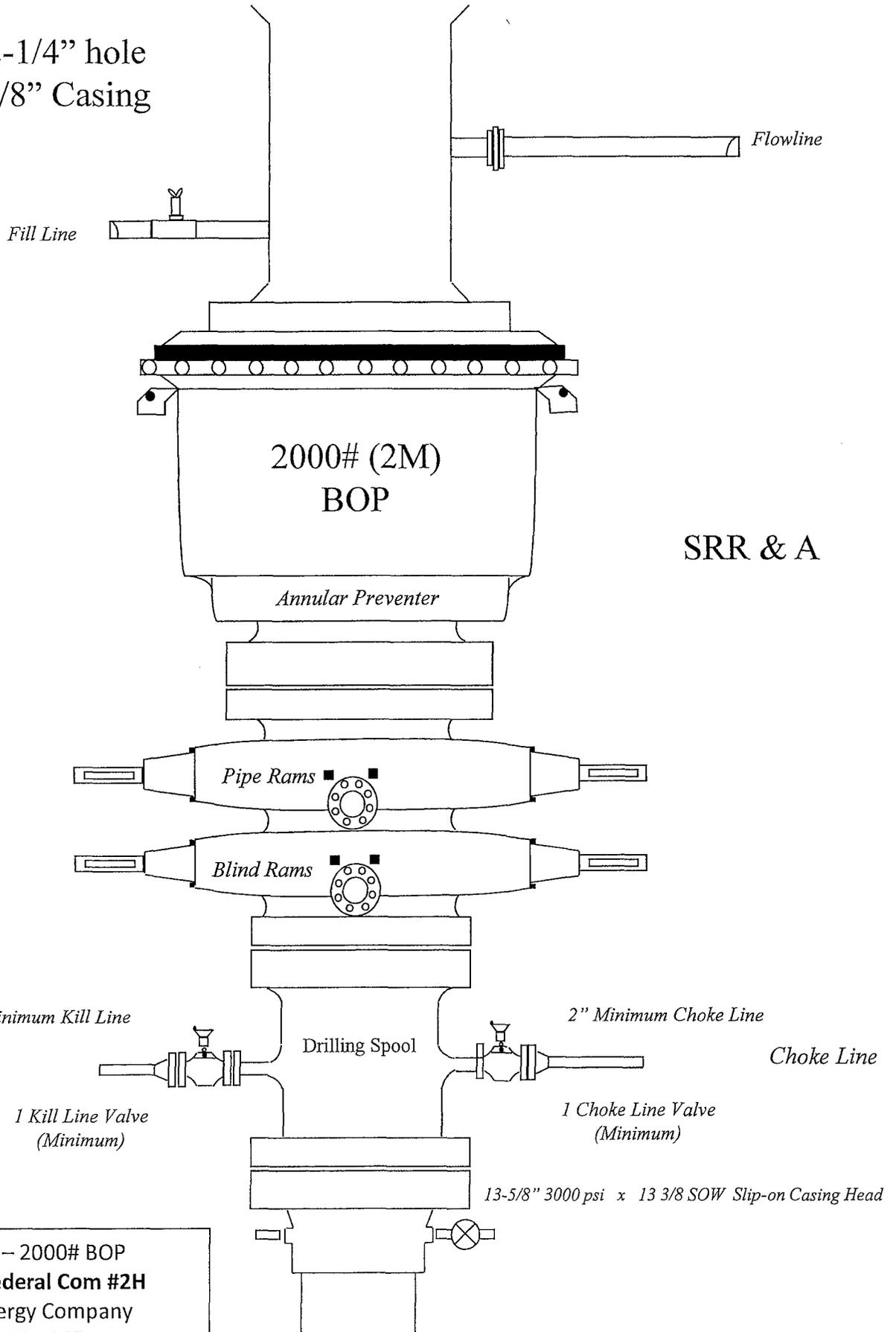


Exhibit E-1 – 2000# BOP
Bonnie 35 Federal Com #2H
Cimarex Energy Company
Sec 35-25S-26E
Eddy County, NM

Drilling 8-3/4" hole
below 9 5/8" Casing

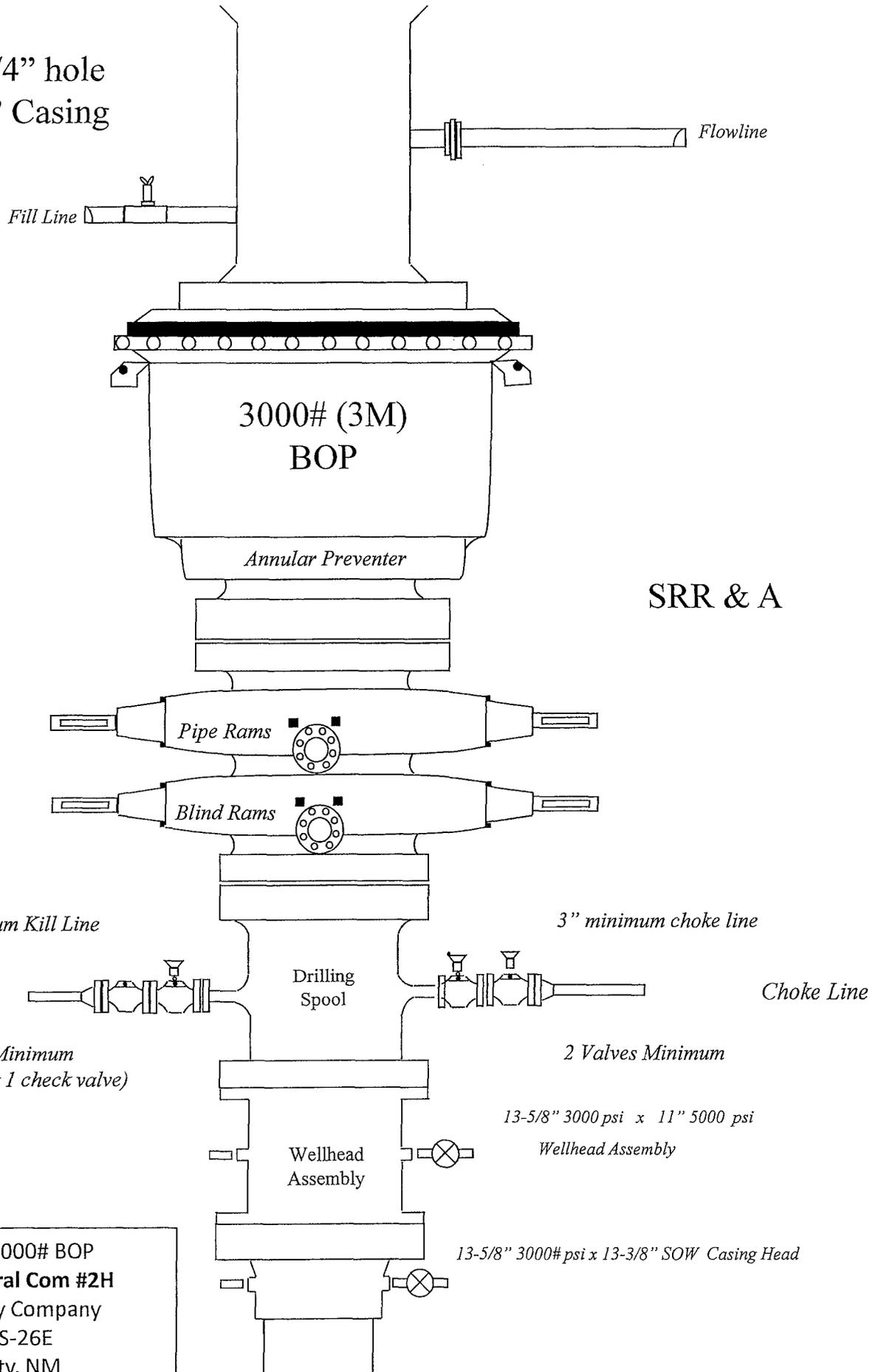


Exhibit E-1 – 3000# BOP
Bonnie 35 Federal Com #2H
Cimarex Energy Company
Sec 35-25S-26E
Eddy County, NM

Drilling 6" hole below 7" Casing

Fill Line

Flowline

5000# (5M)
BOP

Annular Preventer

SRR & A

Pipe Rams

Blind Rams

2" Minimum Kill Line

3" minimum choke line

Kill Line

Drilling Spool

Choke Line

2 Valves Minimum
(HCR Required)

2 Valves and a check valve

Wellhead Assembly

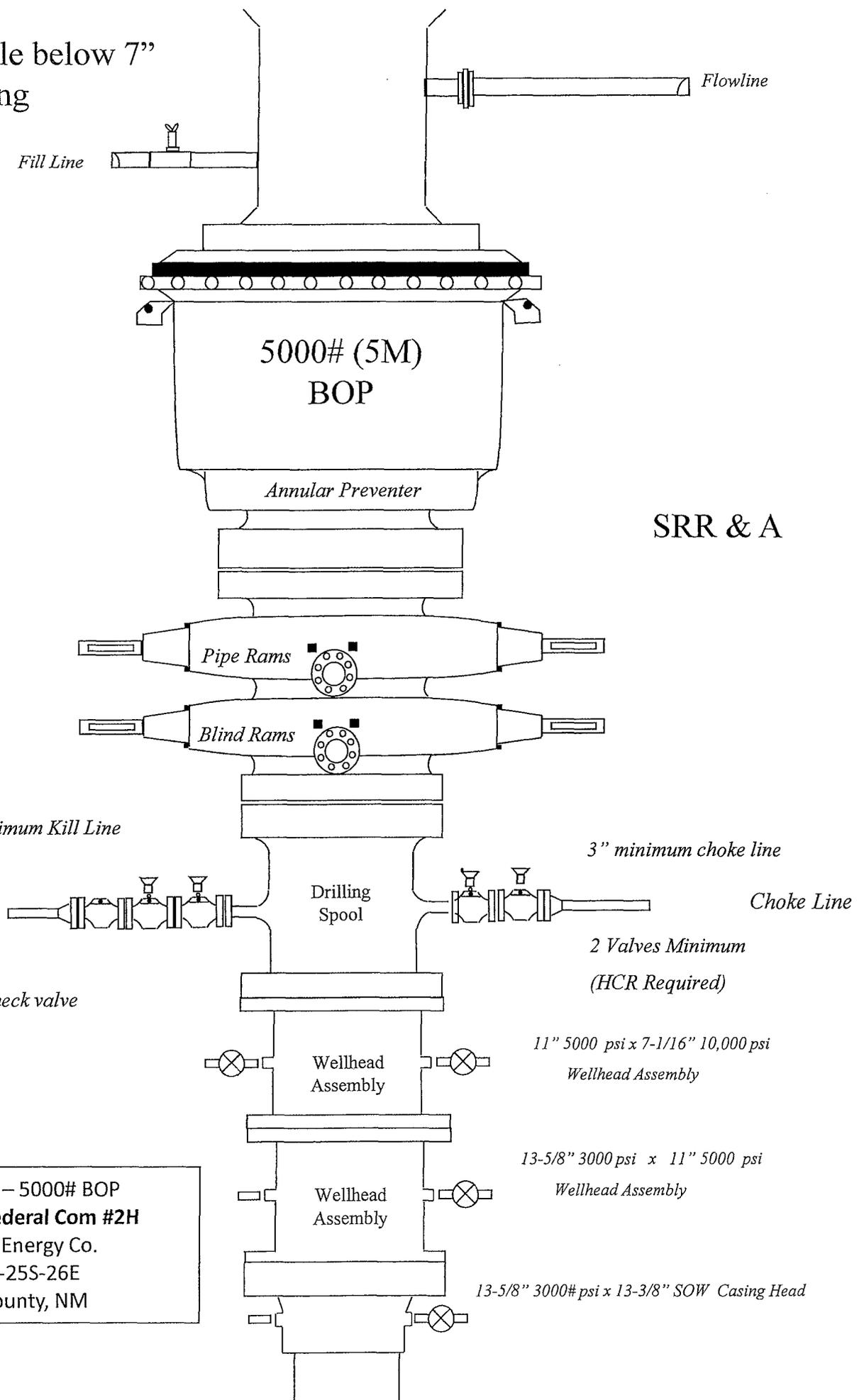
11" 5000 psi x 7-1/16" 10,000 psi
Wellhead Assembly

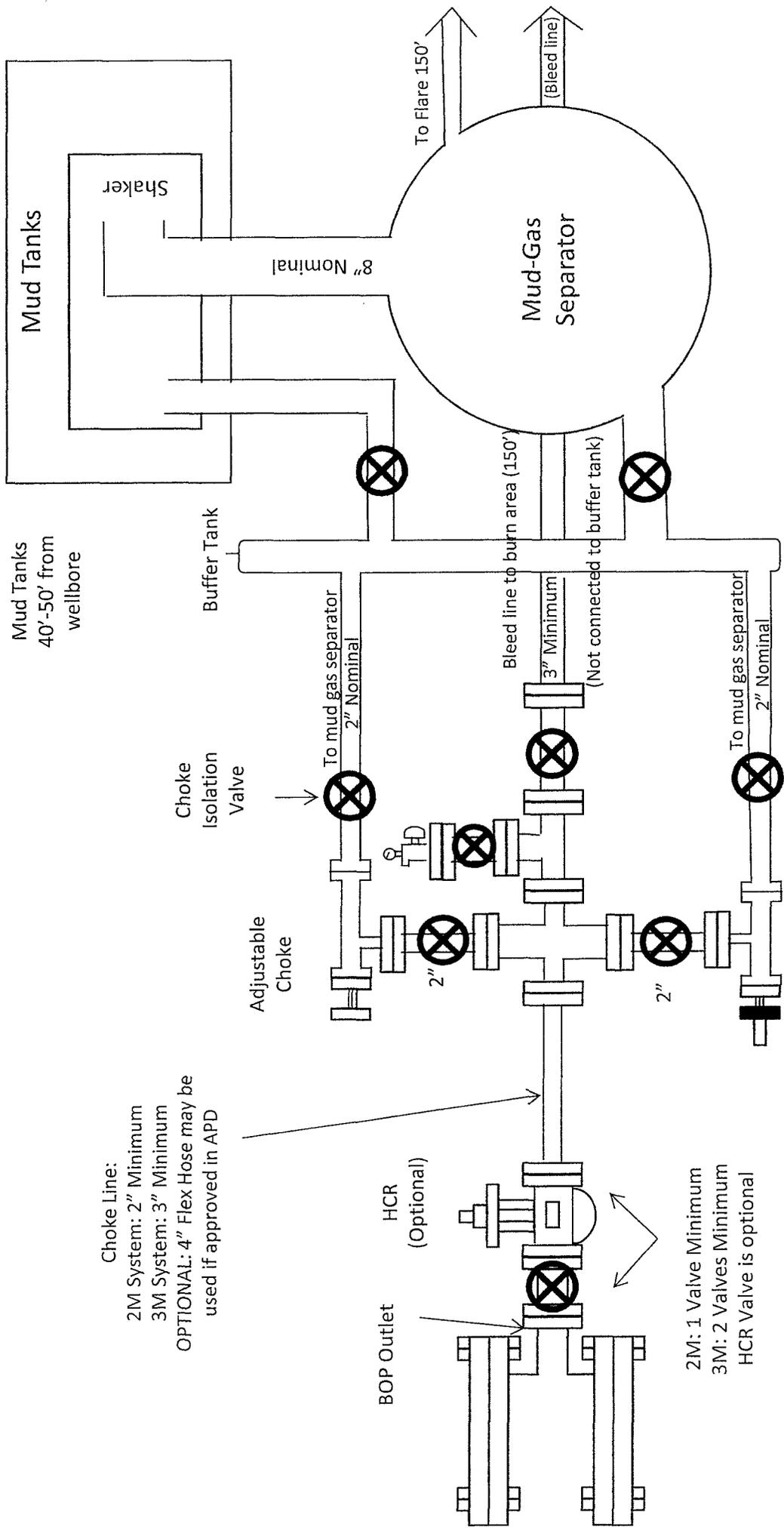
Wellhead Assembly

13-5/8" 3000 psi x 11" 5000 psi
Wellhead Assembly

13-5/8" 3000# psi x 13-3/8" SOW Casing Head

Exhibit E-1 – 5000# BOP
Bonnie 35 Federal Com #2H
Cimarex Energy Co.
Sec 35-25S-26E
Eddy County, NM





Choke Line:
 2M System: 2" Minimum
 3M System: 3" Minimum
 OPTIONAL: 4" Flex Hose may be used if approved in APD

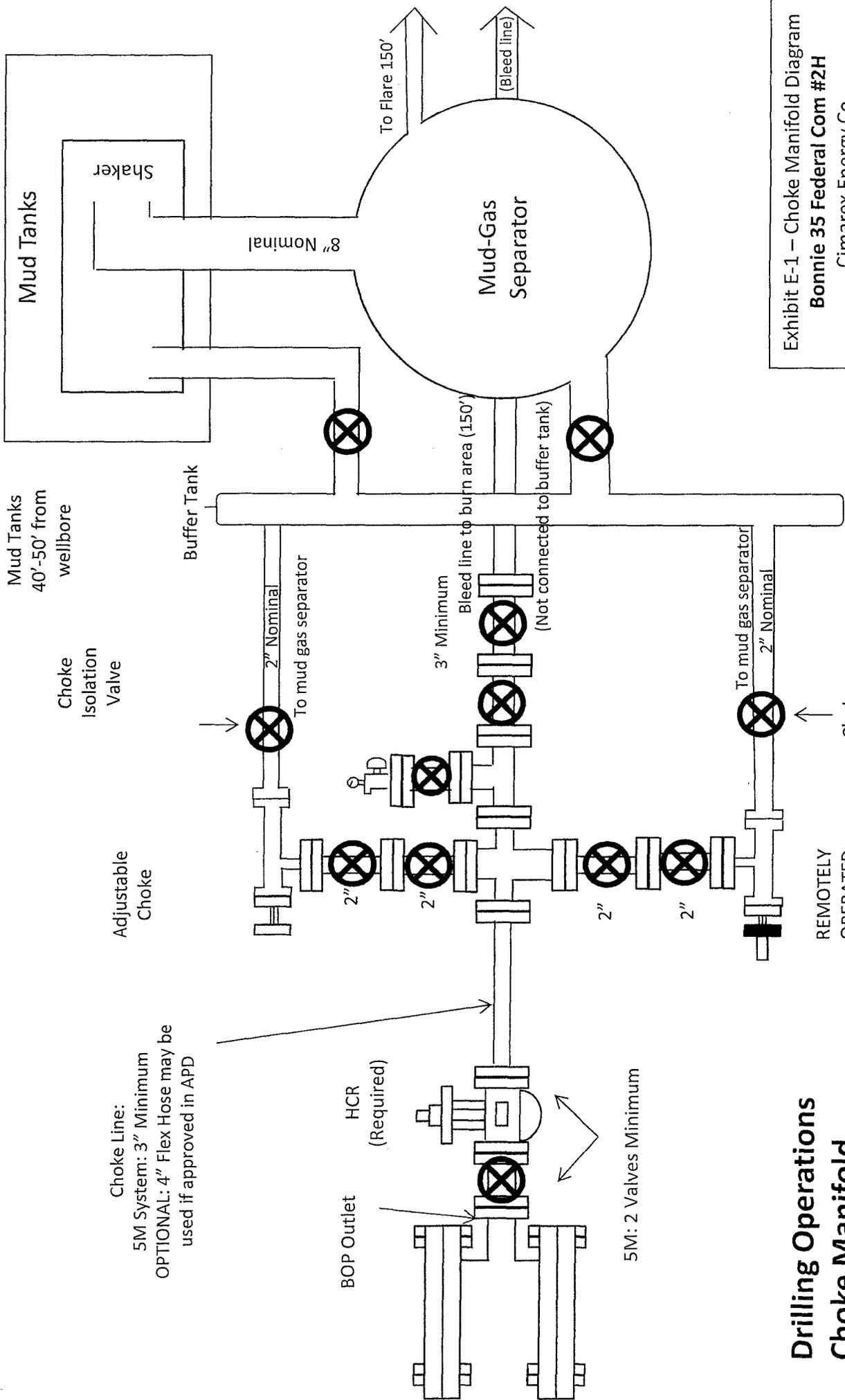
BOP Outlet
 HCR (Optional)

2M: 1 Valve Minimum
 3M: 2 Valves Minimum
 HCR Valve is optional

REMOTELY OPERATED Adjustable Choke

Drilling Operations Choke Manifold 2M/3M Service

Exhibit E-1 – Choke Manifold Diagram
Bonnie 35 Federal Com #2H
 Cimarex Energy Company
 Sec 35-25S-26E
 Eddy County, NM



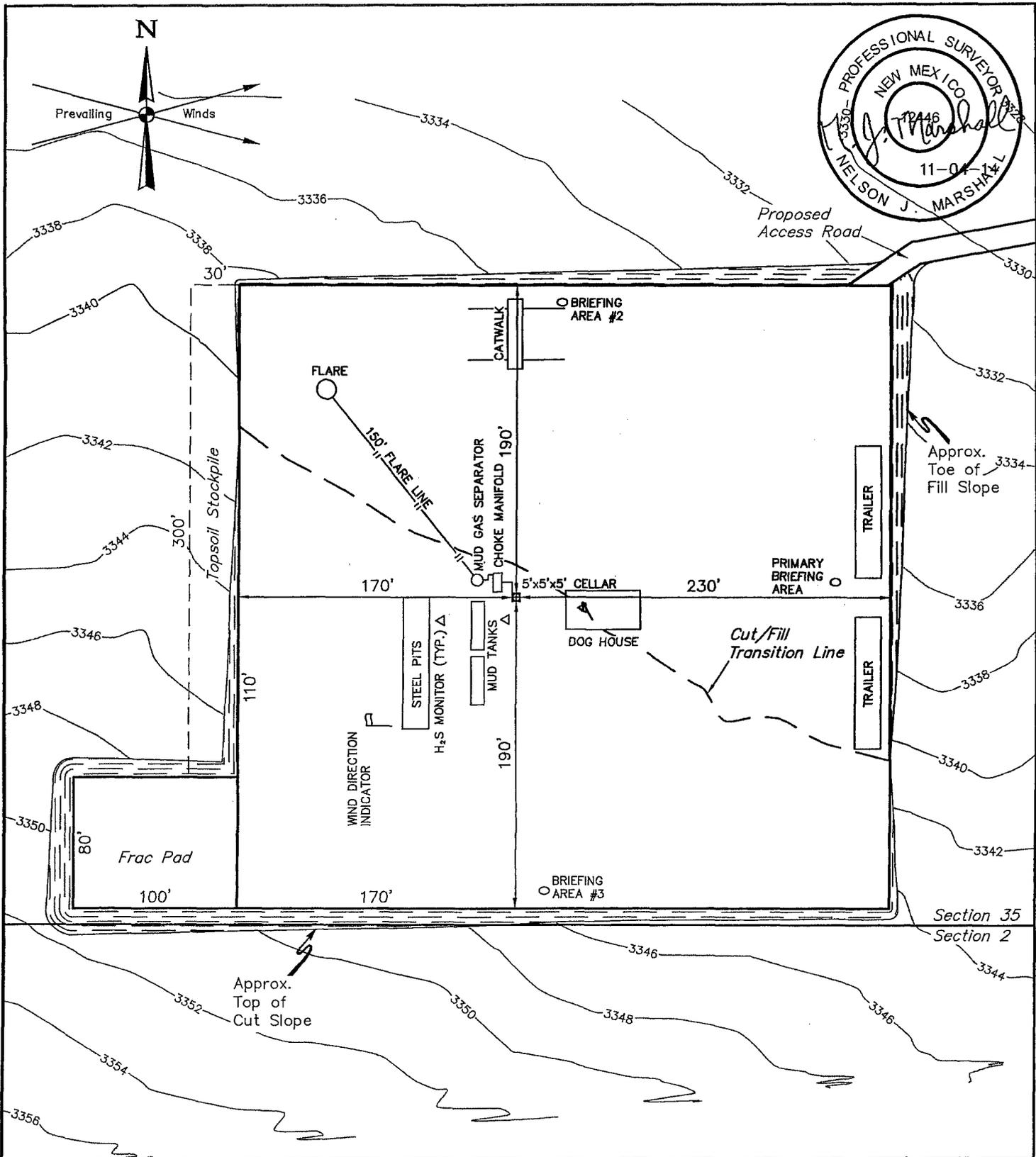
Choke Line:
 5M System: 3" Minimum
 OPTIONAL: 4" Flex Hose may be used if approved in APD

BOP Outlet
 HCR (Required)

5M: 2 Valves Minimum

**Drilling Operations
 Choke Manifold
 5M Service**

Exhibit E-1 – Choke Manifold Diagram
Bonnie 35 Federal Com #2H
 Cimarex Energy Co.
 Sec 35-25S-26E
 Eddy County, NM



- NOTES:**
- Flare pit is to be located a min. of 160' from the wellhead.
 - Contours shown at 2' intervals.

CIMAREX ENERGY CO.
BONNIE 35 FEDERAL COM #2H
SECTION 35, T25S, R26E, N.M.P.M.
200' FSL 1010' FEL



UELS, LLC
 Corporate Office * 85 South 200 East
 Vernal, UT 84078 * (435) 789-1017

DRAWN BY: S.F.	DATE DRAWN: 10-29-14
SCALE: 1" = 80'	REVISED: 00-00-00
TYPICAL RIG LAYOUT	
EXHIBIT D	

Location will be reclaimed after all wells drilled from pad.

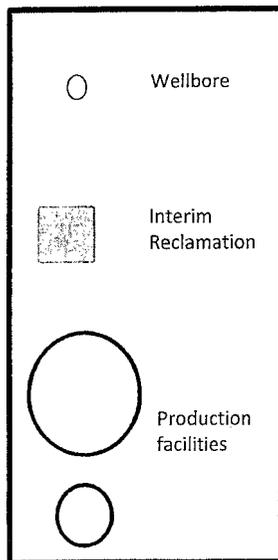
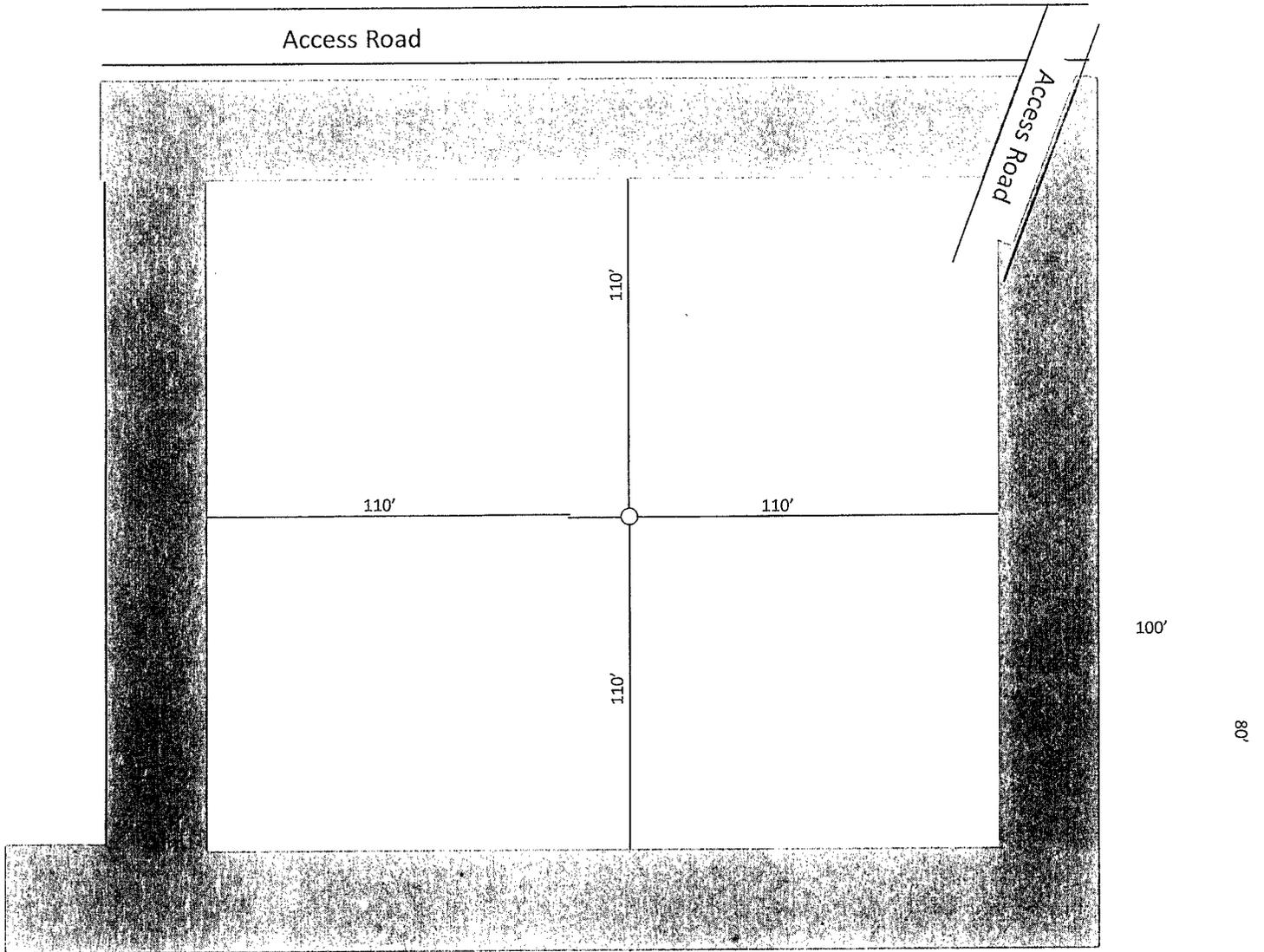


Exhibit D-1
Interim Reclamation Diagram
Bonnie 35 Federal Com #2H
Cimarex Energy Company
Sec 35-25S-26E
Eddy County, NM

Surface Use Plan
Bonnie 35 Federal Com #2H

Cimarex Energy Co.
UL: P, Sec. 35, 25S, 26E
Eddy Co., NM

The following surface use plan of operations will be followed and carried out once the APD is approved. No other disturbance will be created other than what is submitted in this surface use plan without approval. If any other disturbance is needed after the APD is approved, a BLM approved sundry notice or right of way application will be submitted for approval prior to any new surface disturbance.

1. Existing Roads:

- Please see Exhibit B and C-1 for existing access road planned to be used to access the proposed project.
- Cimarex Energy will improve or maintain existing roads in a condition the same as or better than before the operations began. Cimarex Energy will repair pot holes, etc. All existing structures on the entire access route such as cattleguards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use.
- Cimarex Energy will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or other events.
- Cimarex Energy will obtain written BLM approval prior to the application of surfactants, binding agents, or other dust suppression chemicals on the roadways.
- The maximum width of the driving surface will be 14'. The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1' deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.
- Existing access road route to the proposed project is depicted on the public access point map if applicable. Improvements to the driving surface will be done where necessary. No new surface disturbance will be done, unless otherwise noted in the New or Reconstructed Access Roads section of the surface use plan.
Beginning at the intersection of Old Cavern highway and existing road to the west located in the NW 1/4 of sec. 1 -T26S-R26E. Proceed in a west direction approx 0.2 miles to the junct. of this road and the beginning of proposed access road to the north. Follow road flags in a northerly, then westerly, then southwesterly direction approx 1242' to proposed location.

2. New or Reconstructed Access Roads:

- A new road will be constructed for this project.
- Cimarex Energy plans to construct 1218.63' of new on-lease access road to service the well. The planned access road does not cross lease boundaries, a right of way grant will not be acquired from the BLM.
- The maximum width of the driving surface will be 14'. The road will be crowned and ditched with a 2% slope from the tip of the crown to the edge of the driving surface. The ditches will be 1' deep with 3:1 slopes. The driving surface will be made of 6" rolled and compacted caliche.
- Proposed and existing access road route to the proposed wellsite is depicted on Exhibit C-2. Improvements to the driving surface will be done where necessary. No new surface disturbance will be done without prior approval from the BLM.
- The operator will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or other events.

3. Well Radius Map

Please see Exhibit A for wells within one mile of the proposed well SHL and BHL.

Surface Use Plan
Bonnie 35 Federal Com #2H
Cimarex Energy Co.
UL: P, Sec. 35, 25S, 26E
Eddy Co., NM

4. Proposed or Existing Production Facilities:

- If on completion this well is a producer, a tank battery will be used and the necessary production equipment will be installed and production will be sent to the Bonnie 35 CTB.
- Please see Exhibit P and Exhibit P-1 for location of the off pad central tank battery.
- Cimarex Energy proposes to install two 4 inch buried HP polylines down existing lease road to the Bonnie 35 CTB battery.
- An additional road 416.63' to access the battery will be constructed. Please see Exhibit P-2.
- Allocation will be based on well test. Route is on lease, please see Exhibit G-1. Any changes to on lease route will be submitted via sundry notice. If route is off lease, a right of way will be submitted to the BLM for approval.

5. Gas Pipeline

- No pipeline proposed.

6. Flowlines

- Cimarex Energy plans to construct on lease flowlines to service the well.
- Specifications of Polyline: 1 HP polyline for oil, gas, and water production. 1 HP polyline for gas lift.
- Both lines will be buried 10'-20' North of the access road.
- Length of Gas Lift Line: 2084.16'
- Length of Flowlines: 2084.16'
- MAOP: 1500 psi.
- Anticipated working pressure: 200-300 psi.

7. Salt Water Disposal

- No pipeline proposed.

8. Electric Lines

- Cimarex Energy plans to construct an off-lease electric line to service the well. The proposed electric line does cross lease boundaries, a right of way grant will be submitted to and obtained from the BLM.
- Cimarex Energy plans to install an overhead electric line from the proposed well to an existing overhead electric line located in SW of section Section 35. The proposed electric line will be 7359.41' in length, 1-40 poles, 480 volt, 4 wire, 3 phase. The electric line will exit off the West side of the well location and travel West 7359.41' until it would intercept the existing electric line.
- The electric line will be routed on the North side of lease road and 25-35' from and parallel to lease road.
- Route is within lease boundaries, a right of way grant will not be acquired from the BLM. Please see Exhibit E. Any changes to E-Line route will be submitted via sundry notice.

9. Water

Cimarex Energy plans to purchase fresh water from a 3rd party company. A local commercial source will truck water utilizing the access road. Please see Exhibit C-1 for access road route.

10. Construction Material

If possible, native caliche will be obtained from the excavation of drill site. The primary way of obtaining caliche will be by "turning over" the location. This means caliche will be obtained from the actual well site. A caliche permit will be obtained from BLM prior to pushing up any caliche. 2400 cu yds is the max amount of caliche needed for pad and roads. Amount will vary for each pad. The procedure below has been approved by BLM personnel:

- The top 6 inches of topsoil is pushed off and stockpiled along the side of the location.
- An approximate 120' x 120' area is used within the proposed well site to remove caliche.
- Subsoil is removed and piled alongside the 120' by 120' area within the pad site.
- When caliche is found, material will be stockpiled within the pad site to build the location and road.
- Then subsoil is pushed back in the hole and caliche is spread accordingly across entire location and road.
- Once well is drilled, the stockpiled top soil will be used for interim reclamation and spread along areas where caliche is picked up and the location size is reduced. Neither caliche nor subsoil will be stockpiled outside of the well pad. Topsoil will be stockpiled along the edge of the pad as depicted in Exhibit D – Rig Layout Diagram.

In the event that no caliche is found onsite, caliche will be hauled in from BLM-approved caliche pit.

Surface Use Plan
Bonnie 35 Federal Com #2H
Cimarex Energy Co.
UL: P, Sec. 35, 25S, 26E
Eddy Co., NM

11. Methods of Handling Waste

- Drilling fluids, produced oil, and water from the well during drilling and completion operations will be stored safely and disposed of properly in a NMOCD approved disposal facility.
- Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around well site will be collected for disposal.
- Human waste and grey water will be properly contained and disposed of properly at a state approved disposal site.
- After drilling and completion operations, trash, chemicals, salts, frac sand and other waste will be removed and disposed of properly at a state approved disposal site.
- The well will be drilled utilizing a closed loop system. Drill cuttings will be properly disposed of into steel tanks and taken to an NMOCD approved disposal facility.

12. Ancillary Facilities:

No camps or airstrips to be constructed.

13. Well Site Layout:

- Exhibit D: Rig Layout
- Exhibit D-2: Well Site layout plat
- Mud pits in the closed circulation system will be steel pits and the cuttings will be stored in steel containment pits.
- Cuttings will be stored in steel pits until they are hauled to a state-approved disposal facility.
- If the well is a producer, those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements. Exhibit D-1: Interim Reclamation Diagram.

14. Interim and Final Reclamation

- Rehabilitation of the location will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.
- In areas planned for interim and final reclamation, surfacing materials will be removed and returned to a mineral pit or recycled to repair or build roads and well pads.
- Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.
- If the well is a dry hole, the pad and road area will be recountoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.
- Should the well be a producer, those areas of the location not essential to production facilities and operations will be reclaimed and seeded per BLM requirements. Exhibit D-1 illustrates the proposed Interim Reclamation.

15. Surface Ownership:

- The wellsite is on surface owned by BLM, Carlsbad NM, 575-234-5972.
- A copy of Surface Use Agreement has been given to the surface owner.
- The land is used mainly for farming, cattle ranching, recreational use, and oil and gas production.

16. Other Information:

- Topography consists of a sloping plane with loose tan sands. Vegetation is mainly yucca, mesquite and shin oak.
- Archeological survey will be conducted for the well pad/location and proposed road and the arch report will be filed with the BLM.
- There are no known dwellings within 1½ miles of this location.

17. On Site Notes and Information:

Onsite performed on 9-11-14, Barry Hunt, Jesse Rice, and UINTAH surveys on location. Moved locations 100 ft. west due to drainage to the east. V-Door North. Frac pad southwest corner (West). Top soil west. Interim reclamation: All sides. Access road from northeast corner, east, to an OXY road. Gas lift/Production line and E-line staked from northwest corner, west to #4, 5, 6

BEGINNING AT THE INTERSECTION OF OLD CAVERN HIGHWAY AND AN EXISTING ROAD TO THE WEST LOCATED IN THE NW 1/4 OF SECTION 1, T26S, R26E, N.M.P.M. PROCEED IN A WESTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND THE BEGINNING OF THE PROPOSED ACCESS ROAD TO THE NORTH; FOLLOW ROAD FLAGS IN A NORTHERLY, THEN WESTERLY, THEN SOUTHWESTERLY DIRECTION APPROXIMATELY 1,242' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM THE INTERSECTION OF OLD CAVERN HIGHWAY AND AN EXISTING ROAD TO THE WEST LOCATED IN THE NW 1/4 OF SECTION 1, T26S, R26E, N.M.P.M. TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 0.4 MILES.

CIMAREX ENERGY CO.

**BONNIE 35 FEDERAL COM #1H, #2H & #3H
SECTION 35, T25S, R26E, N.M.P.M.
SE 1/4 SE 1/4**

DRAWN BY: N.W.

DATE DRAWN: 10-31-14

REVISED: 00-00-00

ROAD DESCRIPTION

EXHIBIT J



UELS, LLC

Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

**PECOS DISTRICT
CONDITIONS OF APPROVAL**

NEW OIL CONSERVATION
ARTESIA DISTRICT
MAR 27 2017

OPERATOR'S NAME:	Cimarex Energy Company	RECEIVED
LEASE NO.:	NMNM026870	
WELL NAME & NO.:	2H-Bonnie 35 Federal Com	
SURFACE HOLE FOOTAGE:	200'/S & 1010'/E	
BOTTOM HOLE FOOTAGE:	330'/N & 660'/E	
LOCATION:	Section 35, T.25 S., R.26 E., NMPM	
COUNTY:	Eddy County, New Mexico	

TABLE OF CONTENTS

Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- General Provisions**
- Permit Expiration**
- Archaeology, Paleontology, and Historical Sites**
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 - Cement Requirements
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- Production (Post Drilling)**
 - Well Structures & Facilities
 - Electric Line
 - Buried Pipeline
- Interim Reclamation**
- Final Abandonment & Reclamation**

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

Communitization Agreement

A Communitization Agreement covering the acreage dedicated to this well must be filed for approval with the BLM. The effective date of the agreement shall be prior to any sales. In addition, the well sign shall include the surface and bottom hole lease numbers. If the Communitization Agreement number is known, it shall also be on the sign. If not, it shall be placed on the sign when the sign is replaced.

Cave and Karst

** Depending on location, additional Drilling, Casing, and Cementing procedures may be required by engineering to protect critical karst groundwater recharge areas.

Cave/Karst Surface Mitigation

The following stipulations will be applied to minimize impacts during construction, drilling and production.

Construction:

In the advent that any underground voids are opened up during construction activities, construction activities will be halted and the BLM will be notified immediately.

No Blasting:

No blasting will be utilized for pad construction. The pad will be constructed and leveled by adding the necessary fill and caliche.

Pad Berming:

The entire perimeter of the well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad.

- The compacted berm shall be constructed at a minimum of 12 inches high with impermeable mineral material (e.g. caliche).
- No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad.
- The topsoil stockpile shall be located outside the bermed well pad.
- Topsoil, either from the well pad or surrounding area, shall not be used to construct the berm.
- No storm drains, tubing or openings shall be placed in the berm.
- If fluid collects within the bermed area, the fluid must be vacuumed into a safe container and disposed of properly at a state approved facility.
- The integrity of the berm shall be maintained around the surfaced pad throughout the life of the well and around the downsized pad after interim reclamation has been completed.
- Any access road entering the well pad shall be constructed so that the integrity of the berm height surrounding the well pad is not compromised. (Any access road crossing the berm cannot be lower than the berm height.)

Tank Battery Liners and Berms:

Tank battery locations and all facilities will be lined and bermed. A 20 mil permanent liner will be installed with a 4 oz. felt backing to prevent tears or punctures. Tank battery berms must be large enough to contain 1 ½ times the content of the largest tank.

Leak Detection System:

A method of detecting leaks is required. The method could incorporate gauges to measure loss, siting valves and lines so they can be visually inspected, or installing electronic sensors to alarm when a leak is present. Leak detection plan will be submitted to BLM for approval.

Automatic Shut-off Systems:

Automatic shut off, check valves, or similar systems will be installed for pipelines and tanks to minimize the effects of catastrophic line failures used in production or drilling.

Cave/Karst Subsurface Mitigation

The following stipulations will be applied to protect cave/karst and ground water concerns:

Rotary Drilling with Fresh Water:

Fresh water will be used as a circulating medium in zones where caves or karst features are expected. SEE ALSO: Drilling COAs for this well.

Directional Drilling:

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone. SEE ALSO: Drilling COAs for this well.

Lost Circulation:

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported in the drilling report.

Regardless of the type of drilling machinery used, if a void of four feet or more and circulation losses greater than 70 percent occur simultaneously while drilling in any cave-bearing zone, the BLM will be notified immediately by the operator. The BLM will assess the situation and work with the operator on corrective actions to resolve the problem.

Abandonment Cementing:

Upon well abandonment in high cave karst areas additional plugging conditions of approval may be required. The BLM will assess the situation and work with the operator to ensure proper plugging of the wellbore.

Pressure Testing:

Annual pressure monitoring will be performed by the operator on all casing annuli and reported in a sundry notice. If the test results indicated a casing failure has occurred, remedial action will be undertaken to correct the problem to the BLM's approval.

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5909 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

D. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

E. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation. The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

G. ON LEASE ACCESS ROADS

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed twenty-five (25) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

Turnouts

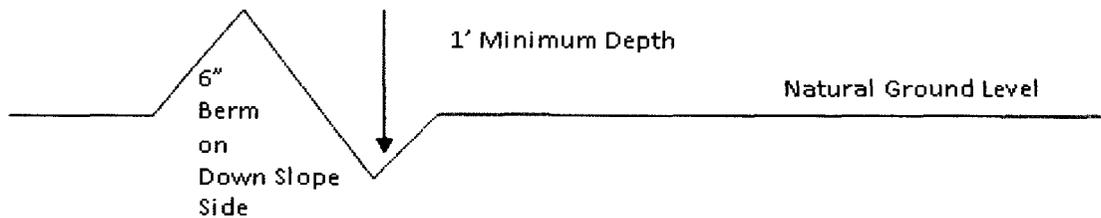
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill out-sloping and in-sloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Cattleguards

An appropriately sized cattleguard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattleguards on the access road route shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fences.

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Construction Steps

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

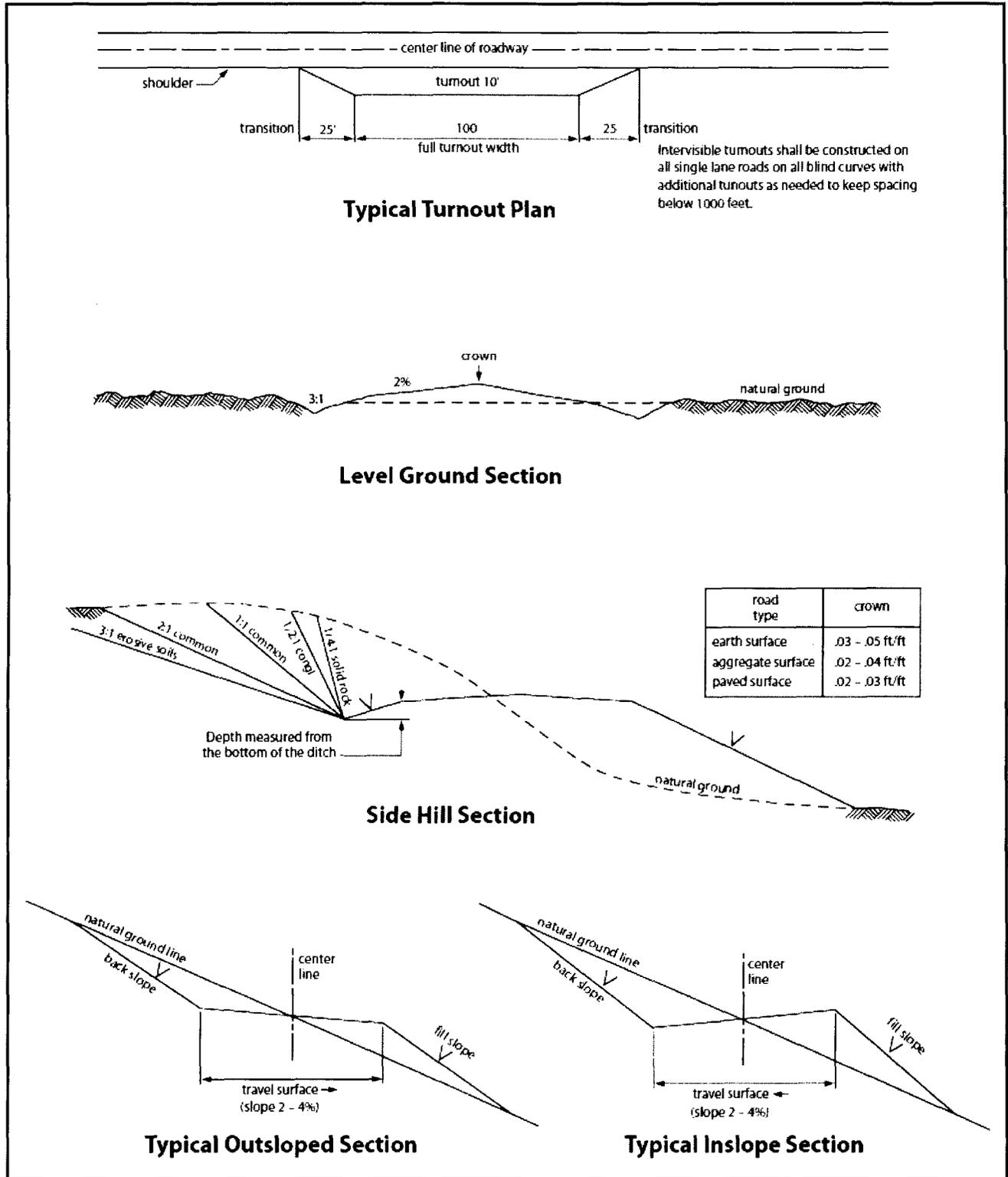


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

1. **Hydrogen Sulfide (H₂S) monitors shall be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.**
2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works is located, this does not include the dog house or stairway area.
4. **The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.).

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) for Water Basin:

After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Abnormal pressures may be encountered within the Wolfcamp formation.

Possibility of water flows in the Salado and Castile.

Possibility of lost circulation in the Delaware, Salado and Castile.

1. The 13-3/8 inch surface casing shall be set at approximately 450 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt. Excess calculates to 14% - Additional cement may be required.**
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
 - c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is:

- Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst.**

High Cave/Karst: A MINIMUM OF TWO CASING STRINGS CEMENTED TO SURFACE IS REQUIRED IN HIGH CAVE/KARST AREAS. THE CEMENT MUST BE IN A SOLID SHEATH. THEREFORE, ONE INCH OPERATIONS ARE NOT SUFFICIENT TO PROTECT CAVE KARST RESOURCES. A CASING DESIGN THAT HAS A ONE INCH JOB PERFORMED DOES NOT COUNT AS A SOLID SHEATH. ON A THREE STRING DESIGN; IF THE PRIMARY CEMENT JOB ON THE SURFACE CASING DOES NOT

CIRCULATE, THEN THE NEXT TWO CASING STRINGS MUST BE CEMENTED TO SURFACE.

3. The minimum required fill of cement behind the 7 inch production casing is:
- Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. **Excess calculates to 22% - Additional cement may be required.**

Formation below the 7" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and a minimum of one every other joint.

4. The minimum required fill of cement behind the 4-1/2 inch production liner is:
- Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. **Excess calculates to 9% - Additional cement may be required.**
5. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
2. Variance approved to use flex line from BOP to choke manifold. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. **Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.** If the BLM inspector questions the straightness of the hose, a BLM engineer will be contacted and will review in the field or via picture supplied by inspector to determine if changes are required (operator shall expect delays if this occurs).
3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M) psi.**

- a. **For surface casing only:** If the BOP/BOPE is to be tested against casing, the wait on cement (WOC) time for that casing is to be met (see WOC statement at start of casing section). Independent service company required.
4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 9-5/8" intermediate casing shoe shall be **3000 (3M)** psi.
5. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 7" production casing shoe shall be **5000 (5M)** psi.

5M system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

6. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
 - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
 - c. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
 - d. The results of the test shall be reported to the appropriate BLM office.
 - e. All tests are required to be recorded on a calibrated test chart. **A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.**

- f. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- g. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

D. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the **Wolfcamp** formation, and shall be used until production casing is run and cemented.

E. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

F. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

CLN 022316

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Exclosure Netting (Open-top Tanks)

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could

be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Enclosure Screening

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock enclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Enclosures

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended enclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color, **Shale Green** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The Holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The Holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C.6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.
4. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder. Such action by the Authorized Officer shall not relieve holder of any responsibility as provided herein.
5. All construction and maintenance activity will be confined to the authorized right-of-way.
6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.
7. The maximum allowable disturbance for construction in this right-of-way will be 30 feet:

- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed **20** feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
- Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed **30** feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
- The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)

8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.

9. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

- | | |
|--|--|
| <input checked="" type="checkbox"/> seed mixture 1 | <input type="checkbox"/> seed mixture 3 |
| <input type="checkbox"/> seed mixture 2 | <input type="checkbox"/> seed mixture 4 |
| <input type="checkbox"/> seed mixture 2/LPC | <input type="checkbox"/> Aplomado Falcon Mixture |

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates “Standard Environmental Colors” – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

17. The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes associated roads, pipeline corridor and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

8. Escape Ramps - The operator will construct and maintain pipeline/utility trenches [that are not otherwise fenced, screened, or netted] to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.

2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.

3. The holder agrees to indemnify the United States against any liability arising from the release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.

5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the Authorized Officer to determine appropriate actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the Authorized Officer after consulting with the holder.

11. Special Stipulations:

- For reclamation remove poles, lines, transformer, etc. and dispose of properly.
- Fill in any holes from the poles removed.

IX. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared, these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture 1 for Loamy Sites

Holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed shall be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall be tagged in accordance with State law(s) and available for inspection by the Authorized Officer.

Seed shall be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture shall be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). Holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed shall be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre shall be doubled. The seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

<u>Species</u>	<u>lb/acre</u>
Plains lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0
Plains bristlegrass (Setaria macrostachya)	2.0

*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed