NM OIL CONSERVATION
ARTESIA DISTRICT
JUN 30 2016
RECEIVED
OCD Artesia

ATS-16-540

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

R-111-POTASH

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
Other: Fee; SHL\BHL: NMNM0560353
NM-135239

6. If Indian, Allotee or Tribe Name

1a. Type of Work: [X] DRILL [ ] REENTER

1b. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other

1c. Type of Completion: [X] Hydraulic Fracturing [X] Single Zone [ ] Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.
Crescent Hale 10 Federal Com #4H

2. Name of Operator
Cimarex Energy Co. of Colorado

9. API Well No.
30015 43847

3a. Address
600 N. Marienfield St. Ste. 600 Midland Tx 79071

3b. Phone No. *(include area code)*
432-571-7800

10. Field and Pool, or Exploratory
Benson;
Bone Spring

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At Surface: 1257 FSL & 1974 FEL Sec. 11-19S-30E

At proposed prod. Zone: 530' FSL & 330 FWL; Sec 10,19S-30E *Bone Spring*

11. Sec., T. R. M. or Blk. and Survey or Area
11, 19S, 30E

14. Distance in miles and direction from nearest town or post office*
Well is 24.1 miles Northeast of Carlsbad NM

12. County or Parish: Eddy

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line if any) 1257	16. No of acres in lease Fee=40.00 acres NMNM0560353=1640.32 acres	17. Spacing Unit dedicated to this well 280.00
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1000	19. Proposed Depth Pilot Hole TD: N/A 16,946 MD 8,585 TVD	20. BLM/BIA Bond No. in file NMB001188; NMB001187
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3350 GR	22. Approximate date work will start* 4/1/16	23. Estimated duration 30 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
2. A Drilling Plan
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator Certification
6. Such other site specific information and/or plans as may be required by the BLM.

Must be in compliance with NMOCD Rule 5.9 prior to placing well on production

25. Signature	Name *(Printed/Typed)*	Date
Amithy Crawford	Amithy Crawford	2/3/16

Title: Regulatory Compliance

Approved By *(Signature)* /s/George MacDonell	Name *(Printed/Typed)*	Date JUN 23 2016
Title FIELD MANAGER	Office CARLSBAD FIELD 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.

Approval Subject to General Requirements & Special Stipulations Attached

SEE ATTACHED FOR CONDITIONS OF APPROVAL

NM OIL CONSERVATION
ARTESIA DISTRICT
JUN 30 2016

(Continued on page 2)

*(Instructions on page 2)

RECEIVED

Capitan Controlled Water Basin

ES 7/6/16

Operator Certification Statement
Crescent Hale 10 Federal Com #4H
Cimarex Energy Co.
UL: O, Sec. 11, 19S, 30E
Eddy Co., NM

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 BLM under their (Lease, Statewide, Nationwide, Unit or Permit) Bond, BLM/BIA/FS Bond No. 2575.

Executed this 3 day of February, 2016

NAME: Amithy Crawford

TITLE: Regulatory Compliance
ADDRESS: 600 N. Marienfield St. Ste. 600 Midland Tx 79071
TELEPHONE: 432-571-7800
EMAIL: acrawford@cimarex.com
Field Representative: Same as above

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

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30015- 43847	5200	~~Wildcat~~; Bone Spring

[4] Property Code	[5] Property Name	[6] Well Number
3160 482	CRESCENT HALE 10 FEDERAL COM	4H

[7] OGRID No.	[8] Operator Name	[9] Elevation
162683	Cimarex Energy Co. of Colorado	3350.6'

[10] Surface Location

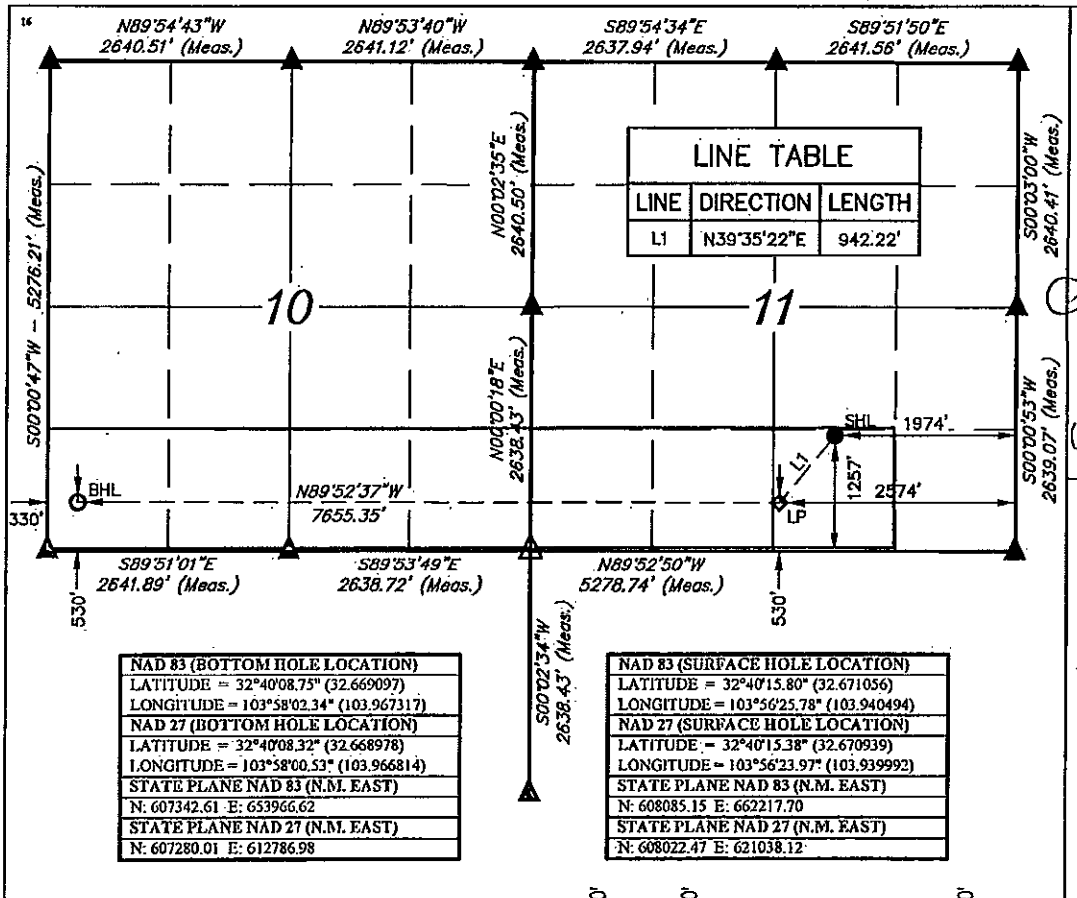
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
O	11	19 S	30 E		1257	SOUTH	1974	EAST	EDDY

[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
M	10	19 S	30 E		530	SOUTH	330	WEST	EDDY

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
280			NSP & NSL Pending

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.



NAD 83 (BOTTOM HOLE LOCATION)
LATITUDE = 32°40'08.75" (32.669097)
LONGITUDE = 103°58'02.34" (103.967317)
NAD 27 (BOTTOM HOLE LOCATION)
LATITUDE = 32°40'08.32" (32.668978)
LONGITUDE = 103°58'00.53" (103.966814)
STATE PLANE NAD 83 (N.M. EAST)
N: 607342.61 E: 653966.62
STATE PLANE NAD 27 (N.M. EAST)
N: 607280.01 E: 612786.98

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°40'15.80" (32.671056)
LONGITUDE = 103°56'25.78" (103.940494)
NAD 27 (SURFACE HOLE LOCATION)
LATITUDE = 32°40'15.38" (32.670939)
LONGITUDE = 103°56'23.97" (103.939992)
STATE PLANE NAD 83 (N.M. EAST)
N: 608085.15 E: 662217.70
STATE PLANE NAD 27 (N.M. EAST)
N: 608022.47 E: 621038.12

▲ = SECTION CORNERS LOCATED.
△ = SECTION CORNERS RE-ESTABLISHED USING DOUBLE PROPORTION METHOD.. (Not Set on Ground.)

2000' 1000' 0' 2000'
SCALE
REVISED BY: J.L.H. 02-05-16

NOTE: Distances referenced on plat are perpendicular to section lines.

[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature 2/18/16 Date

Amithy Crawford
Printed Name

acrawford@cimarex.com
E-mail Address

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

January 28, 2016
Date of Survey

Signature and Seal of Professional Surveyor:

PROFESSIONAL SURVEYOR
NEW MEXICO
12446
Nelson J. Marshall
NELSON J. MARSHALL 02-05-16

Certificate Number:

BEGINNING AT THE INTERSECTION OF DUVALL SHAFT ROAD AND GRUBBS ROAD LOCATED IN SECTION 33, T18S, R30E, N.M.P.M.), PROCEED IN A NORTHEASTERLY, THEN SOUTHERLY DIRECTION APPROXIMATELY 1.0 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 2.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE SOUTH; TURN RIGHT AND PROCEED IN A SOUTHERLY DIRECTION APPROXIMATELY 0.4 MILES TO THE CRESCENT HALE 10 FEDERAL 3H AND THE BEGINNING OF THE PROPOSED ACCESS ROAD TO THE EAST; FOLLOW ROAD FLAGS IN AN EASTERLY, THEN SOUTHEASTERLY DIRECTION APPROXIMATELY 1776' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM THE INTERSECTION OF DUVALL SHAFT ROAD AND GRUBBS ROADS (LOCATED IN SECTION 33, T18S, R30E, N.M.P.M.) TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 4.2 MILES.

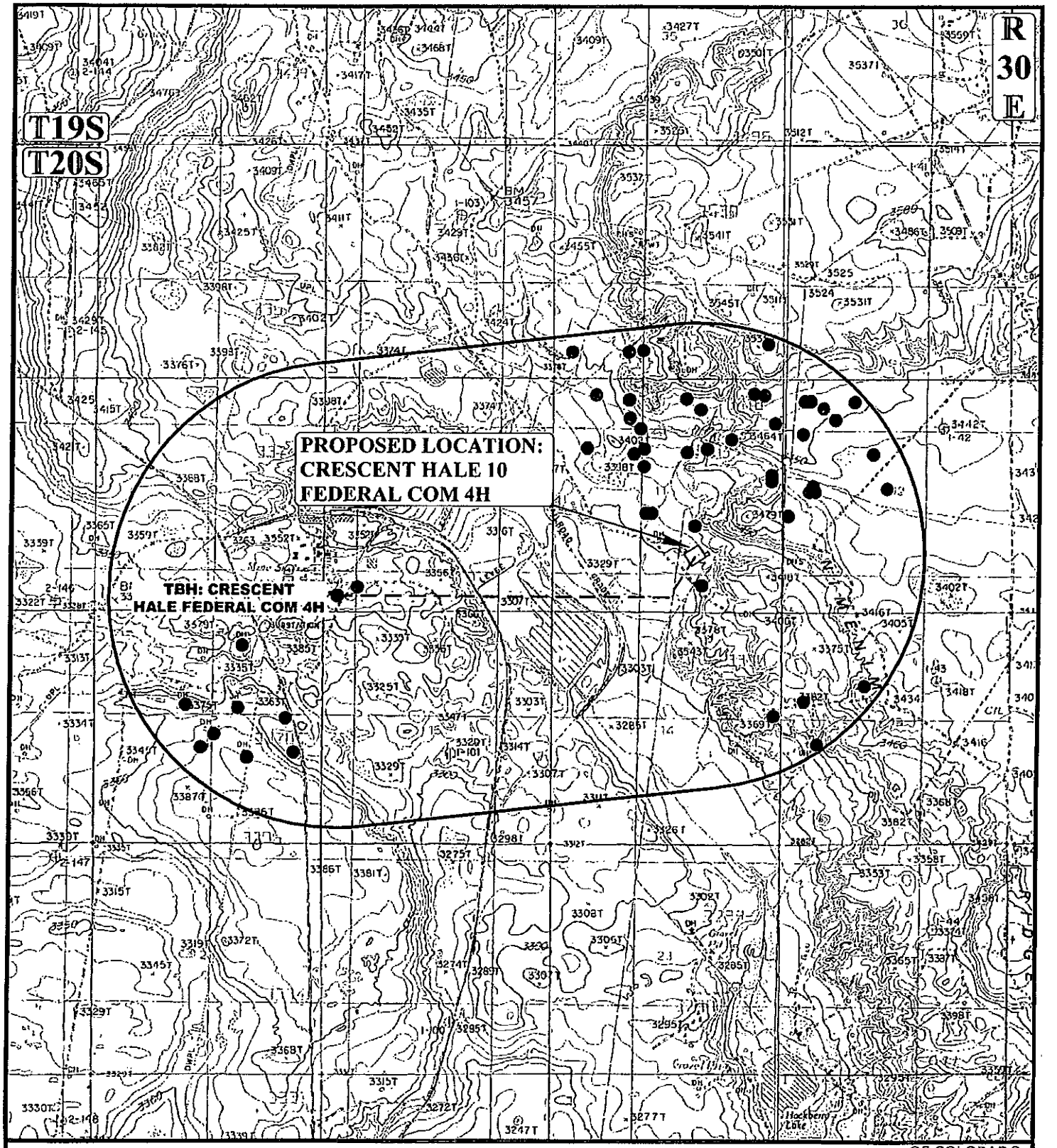
CIMAREX ENERGY CO. OF COLORADO

CRESCENT HALE 10 FEDERAL COM 4H
1257' FSL 1974' FEL
SW 1/4 SE 1/4, SECTION 11, T19S, R30E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	DATE	REVISED BY	DATE
C.J., A.H.	01-28-16		
DRAWN BY	DATE		
J.L.G.	02-01-16		
SCALE			

ROAD DESCRIPTION

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



LEGEND:

⊙ EXISTING WELLS

N

CIMAREX ENERGY CO. OF COLORADO

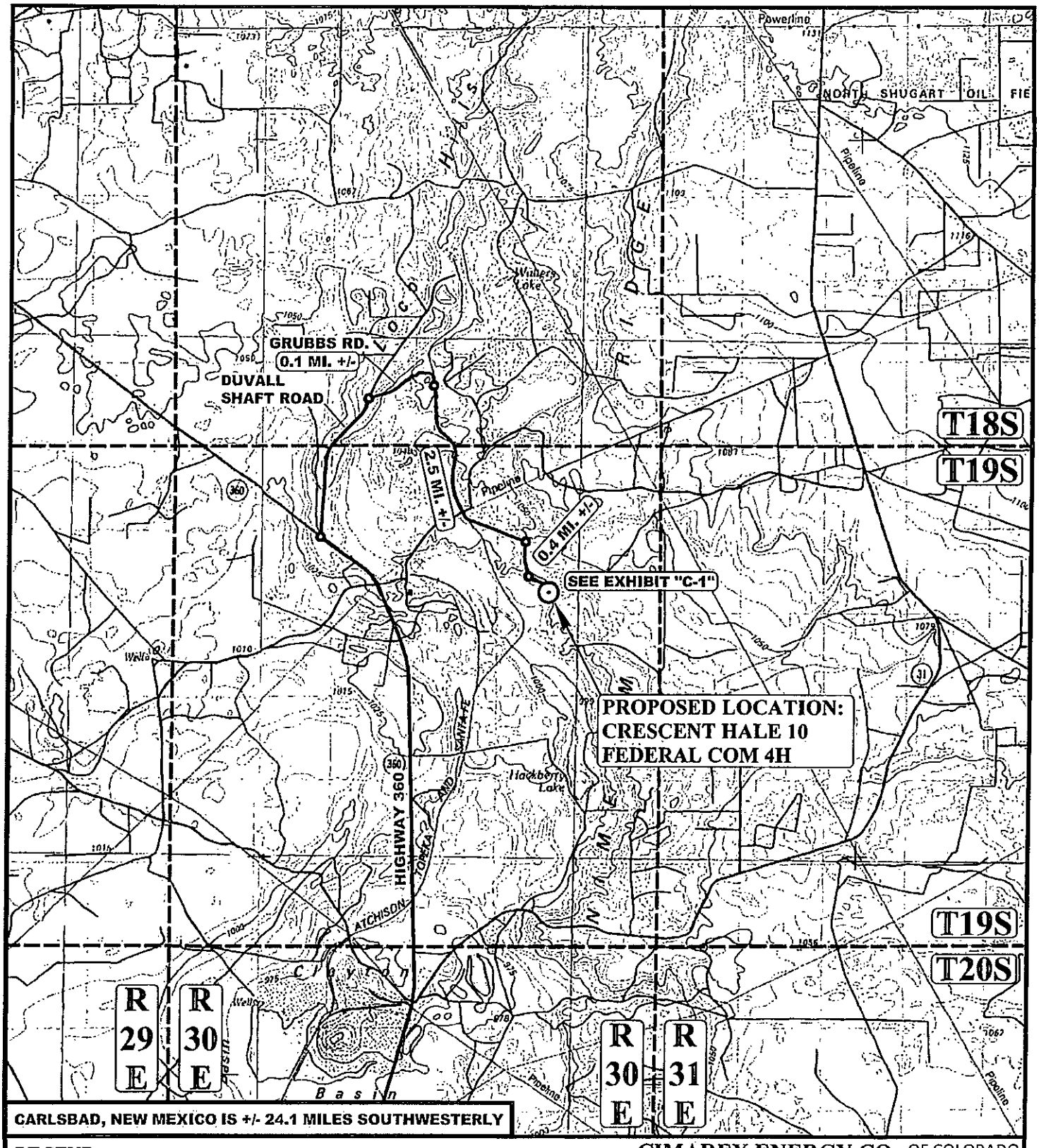
CRESCENT HALE 10 FEDERAL COM 4H
1257' FSL 1974' FEL
SW 1/4 SE 1/4, SECTION 11, T19S, R30E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	DATE	REVISED BY	DATE
C.J., A.H.	01-28-16		
DRAWN BY	DATE		
J.L.G.	02-01-16		
SCALE	1" = 3000'		

ONE MILE RADIUS PLAT | **EXHIBIT A**

UINTAH ENGINEERING & LAND SURVEYING

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



LEGEND:

⊙ PROPOSED LOCATION

CIMAREX ENERGY CO. OF COLORADO

CRESCENT HALE 10 FEDERAL COM 4H
1257' FSL 1974' FEL
SW 1/4 SE 1/4, SECTION 11, T19S, R30E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	DATE	REVISED BY	DATE
C.J., A.H.	01-28-16		
DRAWN BY	DATE		
J.L.G.	02-01-16		
SCALE	1 : 100,000		

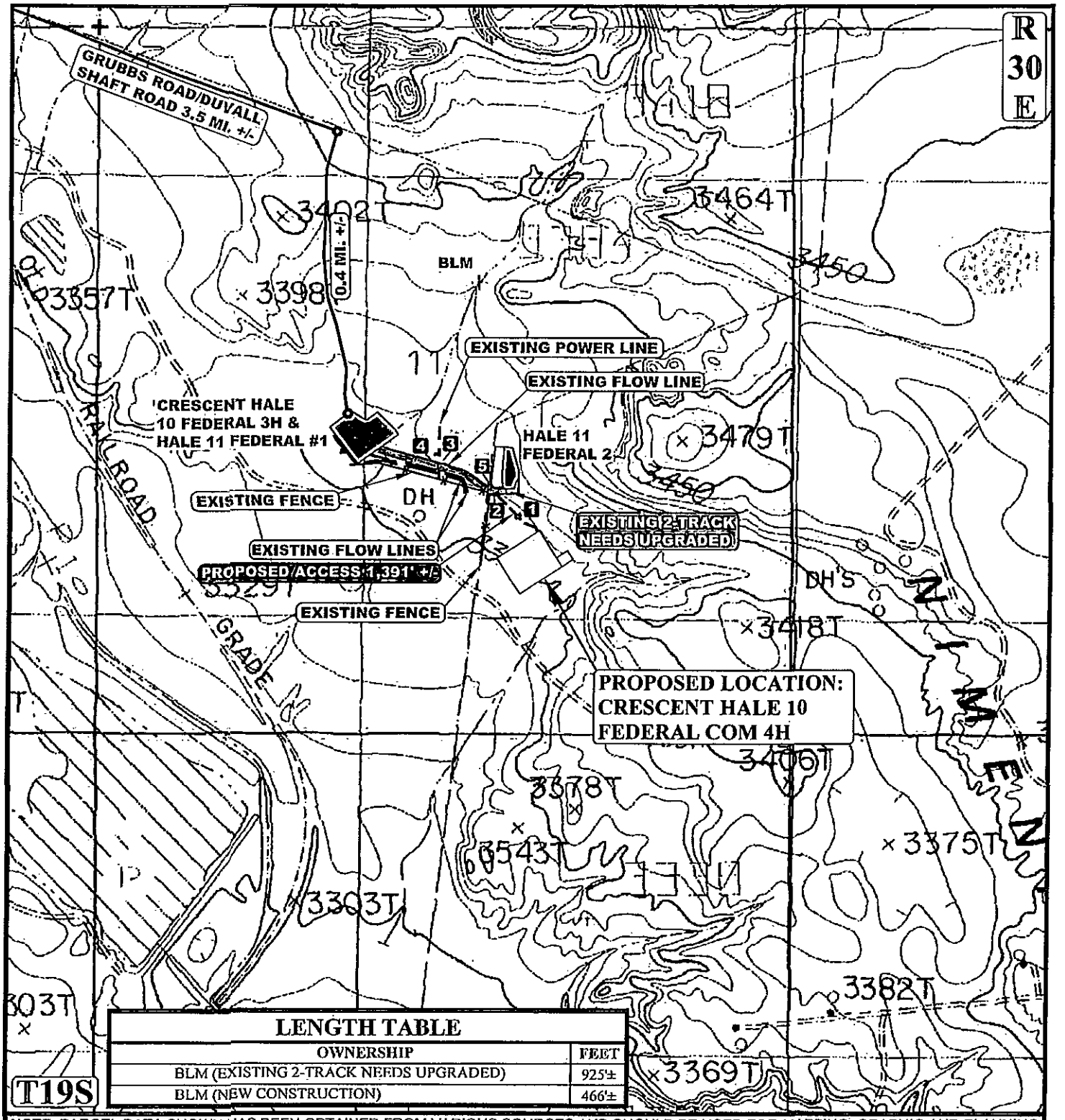
PUBLIC ACCESS ROAD MAP | EXHIBIT B

N

UINTAH ENGINEERING & LAND SURVEYING

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

02-01-16



LENGTH TABLE	
OWNERSHIP	FEET
BLM (EXISTING 2-TRACK NEEDS UPGRADED)	925'±
BLM (NEW CONSTRUCTION)	466'±

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
- EXISTING POWER LINE
- EXISTING PIPELINE / FLOW LINE
- EXISTING FENCE
- 1 INSTALL CONCRETE LOW WATER CROSSING
- 2 INSTALL CATTLE GUARD
- 3 INSTALL 48" CULVERT
- 4 EXISTING 48" CULVERT
- 5 EXISTING 8" CULVERT

N

UINTAH ENGINEERING & LAND SURVEYING

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

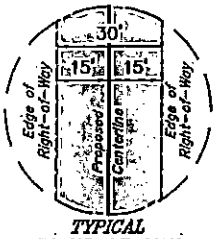
CIMAREX ENERGY CO. OF COLORADO

CRESCENT HALE 10 FEDERAL COM 4H
1257' FSL 1974' FEL
SW 1/4 SE 1/4, SECTION 11, T19S, R30E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	DATE	REVISED BY	DATE
C.J., A.H.	01-28-16		
DRAWN BY	DATE		
J.L.G.	02-01-16		
SCALE	1" = 1000'		

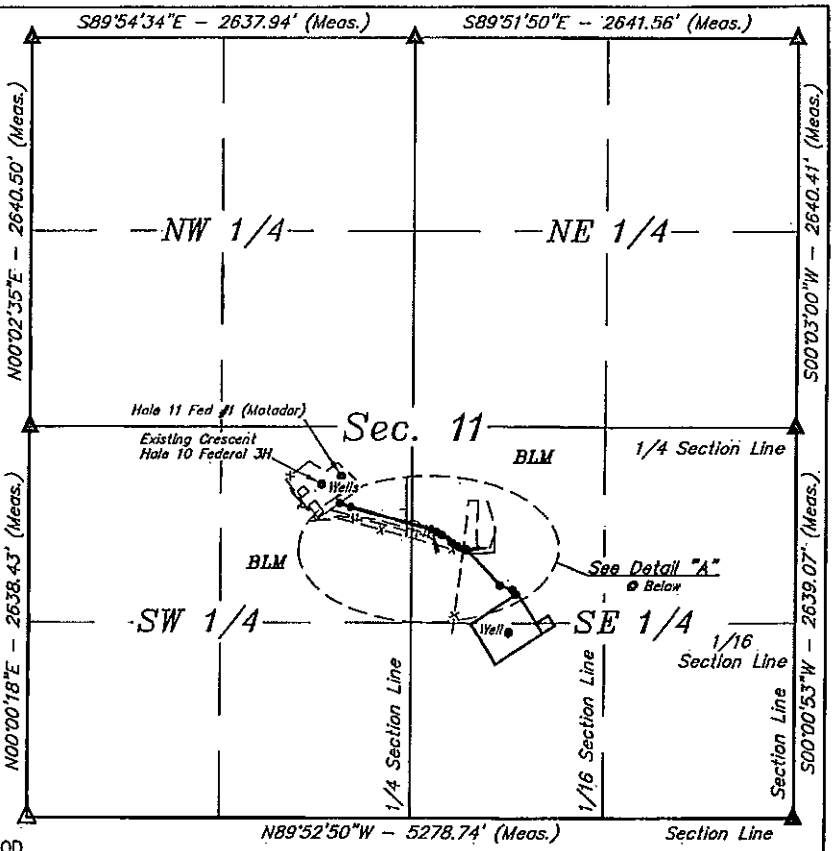
TOPOGRAPHIC MAP | EXHIBIT C-1

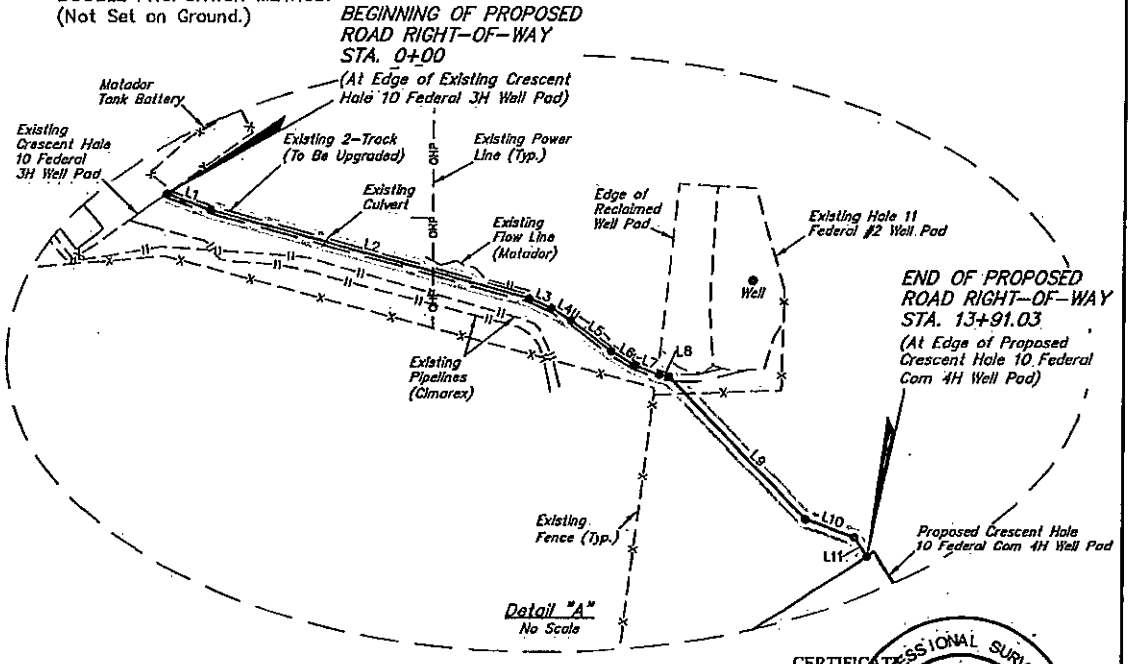
LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S70°34'18"E	79.99'
L2	S74°36'25"E	566.82'
L3	S86°35'53"E	42.18'
L4	S59°00'22"E	39.32'
L5	S53°17'36"E	87.94'
L6	S59°17'19"E	47.32'
L7	S70°05'59"E	45.09'
L8	S80°41'44"E	18.38'
L9	S43°53'23"E	337.62'
L10	S70°27'00"E	88.46'
L11	S32°49'09"E	39.99'



TYPICAL RIGHT-OF-WAY DETAIL
NO SCALE

▲ = SECTION CORNERS LOCATED.
△ = SECTION CORNERS RE-ESTABLISHED USING DOUBLE PROPORTION METHOD. (Not Set on Ground.)





ACREAGE / LENGTH TABLE				
	OWNERSHIP	FEET	RODS	ACRES
SW 1/4	BLM	513.23	31.10	0.353
SE 1/4	BLM	877.80	53.20	0.605
TOTAL	BLM	1391.03	84.30	0.958

CERTIFICATE

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.

NEW MEXICO 12446 PROFESSIONAL SURVEYOR

REGISTERED LAND SURVEYOR
REGISTRATION NO. 12446
STATE OF NEW MEXICO

02-02-16

Sheet 1 of 2

NOTES:
- The maximum grade of existing ground for the proposed access road is ±2.6%
- Basis of bearing is a G.P.S. observation (Vertical Control Datum: NAVD88)

1000' 500' 0' 1000'

UINTAH ENGINEERING & LAND SURVEYING

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

N

CIMAREX ENERGY CO. OF COLORADO

CRESCENT HALE 10 FEDERAL COM 4H
SECTION 11, T19S, R30E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	DATE	REVISED BY	DATE
C.J., A.H.	01-28-16		
DRAWN BY	DATE		
T.E.	02-01-16		
SCALE	1" = 1000'		

ACCESS ROAD R.O.W. | EXHIBIT C-2

ROAD 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 NE 1/4 SW 1/4 OF SECTION 11, T19S, R30E, N.M.P.M., WHICH BEARS S76°25'35"E 2207.97' FROM THE WEST 1/4 CORNER OF SAID SECTION 11, THENCE S70°34'18"E 79.99'; THENCE S74°36'25"E 566.82'; THENCE S66°35'53"E 42.16'; THENCE S59°00'22"E 39.32'; THENCE S53°17'36"E 87.94'; THENCE S59°17'19"E 47.32'; THENCE S70°05'59"E 45.06'; THENCE S80°41'44"E 16.36'; THENCE S43°53'23"E. 337.62'; THENCE S70°27'00"E 88.46'; THENCE S32°49'09"E 39.99' TO A POINT IN THE NW 1/4 SE 1/4 OF SAID SECTION 11, WHICH BEARS S59°48'02"W 2232.80' FROM THE EAST 1/4 CORNER OF SAID SECTION 11. 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 0.958 ACRES MORE OR LESS.

BEGINNING OF ROAD STA. 0+00 BEARS S76°25'35"E 2207.97' FROM THE WEST 1/4 CORNER OF SECTION 11, T19S, R30E, N.M.P.M.

END OF ROAD STA. 13+91.03 BEARS S59°48'02"W 2232.80' FROM THE EAST 1/4 CORNER OF SECTION 11, T19S, R30E, N.M.P.M.

NUMBER	STATION	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
BEGIN	0+00.00	N 32°40'24.41"	W 103°56'39.35"
1	0+79.99	N 32°40'24.14"	W 103°56'38.46"
2	6+46.81	N 32°40'22.65"	W 103°56'32.07"
3	6+88.97	N 32°40'22.49"	W 103°56'31.61"
4	7+28.29	N 32°40'22.29"	W 103°56'31.22"
5	8+16.22	N 32°40'21.77"	W 103°56'30.39"
6	8+63.54	N 32°40'21.53"	W 103°56'29.92"
7	9+08.60	N 32°40'21.38"	W 103°56'29.42"
8	9+24.97	N 32°40'21.35"	W 103°56'29.23"
9	12+62.59	N 32°40'18.95"	W 103°56'26.49"
10	13+51.04	N 32°40'18.65"	W 103°56'25.52"
END	13+91.03	N 32°40'18.32"	W 103°56'25.27"

SECTION CORNER	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
SW COR. SEC. 11-T19S-R30E	N 32°40'03.42"	W 103°57'04.44"
W 1/4 COR. SEC. 11-T19S-R30E	N 32°40'29.52"	W 103°57'04.45"
NW COR. SEC. 11-T19S-R30E	N 32°40'55.65"	W 103°57'04.44"
N 1/4 COR. SEC. 11-T19S-R30E	N 32°40'55.61"	W 103°56'33.58"
NE COR. SEC. 11-T19S-R30E	N 32°40'55.56"	W 103°56'02.68"
E 1/4 COR. SEC. 11-T19S-R30E	N 32°40'29.44"	W 103°56'02.70"
SE COR. SEC. 11-T19S-R30E	N 32°40'03.33"	W 103°56'02.70"

CERTIFICATE

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.

NEW MEXICO 12446 PROFESSIONAL SURVEYOR

REGISTERED LAND SURVEYOR
REGISTRATION NO. 12446
STATE OF NEW MEXICO

02-02-16

Sheet 2 of 2

CIMAREX ENERGY CO. OF COLORADO

CRESCENT HALE 10 FEDERAL COM 4H
SECTION 11, T19S, R30E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	DATE	REVISED BY	DATE
C.J., A.H.	01-28-16		
DRAWN BY	DATE		
T.E.	02-01-16		
SCALE	NONE		

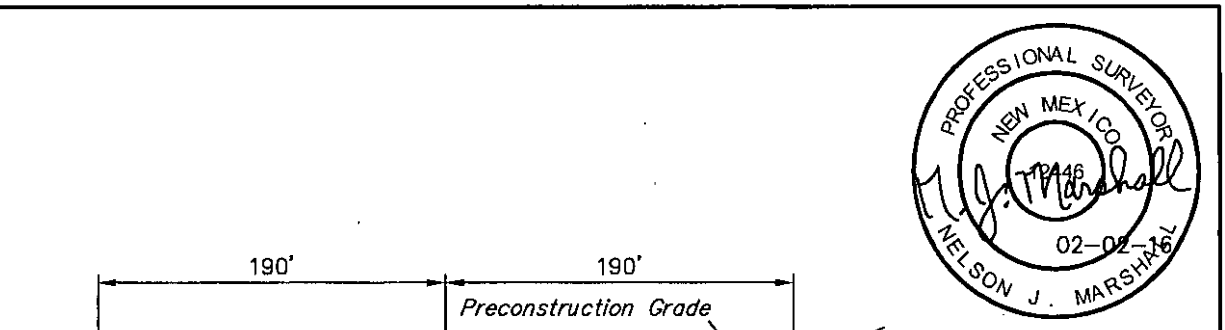
ACCESS ROAD R.O.W. | EXHIBIT C-2

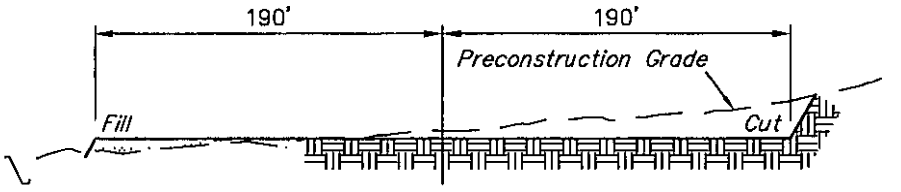
N

UINTAH ENGINEERING & LAND SURVEYING

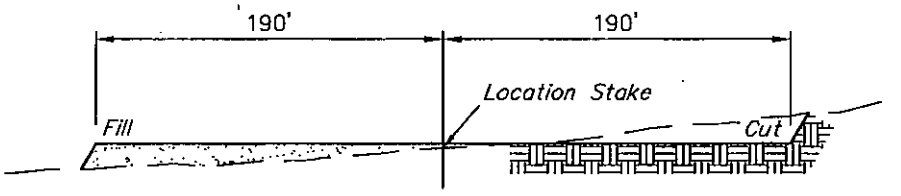
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

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

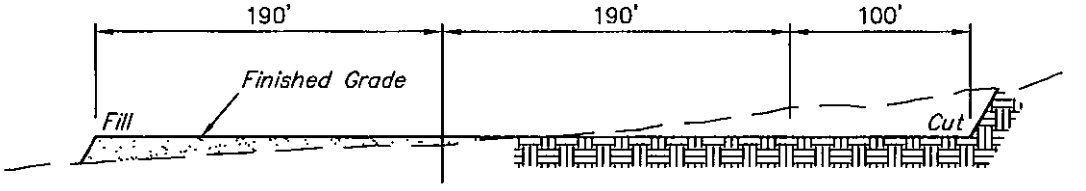




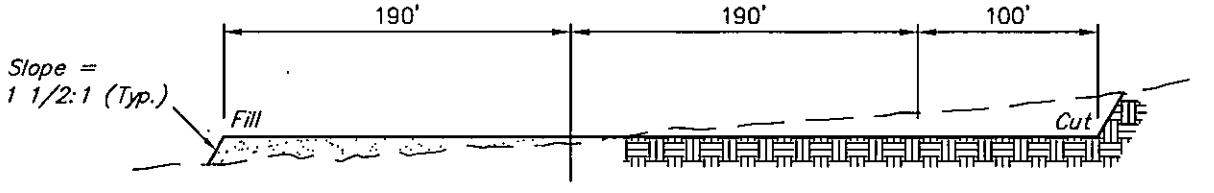
STA. 3+20



STA. 1+30



STA. 0+80



STA. 0+00

APPROXIMATE EARTHWORK QUANTITIES	
(4") TOPSOIL STRIPPING	1,770 Cu. Yds.
REMAINING LOCATION	8,400 Cu. Yds.
TOTAL CUT	**10,170 Cu. Yds.**
FILL	**8,400 Cu. Yds.**
EXCESS MATERIAL	1,770 Cu. Yds.
TOPSOIL	1,770 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	**0 Cu. Yds.**

APPROXIMATE SURFACE DISTURBANCE AREAS		
	DISTANCE	**ACRES**
WELL SITE DISTURBANCE	NA	±3.440
30' WIDE ACCESS ROAD R-O-W DISTURBANCE	±1,391.03'	±0.958
30' WIDE FLOW LINE R-O-W DISTURBANCE	±1,776.32'	±1.223
30' WIDE POWER LINE R-O-W DISTURBANCE	±926.36'	±0.638
TOTAL SURFACE USE AREA		±6.259

NOTES:

- Fill quantity includes 5% for compaction.
- Cut/Fill slopes 1 1/2:1 (Typ.)

CIMAREX ENERGY CO.

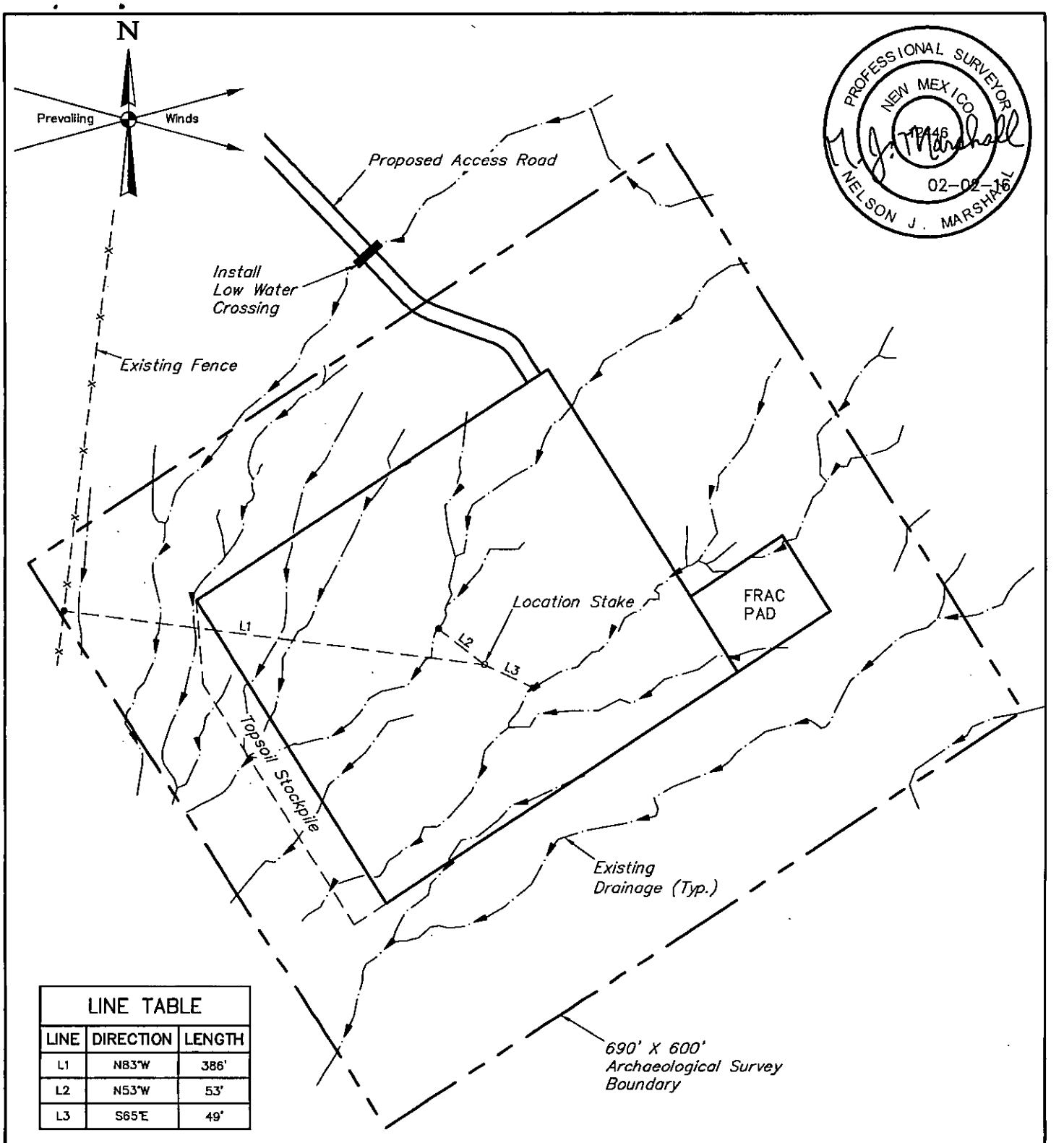
CRESCENT HALE 10 FEDERAL COM 4H
1257' FSL 1974' FEL
SW 1/4 SE 1/4, SECTION 11, T19S, R30E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	DATE	REVISED BY	DATE
C.J., A.H.	01-28-16		
DRAWN BY	**DATE**		
T.E.	02-01-16		
SCALE	AS SHOWN		

TYPICAL CROSS SECTIONS | **EXHIBIT D**

UINTAH ENGINEERING & LAND SURVEYING

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



PROFESSIONAL SURVEYOR
NEW MEXICO
19146
02-02-16
NELSON J. MARSHALL

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N83°W	386'
L2	N53°W	53'
L3	S65°E	49'

NOTES:

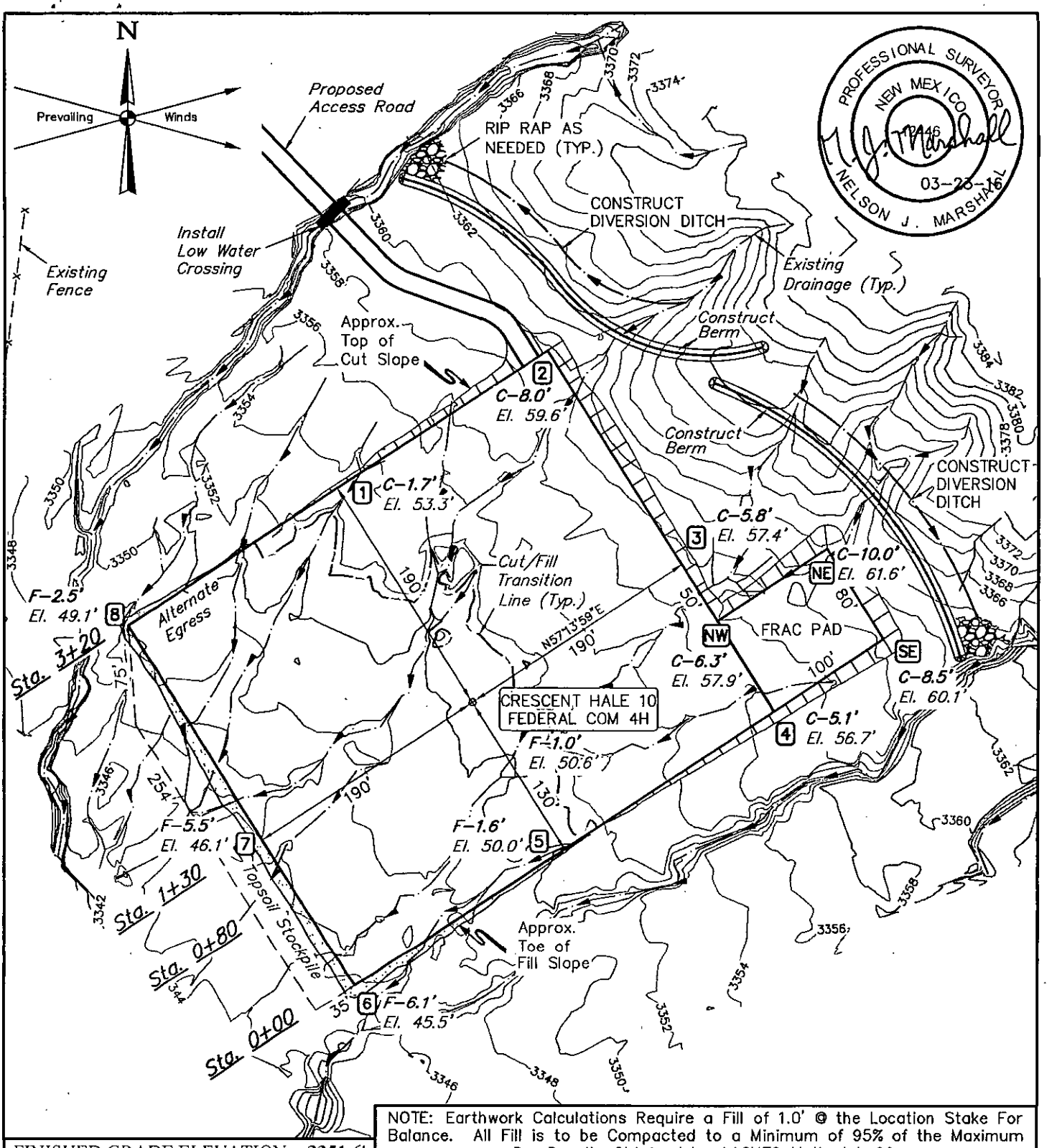
CIMAREX ENERGY CO.

CRESCENT HALE 10 FEDERAL COM 4H
1257' FSL 1974' FEL
SW 1/4 SE 1/4, SECTION 11, T19S, R30E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	DATE	REVISED BY	DATE
C.J., A.H.	01-28-16		
DRAWN BY	DATE		
T.E.	02-01-16		
SCALE	1" = 120'		
ARCHAEOLOGICAL SURVEY BOUNDARY		EXHIBIT D	

UINTAH ENGINEERING & LAND SURVEYING

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



PROFESSIONAL SURVEYOR NEW MEXICO 17946 NELSON J. MARSHALL 03-23-16

FINISHED GRADE ELEVATION = 3351.6'

NOTE: Earthwork Calculations Require a Fill of 1.0' @ the Location Stake For Balance. All Fill is to be Compacted to a Minimum of 95% of the Maximum Dry Density Obtained by AASHTO Method t-99.

NOTES:

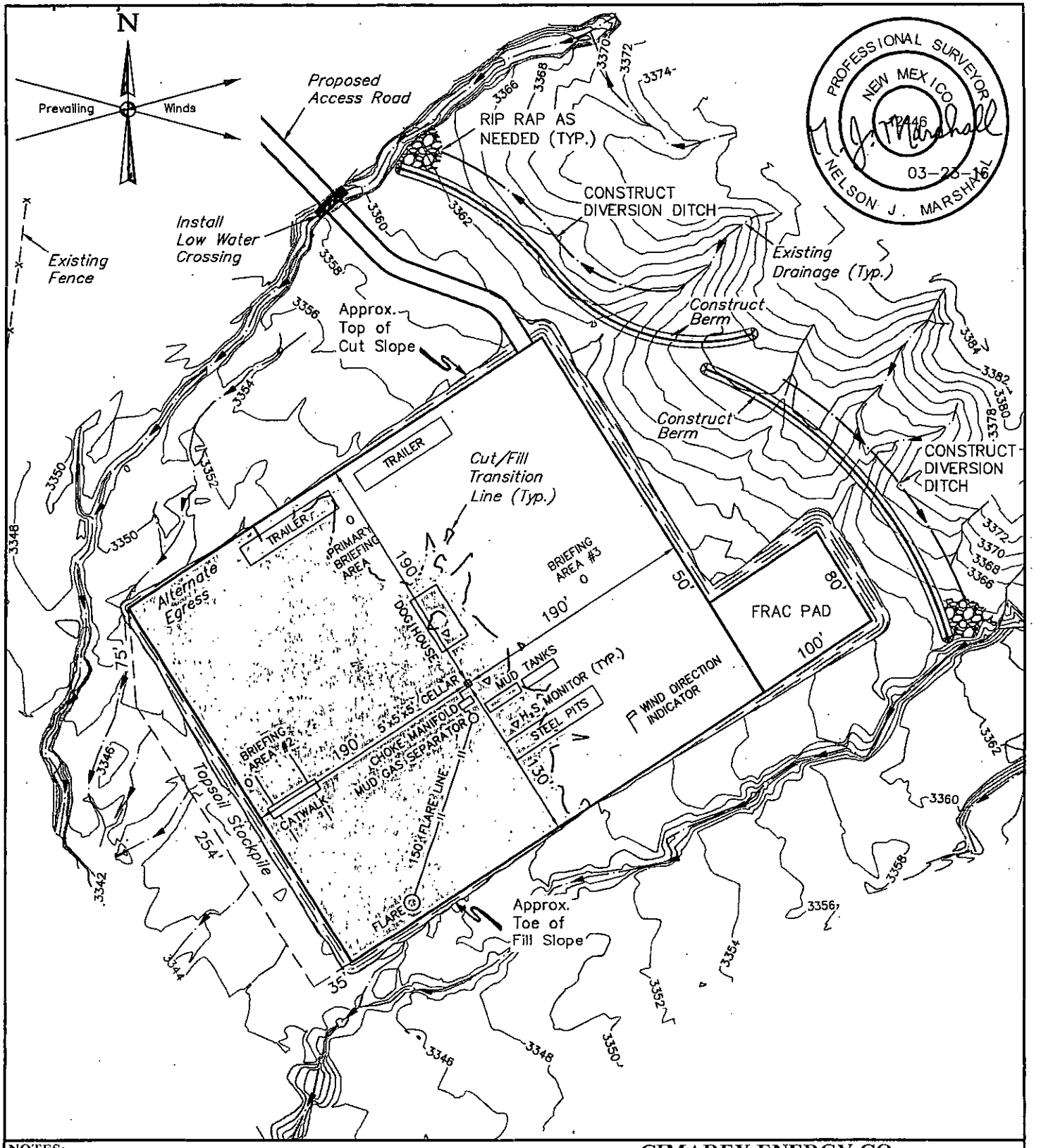
- Flare pit is to be located a min. of 100' from the wellhead.
- Contours shown at 2' intervals.
- Cut/Fill slopes 1 1/2:1 (Typ.)

CIMAREX ENERGY CO.

CRESCENT HALE 10 FEDERAL COM 4H
1257' FSL 1974' FEL
SW 1/4 SE 1/4, SECTION 11, T19S, R30E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	DATE	REVISED BY	DATE
C.J., A.H.	01-28-16	T.E.	03-23-16
DRAWN BY	DATE		
T.E.	02-01-16		
SCALE	1" = 100'		
LOCATION LAYOUT		EXHIBIT D	

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



PROFESSIONAL SURVEYOR
NEW MEXICO
17448
NELSON J. MARSHALL
03-23-16

NOTES:

- Contours shown at 2' intervals.

CIMAREX ENERGY CO.

CRESCENT HALE 10 FEDERAL COM 4H
1257' FSL 1974' FEL
SW 1/4 SE 1/4, SECTION 11, T19S, R30E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

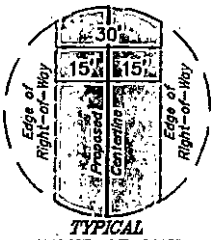
SURVEYED BY	DATE	REVISED BY	DATE
C.J., A.H.	01-28-16	T.E.	03-23-16
DRAWN BY	DATE		
T.E.	02-01-16		
SCALE	1" = 100'		

TYPICAL RIG LAYOUT | EXHIBIT D

UINTAH ENGINEERING & LAND SURVEYING

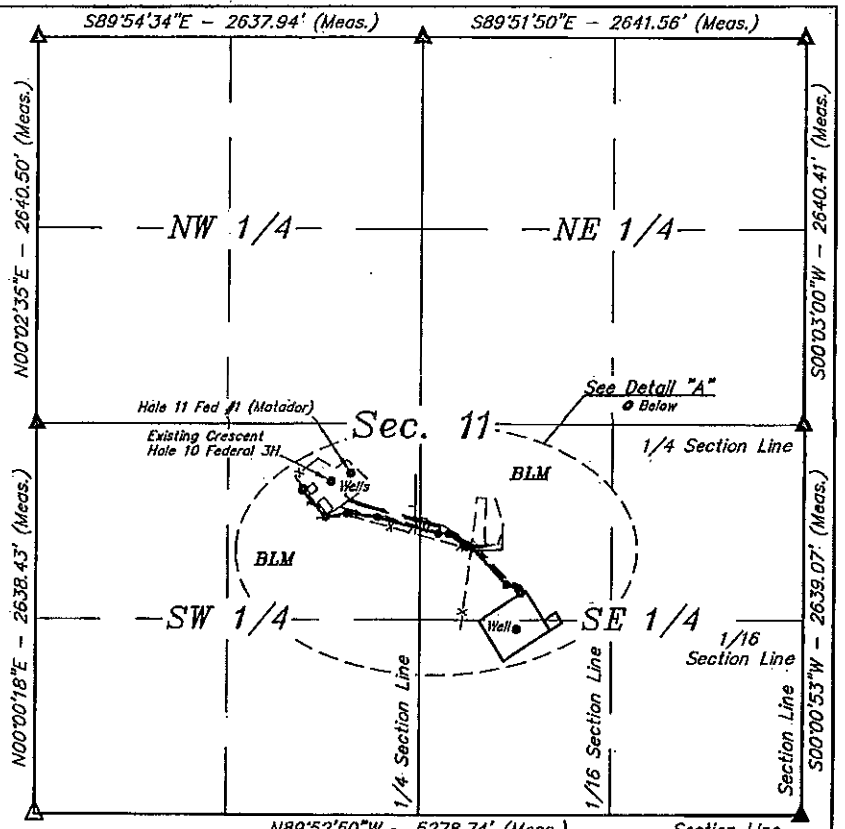
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

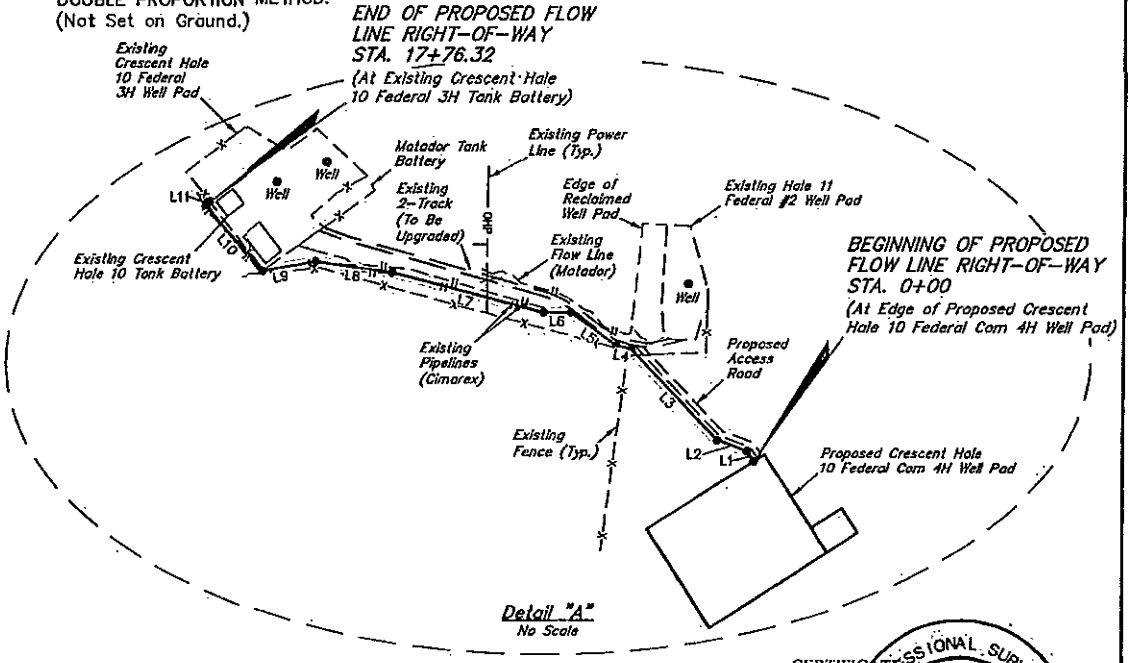
LINE TABLE		
LINE	DIRECTION	LENGTH
L1	N32°50'01"W	33.10'
L2	N70°25'46"W	86.41'
L3	N43°53'36"W	342.62'
L4	N77°05'54"W	41.20'
L5	N54°19'01"W	152.72'
L6	N89°37'16"W	73.96'
L7	N75°28'39"W	428.96'
L8	N82°15'29"W	213.83'
L9	S80°10'44"W	146.85'
L10	N41°18'54"W	241.10'
L11	N48°14'47"E	15.56'



TYPICAL RIGHT-OF-WAY DETAIL
NO SCALE

▲ = SECTION CORNERS LOCATED.
△ = SECTION CORNERS RE-ESTABLISHED USING DOUBLE PROPORTION METHOD. (Not Set on Ground.)





ACREAGE / LENGTH TABLE				
	OWNERSHIP	FEET	RODS	ACRES
SW 1/4	BLM	924.28	56.02	0.637
SE 1/4	BLM	852.03	51.64	0.587
TOTAL	BLM	1776.32	107.66	1.223

CERTIFICATE

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.

NEW MEXICO 12446 PROFESSIONAL SURVEYOR MARSHALL

REGISTERED LAND SURVEYOR
REGISTRATION NO. 12446
STATE OF NEW MEXICO

02-02-16

Sheet 1 of 2

NOTES:
- Basis of bearing is a G.P.S. observation (Vertical Control Datum: NAVD88)

1000' 500' 0' 1000'

N

CIMAREX ENERGY CO. OF COLORADO

CRESCENT HALE 10 FEDERAL COM 4H
SECTION 11, T19S, R30E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	DATE	REVISED BY	DATE
C.J., A.H.	01-28-16		
DRAWN BY	DATE		
T.E.	02-01-16		
SCALE	1" = 1000'		

FLOWLINE R-O-W | EXHIBIT G-1

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

UINTAH ENGINEERING & LAND SURVEYING

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 NW 1/4 SE 1/4 OF SECTION 11, T19S, R30E, N.M.P.M., WHICH BEARS S59°46'40"W 2252.75' FROM THE EAST 1/4 CORNER OF SAID SECTION 11, THENCE N32°50'01"W 33.10'; THENCE N70°25'46"W 86.41'; THENCE N43°53'36"W 342.62'; THENCE N77°05'54"W 41.20'; THENCE N54°19'01"W 152.72'; THENCE N89°37'16"W 73.96'; THENCE N75°28'39"W 428.96'; THENCE N82°15'29"W 213.83'; THENCE S80°10'44"W 146.85'; THENCE N41°18'54"W 241.10'; THENCE N48°14'47"E 15.56' TO A POINT IN THE NE 1/4 SW 1/4 OF SAID SECTION 11, WHICH BEARS S76°33'54"E 1889.85' FROM THE WEST 1/4 CORNER OF SAID SECTION 11. 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 1.223 ACRES MORE OR LESS.

BEGINNING OF FLOW LINE STA. 0+00 BEARS S59°46'40"W 2252.75'
FROM THE EAST 1/4 CORNER OF SECTION 11, T19S, R30E, N.M.P.M.

END OF FLOW LINE STA. 17+76.32 BEARS S76°33'54"E 1889.85'
FROM THE WEST 1/4 CORNER OF SECTION 11, T19S, R30E, N.M.P.M.

NUMBER	STATION	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
BEGIN	0+00.00	N 32°40'18.21"	W 103°56'25.46"
1	0+33.10	N 32°40'18.49"	W 103°56'25.67"
2	1+19.51	N 32°40'18.78"	W 103°56'26.62"
3	4+62.13	N 32°40'21.22"	W 103°56'29.40"
4	5+03.33	N 32°40'21.31"	W 103°56'29.87"
5	6+56.05	N 32°40'22.19"	W 103°56'31.33"
6	7+30.01	N 32°40'22.19"	W 103°56'32.19"
7	11+58.98	N 32°40'23.26"	W 103°56'37.05"
8	13+72.81	N 32°40'23.54"	W 103°56'39.53"
9	15+19.66	N 32°40'23.29"	W 103°56'41.22"
10	17+60.76	N 32°40'25.08"	W 103°56'43.08"
END	17+76.32	N 32°40'25.18"	W 103°56'42.95"

SECTION CORNER	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
SW COR. SEC. 11-T19S-R30E	N 32°40'03.42"	W 103°57'04.44"
W 1/4 COR. SEC. 11-T19S-R30E	N 32°40'29.52"	W 103°57'04.45"
NW COR. SEC. 11-T19S-R30E	N 32°40'55.65"	W 103°57'04.44"
N 1/4 COR. SEC. 11-T19S-R30E	N 32°40'55.61"	W 103°56'33.58"
NE COR. SEC. 11-T19S-R30E	N 32°40'55.56"	W 103°56'02.68"
E 1/4 COR. SEC. 11-T19S-R30E	N 32°40'29.44"	W 103°56'02.70"
SE COR. SEC. 11-T19S-R30E	N 32°40'03.33"	W 103°56'02.70"

CERTIFICATE

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.

NEW MEXICO 12446 PROFESSIONAL SURVEYOR — NELSON J. MARSHALL

REGISTERED LAND SURVEYOR
REGISTRATION NO. 12446
STATE OF NEW MEXICO

02-02-16

Sheet 2 of 2

NOTES:
- Basis of bearing is a G.P.S. observation (Vertical Control Datum: NAVD88)

CIMAREX ENERGY CO. OF COLORADO

CRESCENT HALE 10 FEDERAL COM 4H
SECTION 11, T19S, R30E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

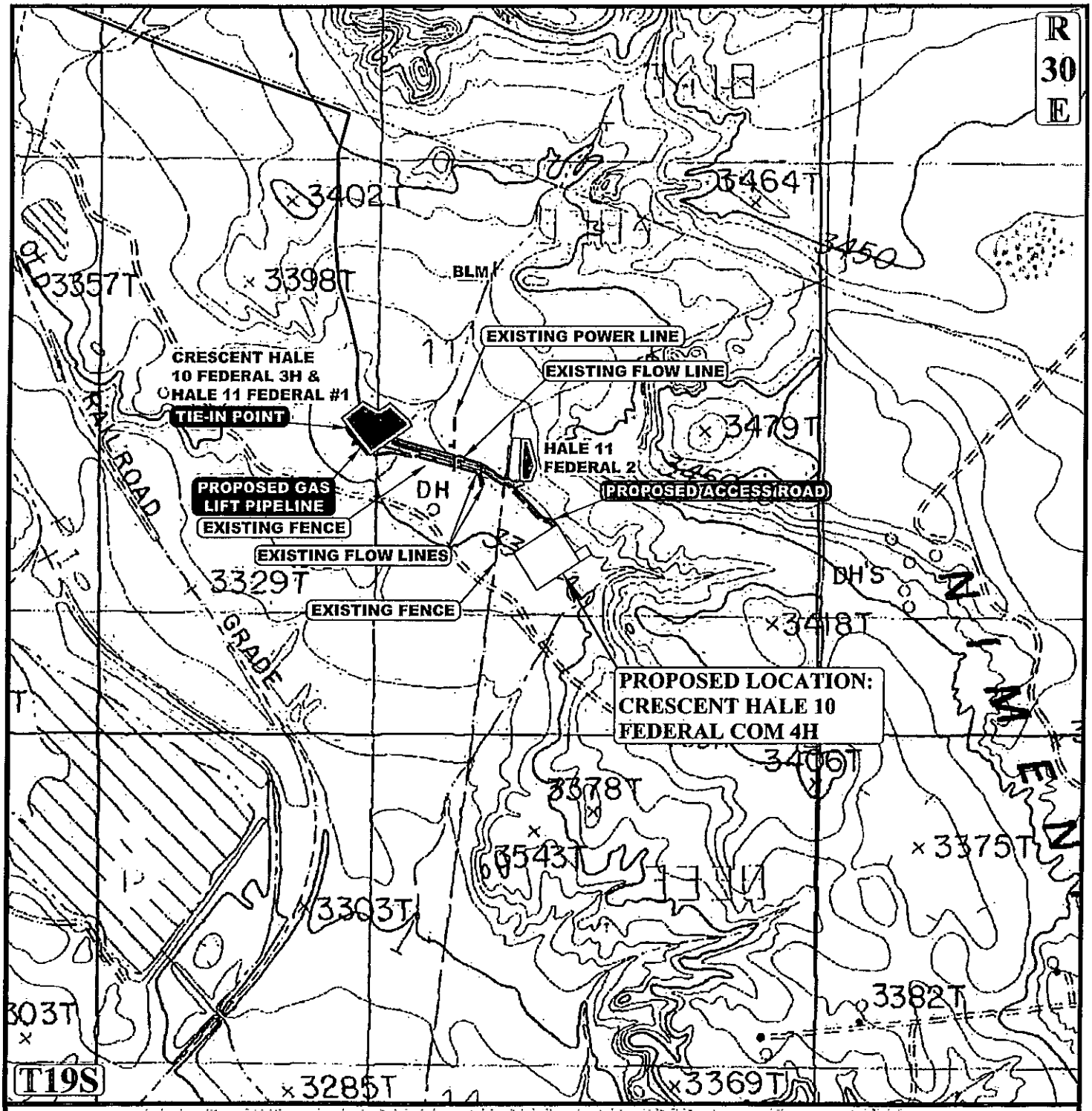
N

SURVEYED BY	DATE	REVISED BY	DATE
C.J., A.H.	01-28-16		
DRAWN BY	DATE		
T.E.	02-01-16		
SCALE	NONE		

FLOW LINE R.O.W. EXHIBIT G.1

UINTAH ENGINEERING & LAND SURVEYING

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



APPROXIMATE TOTAL FLOW LINE DISTANCE = 1,776' +/-

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 GAS LIFT PIPELINE
- EXISTING POWER LINE
- EXISTING PIPELINE / FLOW LINE

CIMAREX ENERGY CO. OF COLORADO

CRESCENT HALE 10 FEDERAL COM 4H
1257' FSL 1974' FEL
SW 1/4 SE 1/4, SECTION 11, T19S, R30E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

N

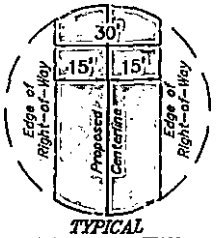
SURVEYED BY	DATE	REVISED BY	DATE
C.J., A.H.	01-28-16		
DRAWN BY	DATE		
J.L.G.	02-01-16		
SCALE	1" = 1000'		

FLOW LINE MAP | EXHIBIT G

UINTAH ENGINEERING & LAND SURVEYING

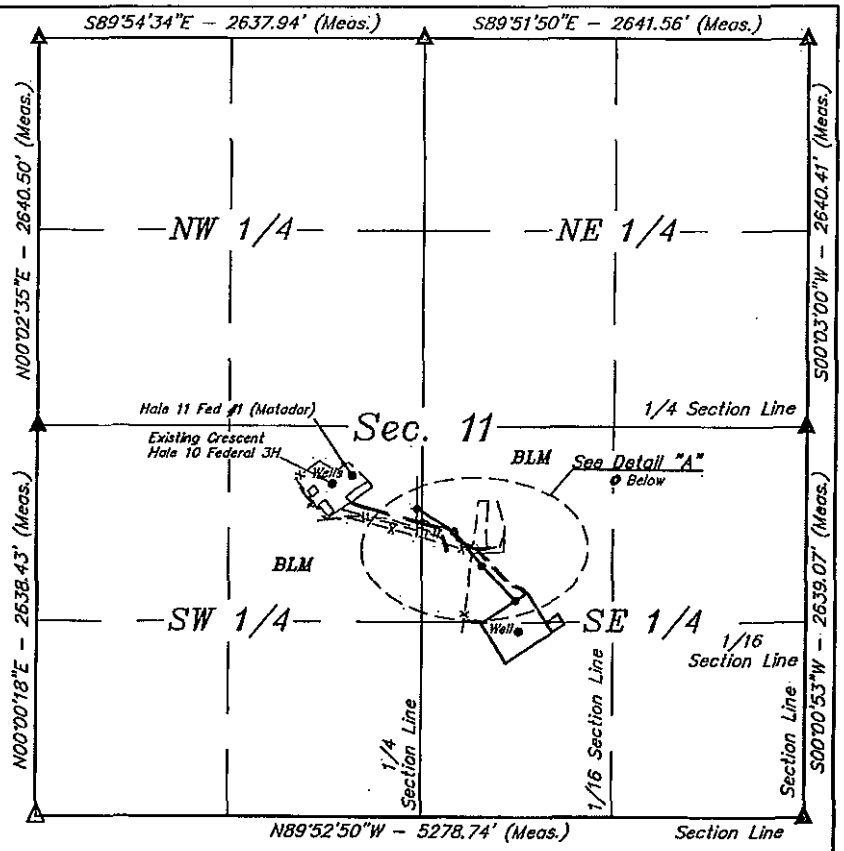
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S59°05'47"E	299.99'
L2	S39°59'23"E	300.01'
L3	S43°52'41"E	326.35'

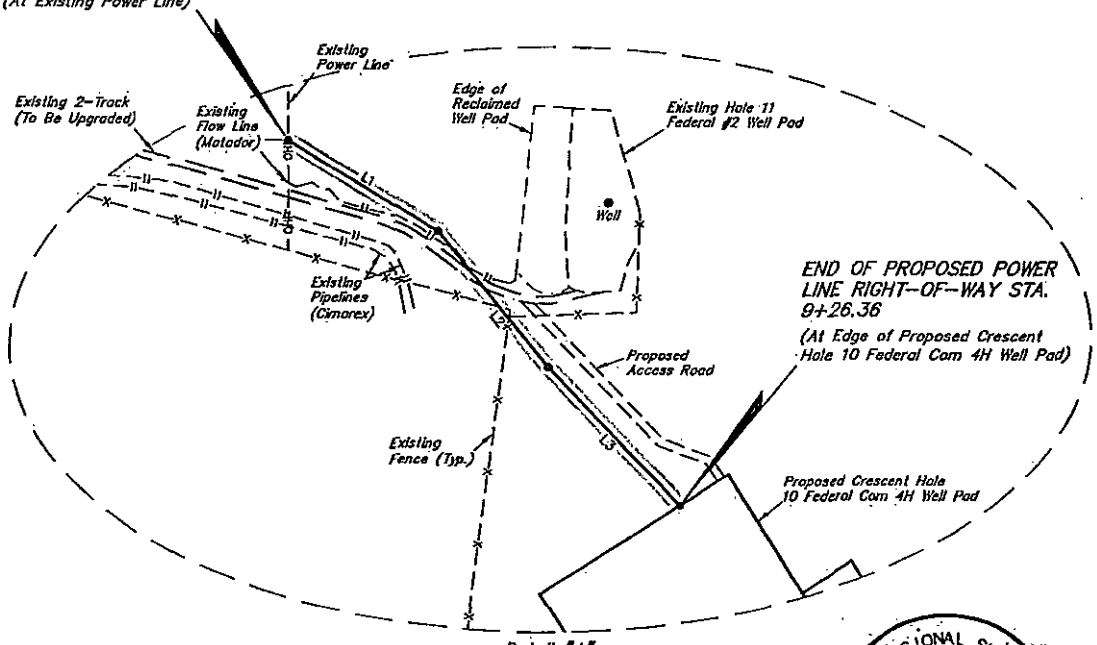


TYPICAL RIGHT-OF-WAY DETAIL
NO SCALE

▲ = SECTION CORNERS LOCATED.
△ = SECTION CORNERS RE-ESTABLISHED USING DOUBLE PROPORTION METHOD. (Not Set on Ground.)



BEGINNING OF PROPOSED POWER LINE RIGHT-OF-WAY STA. 0+00
(At Existing Power Line)



Detail "A"
No Scale

ACREAGE / LENGTH TABLE				
	OWNERSHIP	FEET	RODS	ACRES
SW 1/4	BLM	42.66	2.59	0.029
SE 1/4	BLM	883.70	53.56	0.609
TOTAL	BLM	926.36	56.14	0.638

CERTIFICATE

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.

PROFESSIONAL SURVEYOR
NEW MEXICO
12446
MARSHALL

Nelson J. Marshall

REGISTERED LAND SURVEYOR
REGISTRATION NO. 12446
STATE OF NEW MEXICO

02-02-16

Sheet 1 of 2

NOTES:
- Basis of bearing is a G.P.S. observation (Vertical Control Datum: NAVD88)

1000' 500' 0' 1000'

N

CIMAREX ENERGY CO. OF COLORADO

CRESCENT HALE 10 FEDERAL COM 4H
SECTION 11, T19S, R30E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

SURVEYED BY	DATE	REVISED BY	DATE
C.J., A.H.	01-28-16		
DRAWN BY	DATE		
T.E.	02-01-16		
SCALE	1" = 1000'		

POWER LINE R.O.W. | EXHIBIT H

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

UINTAH ENGINEERING & LAND SURVEYING

POWER 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 NE 1/4 SW 1/4 OF SECTION 11, T19S, R30E, N.M.P.M., WHICH BEARS S77°52'09"E 2662.29' FROM THE WEST 1/4 CORNER OF SAID SECTION 11, THENCE S59°05'47"E 299.99'; THENCE S39°59'23"E 300.01'; THENCE S43°52'41"E 326.35' TO A POINT IN THE NW 1/4 SE 1/4 OF SAID SECTION 11, WHICH BEARS S59°42'29"W 2316.16' FROM THE EAST 1/4 CORNER OF SAID SECTION 11. 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 0.638 ACRES MORE OR LESS.

BEGINNING OF FLOW LINE STA. 0+00 BEARS S77°52'09"E 2662.29'
FROM THE WEST 1/4 CORNER OF SECTION 11, T19S, R30E, N.M.P.M.

END OF FLOW LINE STA. 9+26.36 BEARS S59°42'29"W 2316.16'
FROM THE EAST 1/4 CORNER OF SECTION 11, T19S, R30E, N.M.P.M.

NUMBER	STATION	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
BEGIN	0+00.00	N 32°40'24.00"	W 103°56'34.00"
1	2+99.99	N 32°40'22.47"	W 103°56'30.99"
2	6+00.01	N 32°40'20.20"	W 103°56'28.73"
END	9+26.36	N 32°40'17.87"	W 103°56'26.09"

SECTION CORNER	LATITUDE (NAD 83)	LONGITUDE (NAD 83)
SW COR. SEC. 11-T19S-R30E	N 32°40'03.42"	W 103°57'04.44"
W 1/4 COR. SEC. 11-T19S-R30E	N 32°40'29.52"	W 103°57'04.45"
NW COR. SEC. 11-T19S-R30E	N 32°40'55.65"	W 103°57'04.44"
N 1/4 COR. SEC. 11-T19S-R30E	N 32°40'55.61"	W 103°56'33.58"
NE COR. SEC. 11-T19S-R30E	N 32°40'55.56"	W 103°56'02.68"
E 1/4 COR. SEC. 11-T19S-R30E	N 32°40'29.44"	W 103°56'02.70"
SE COR. SEC. 11-T19S-R30E	N 32°40'03.33"	W 103°56'02.70"

CERTIFICATE

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.

NEW MEXICO 12446 PROFESSIONAL SURVEYOR — MARSHALL

REGISTERED LAND SURVEYOR
REGISTRATION NO. 12446
STATE OF NEW MEXICO

02-02-16

Sheet 2 of 2

NOTES:
- Basis of bearing is a G.P.S. observation (Vertical Control Datum: NAVD88)

CIMAREX ENERGY CO. OF COLORADO

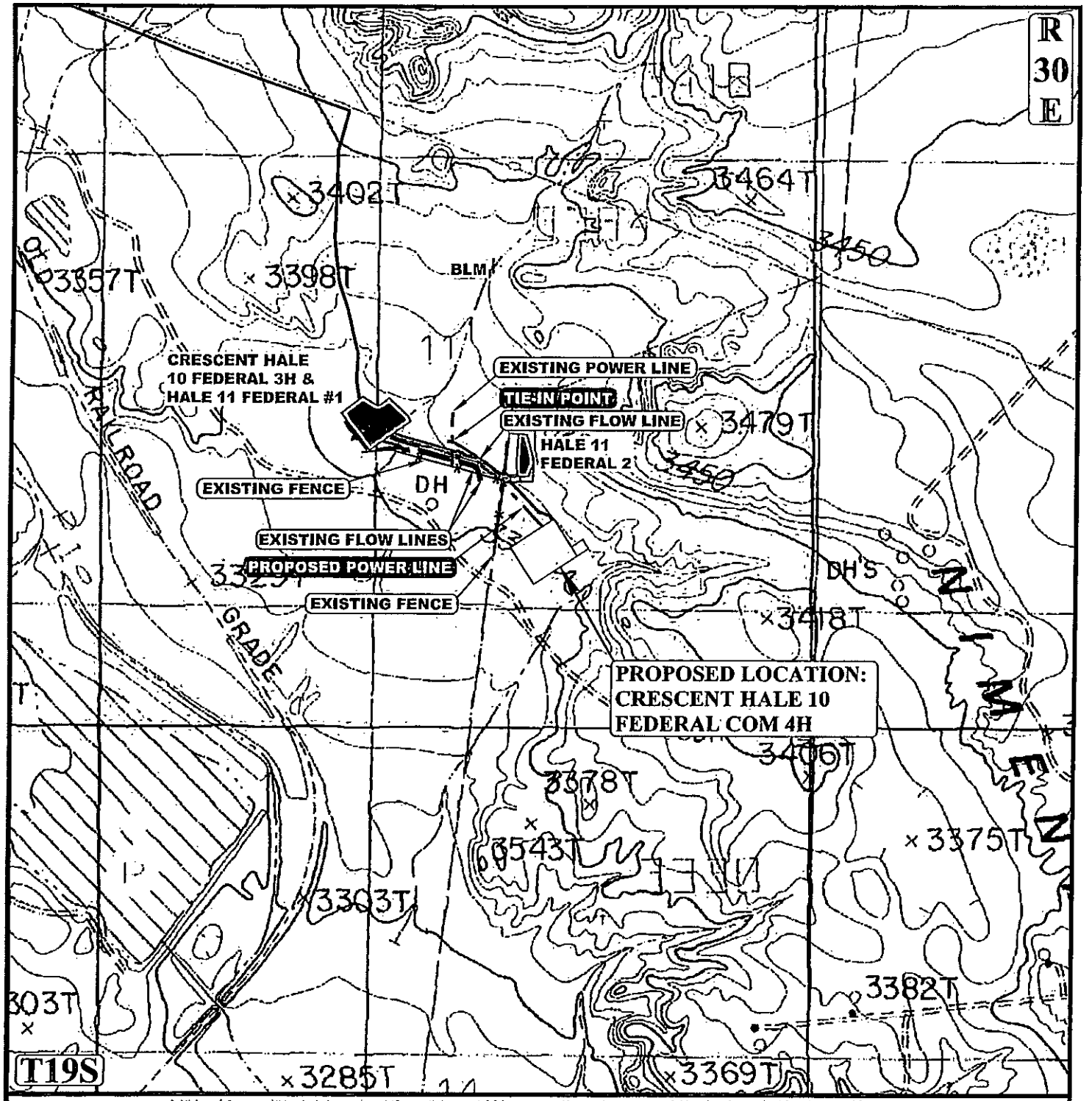
CRESCENT HALE 10 FEDERAL COM 4H
SECTION 11, T19S, R30E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

N

SURVEYED BY	DATE	REVISED BY	DATE
C.J., A.H.	01-28-16		
DRAWN BY	DATE		
T.E.	02-01-16		
SCALE	NONE		
POWER LINE R-O-W		EXHIBIT H	

UINTAH ENGINEERING & LAND SURVEYING

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



APPROXIMATE TOTAL POWER LINE DISTANCE = 926' +/-

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 POWER LINE
- EXISTING POWER LINE
- EXISTING PIPELINE / FLOW LINE

CIMAREX ENERGY CO. OF COLORADO

CRESCENT HALE 10 FEDERAL COM 4H
1257' FSL 1974' FEL
SW 1/4 SE 1/4, SECTION 11, T19S, R30E, N.M.P.M.
EDDY COUNTY, NEW MEXICO

N

SURVEYED BY	DATE	REVISED BY	DATE
C.J., A.H.	01-28-16		
DRAWN BY	DATE		
J.L.G.	02-01-16		
SCALE	1" = 1000'		

POWER LINE MAP | EXHIBIT H

UINTAH ENGINEERING & LAND SURVEYING

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

1. Geological Formations

TVD of target 8,585 Pilot Hole TD N/A
MD at TD 16,946 Deepest expected fresh water 100

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone	Hazards
Rustler	380	N/A	
Salt	600	N/A	
Base Salt	1850	N/A	
Sevin Rivers	2250	N/A	
Capitan	3790	N/A	
Delaware Sands	4250	N/A	
Bone Spring LS	6075	N/A	
1st BSS	7550	N/A	
2nd BSS	8370	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
26	0	400	20"	94.00	J-55	BT&C	2.84	11.53	37.29
17 1/2	0	1930 ~~2050~~	13-3/8"	54.50	J-55	BT&C	1.51	2.52	7.63
12 1/4	0	4100 ~~4250~~	9-5/8"	36.00	J-55	LT&C	1.54	1.82	2.97
8 3/4	0	7933	5-1/2"	17.00	L-80	LT&C	1.66	2.04	2.32
8 3/4	7933	16946	5-1/2"	17.00	L-80	BT&C	1.53	1.88	35.82
				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

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
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?	Y
If yes, does production casing cement tie back a minimum of 50' above the Reef?	Y
Is well within the designated 4 string boundary.	Y
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?	N
If yes, are there two strings cemented to surface?	N
(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 ft3/sack	H2O gal/sk	500# Comp. Strength (hours)	Slurry Description
Surface	562	14.80	1.34	6.57	9.5	Tail: Class C + LCM
Intermediate	905	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	267	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Intermediate 2 - Stage #2	465	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	DV/ECP Tool 2200'					
Intermediate 2 - Stage #1	297	12.90	1.88	9.65	12	Lead: 35:65 (Poz:C) + Salt + Bentonite
	248	14.80	1.34	6.32	9.5	Tail: Class C + LCM
Production	521	10.80	2.35	9.60	17:43	Lead: Tuned Light I Class H.
	1927	14.20	1.30	5.86	14:30	Tail: 50:50 (Poz:H) + Salt + Bentonite + Fluid Loss + Dispersant + SMS

DV tool depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
Surface	0	25
Intermediate	0	44
Intermediate 2 - Stage #1	2200	39
Production	~~4030~~ 3740	12

See COA

See COA

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
17 1/2	21	2M	Annular	X	50% of working pressure
			Blind Ram		2M
			Pipe Ram		
			Double Ram		
			Other		
12 1/4	13 5/8	2M	Annular	X	50% of working pressure
			Blind Ram	X	2M
			Pipe Ram		
			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		

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.

	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 400'	FW Spud Mud	8.30 - 8.80	28	N/C
400' to 2050' 1930	Brine Water	9.70 - 10.20	30-32	N/C
2050' to 4250' 4100	Fresh Water	8.30 - 8.80	28	N/C
4250' to 16946'	FW/Cut Brine	8.70 - 9.20	30-32	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 fromTD 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	4107 psi
Abnormal Temperature	No

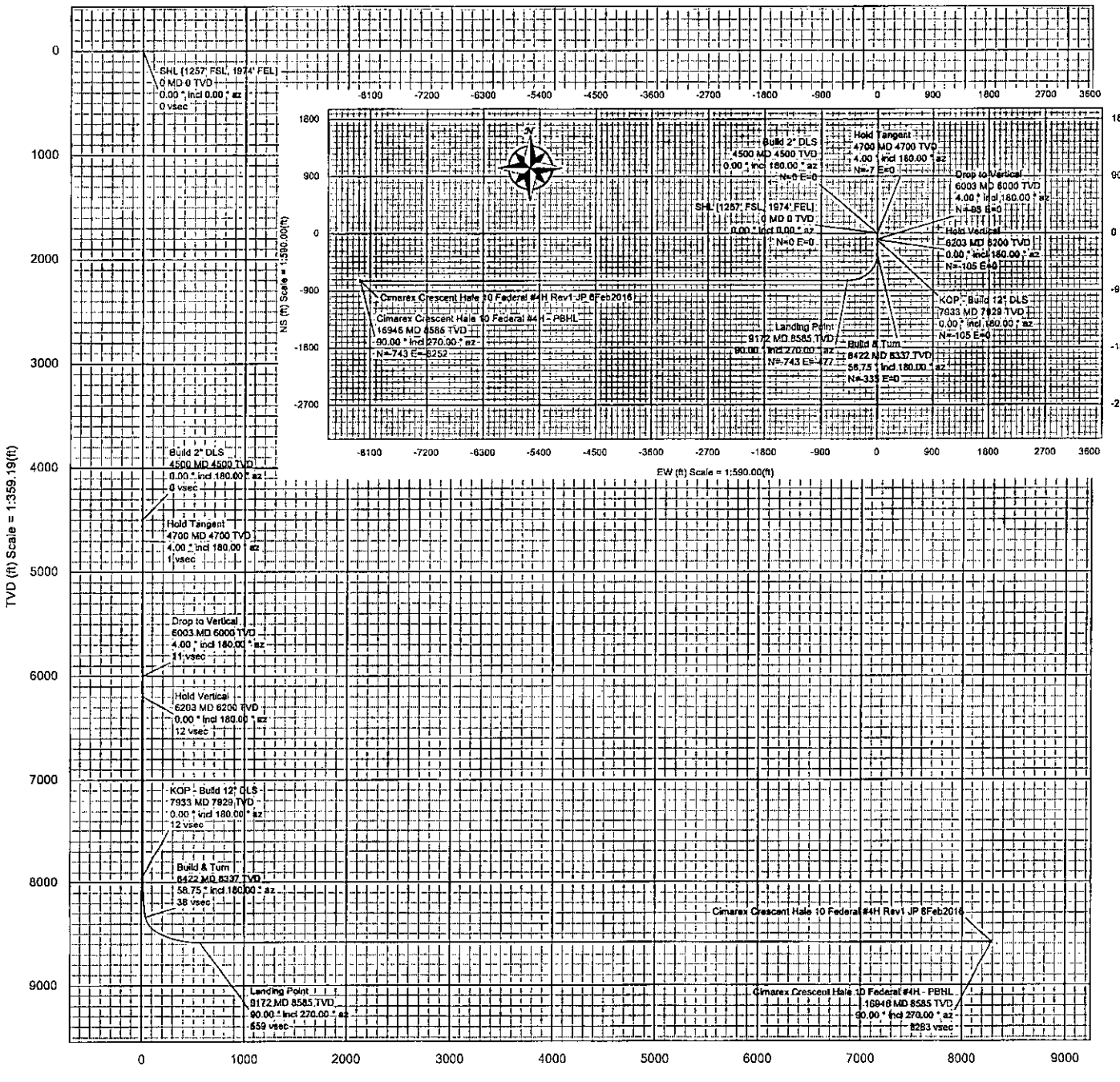
	Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be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

8. Other Facets of Operation

Schlumberger Cimarex Rev1 CIMAREX

Borehole:	Well:	Field:	Structure:
Original Borehole	Crescent Hale 10 Federal #4H	NM Eddy County (NAD 83)	TBD

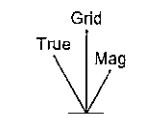
Gravity & Magnetic Parameters					Surface Location	NAD83 New Mexico State Plane, Eastern Zone, US Feet				Miscellaneous			
Model:	HDGM 2015	Dip: 60.539°	Date:	03-Feb-2016	Lat:	N 32 40 16.80	Northing:	609085.16nUS	Grid Conv:	0.2121°	Slot:	#4H	TVD Ref:	Unknown(3350 ft above MSL)
MagDec:	7.628°	FS: 48463.921nT	Gravity FS:	998.619mgn (9.80665 Based)	Lon:	W 103 58 25.78	Easting:	562217.77US	Scale Fact:	0.99992582	Plan:	Rev1 JP 8Feb2016		



Vertical Section (ft) Azim = 263.483° Scale = 1:359.19(ft) Origin = 0N/-S, 0E/-W

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL (1257' FSL, 1974' FEL)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
Build 2° DLS	4500.00	0.00	180.00	4500.00	0.00	0.00	0.00	0.00
Hold Tangent	4700.00	4.00	180.00	4699.64	0.83	-6.98	0.00	2.00
Drop to Vertical	6003.34	4.00	180.00	6000.00	8.77	-97.89	0.00	0.00
Hold Vertical	6203.34	0.00	180.00	6199.84	9.40	-104.87	0.00	2.00
KOP - Build 12° DLS	7932.61	0.00	180.00	7929.11	9.40	-104.87	0.00	0.00
Build & Turn	8422.19	58.75	180.00	8337.30	29.99	-334.64	0.00	12.00
Landing Point	9172.21	90.00	270.00	8585.00	542.14	-742.83	-477.46	12.00
Cimarex Crescent Hale 10 Federal #4H - PBHL	16946.44	90.00	270.00	8585.00	8285.06	-742.80	-8251.71	0.00



Grid North
Tot Corr (M->G 7.416°)
Mag Dec (7.628°)
Grid Conv (0.212°)

CONTROLLED

Schlumberger

Cimarex Crescent Hale 10 Federal #4H Rev1 JP 8Feb2016 Proposal
Geodetic Report
(Non-Def Plan)

CIMAREX

Report Date:	February 08, 2016 - 09:50 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Cimarex	**Vertical Section Azimuth:**	264.858 ° (Grid North)
Field:	NM Eddy County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Cimarex Crescent Hale 10 Federal #4H / Cimarex Crescent Hale 10 Federal #4H	**TVD Reference Datum:**	Unknown
Well:	Cimarex Crescent Hale 10 Federal #4H	**TVD Reference Elevation:**	3350.600 ft above MSL
Borehole:	Original Borehole	**Seabed / Ground Elevation:**	3350.600 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	7.628 °
Survey Name:	Cimarex Crescent Hale 10 Federal #4H Rev1 JP 8Feb2016	**Total Gravity Field Strength:**	998.5192mgn (9.80665 Based)
Survey Date:	February 03, 2016	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	156.751 ° / 8805.540 ft / 6.435 / 1.026	**Total Magnetic Field Strength:**	48463.821 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	60.598 °
Location Lat / Long:	N 32° 40' 15.80357", W 103° 56' 25.78357"	**Declination Date:**	February 03, 2016
Location Grid N/E Y/X:	N 608085.150 ftUS, E 662217.700 ftUS	**Magnetic Declination Model:**	HDGM 2015
CRS Grid Convergence Angle:	0.2121 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99992582	**Grid Convergence Used:**	0.2121 °
Version / Patch:	2.9.365.0	**Total Corr Mag North->Grid North:**	7.4155 °
		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 [1257' FSL, 1974' FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
Build 2° DLS	4500.00	0.00	180.00	4500.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
Hold Tangent	4700.00	4.00	180.00	4699.84	0.63	-6.98	0.00	2.00	608078.17	662217.70	N 32 40 15.73	W 103 56 25.78
Drop to Vertical	6003.34	4.00	180.00	6000.00	8.77	-97.89	0.00	0.00	607987.26	662217.70	N 32 40 14.83	W 103 56 25.79
Hold Vertical	6203.34	0.00	180.00	6199.84	9.40	-104.87	0.00	2.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
KOP - Build 12° DLS	7932.61	0.00	180.00	7929.11	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
Build & Turn	8422.19	58.75	180.00	8337.30	29.99	-334.64	0.00	12.00	607750.53	662217.70	N 32 40 12.49	W 103 56 25.80
Landing Point	9172.21	90.00	270.00	8585.00	542.14	-742.83	-477.48	12.00	607342.38	661740.26	N 32 40 8.47	W 103 56 31.40
Cimarex Crescent Hale 10 Federal #4H - PBHL	16946.44	90.00	270.00	8585.00	8285.08	-742.60	-8251.71	0.00	607342.61	653966.62	N 32 40 8.75	W 103 58 2.34

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)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	16946.437	1/100.000	30.000	30.000		SLB_MWD-STD	Original Borehole / Cimarex Crescent Hale 10 Federal #4H

Schlumberger

Cimarex Crescent Hale 10 Federal #4H Rev1 JP 8Feb2016 Proposal
Geodetic Report
(Non-Def Plan)

CIMAREX

Report Date:	February 08, 2016 - 09:50 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Cimarex	**Vertical Section Azimuth:**	264.858 ° (Grid North)
Field:	NM Eddy County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Cimarex Crescent Hale 10 Federal #4H / Cimarex Crescent Hale 10 Federal #4H	**TVD Reference Datum:**	Unknown
Well:	Cimarex Crescent Hale 10 Federal #4H	**TVD Reference Elevation:**	3350.600 ft above MSL
Borehole:	Original Borehole	**Seabed / Ground Elevation:**	3350.600 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	7.628 °
Survey Name:	Cimarex Crescent Hale 10 Federal #4H Rev1 JP 8Feb2016	**Total Gravity Field Strength:**	998.5192mgn (9.80665 Based)
Survey Date:	February 03, 2016	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	156.751 ° / 8805.540 ft / 6.435 / 1.026	**Total Magnetic Field Strength:**	48463.821 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	60.598 °
Location Lat / Long:	N 32° 40' 15.80357", W 103° 56' 25.78357"	**Declination Date:**	February 03, 2016
Location Grid N/E Y/X:	N 608085.150 RUS, E 662217.700 ftUS	**Magnetic Declination Model:**	HDGM 2015
CRS Grid Convergence Angle:	0.2121 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99992582	**Grid Convergence Used:**	0.2121 °
Version / Patch:	2.9.365.0	**Total Corr Mag North->Grid North:**	7.4155 °
		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 [1257' FSL, 1974' FEL]	0.00	0.00	0.00	0.00	0.00	0.00	0.00	N/A	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	100.00	0.00	180.00	100.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	200.00	0.00	180.00	200.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	300.00	0.00	180.00	300.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	400.00	0.00	180.00	400.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	500.00	0.00	180.00	500.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	600.00	0.00	180.00	600.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	700.00	0.00	180.00	700.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	800.00	0.00	180.00	800.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	900.00	0.00	180.00	900.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	1000.00	0.00	180.00	1000.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	1100.00	0.00	180.00	1100.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	1200.00	0.00	180.00	1200.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	1300.00	0.00	180.00	1300.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	1400.00	0.00	180.00	1400.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	1500.00	0.00	180.00	1500.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	1600.00	0.00	180.00	1600.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	1700.00	0.00	180.00	1700.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	1800.00	0.00	180.00	1800.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	1900.00	0.00	180.00	1900.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	2000.00	0.00	180.00	2000.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	2100.00	0.00	180.00	2100.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	2200.00	0.00	180.00	2200.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	2300.00	0.00	180.00	2300.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	2400.00	0.00	180.00	2400.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	2500.00	0.00	180.00	2500.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	2600.00	0.00	180.00	2600.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	2700.00	0.00	180.00	2700.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	2800.00	0.00	180.00	2800.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	2900.00	0.00	180.00	2900.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	3000.00	0.00	180.00	3000.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	3100.00	0.00	180.00	3100.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	3200.00	0.00	180.00	3200.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	3300.00	0.00	180.00	3300.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	3400.00	0.00	180.00	3400.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	3500.00	0.00	180.00	3500.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	3600.00	0.00	180.00	3600.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	3700.00	0.00	180.00	3700.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	3800.00	0.00	180.00	3800.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	3900.00	0.00	180.00	3900.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	4000.00	0.00	180.00	4000.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	4100.00	0.00	180.00	4100.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	4200.00	0.00	180.00	4200.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	4300.00	0.00	180.00	4300.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	4400.00	0.00	180.00	4400.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
Build 2° DLS	4500.00	0.00	180.00	4500.00	0.00	0.00	0.00	0.00	608085.15	662217.70	N 32 40 15.80	W 103 56 25.78
	4600.00	2.00	180.00	4599.98	0.16	-1.75	0.00	2.00	608083.40	662217.70	N 32 40 15.79	W 103 56 25.78
Hold Tangent	4700.00	4.00	180.00	4699.84	0.63	-6.98	0.00	2.00	608078.17	662217.70	N 32 40 15.73	W 103 56 25.78
	4800.00	4.00	180.00	4799.59	1.25	-13.95	0.00	0.00	608071.20	662217.70	N 32 40 15.67	W 103 56 25.78
	4900.00	4.00	180.00	4899.35	1.88	-20.93	0.00	0.00	608064.22	662217.70	N 32 40 15.60	W 103 56 25.78
	5000.00	4.00	180.00	4999.11	2.50	-27.91	0.00	0.00	608057.25	662217.70	N 32 40 15.53	W 103 56 25.78
	5100.00	4.00	180.00	5098.86	3.13	-34.88	0.00	0.00	608050.27	662217.70	N 32 40 15.46	W 103 56 25.79
	5200.00	4.00	180.00	5198.62	3.75	-41.86	0.00	0.00	608043.30	662217.70	N 32 40 15.39	W 103 56 25.79
	5300.00	4.00	180.00	5298.38	4.38	-48.83	0.00	0.00	608036.32	662217.70	N 32 40 15.32	W 103 56 25.79
	5400.00	4.00	180.00	5398.13	5.00	-55.81	0.00	0.00	608029.35	662217.70	N 32 40 15.25	W 103 56 25.79
	5500.00	4.00	180.00	5497.89	5.63	-62.78	0.00	0.00	608022.37	662217.70	N 32 40 15.18	W 103 56 25.79
	5600.00	4.00	180.00	5597.65	6.25	-69.76	0.00	0.00	608015.40	662217.70	N 32 40 15.11	W 103 56 25.79
	5700.00	4.00	180.00	5697.40	6.88	-76.73	0.00	0.00	608008.42	662217.70	N 32 40 15.04	W 103 56 25.79
	5800.00	4.00	180.00	5797.16	7.50	-83.71	0.00	0.00	608001.45	662217.70	N 32 40 14.98	W 103 56 25.79
	5900.00	4.00	180.00	5896.91	8.13	-90.69	0.00	0.00	607994.47	662217.70	N 32 40 14.91	W 103 56 25.79
	6000.00	4.00	180.00	5996.67	8.75	-97.66	0.00	0.00	607987.50	662217.70	N 32 40 14.84	W 103 56 25.79
Drop to Vertical	6003.34	4.00	180.00	6000.00	8.77	-97.89	0.00	0.00	607987.26	662217.70	N 32 40 14.83	W 103 56 25.79

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 ° ' ")
	6100.00	2.07	180.00	6096.52	9.23	-103.01	0.00	2.00	607982.15	662217.70	N 32 40 14.78	W 103 56 25.79
	6200.00	0.07	180.00	6196.50	9.40	-104.87	0.00	2.00	607980.29	662217.70	N 32 40 14.77	W 103 56 25.79
Hold Vertical	6203.34	0.00	180.00	6199.84	9.40	-104.87	0.00	2.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	6300.00	0.00	180.00	6296.50	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	6400.00	0.00	180.00	6396.50	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	6500.00	0.00	180.00	6496.50	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	6600.00	0.00	180.00	6596.50	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	6700.00	0.00	180.00	6696.50	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	6800.00	0.00	180.00	6796.50	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	6900.00	0.00	180.00	6896.50	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	7000.00	0.00	180.00	6996.50	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	7100.00	0.00	180.00	7096.50	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	7200.00	0.00	180.00	7196.50	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	7300.00	0.00	180.00	7296.50	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	7400.00	0.00	180.00	7396.50	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	7500.00	0.00	180.00	7496.50	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	7600.00	0.00	180.00	7596.50	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	7700.00	0.00	180.00	7696.50	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	7800.00	0.00	180.00	7796.50	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	7900.00	0.00	180.00	7896.50	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
KOP - Build 12° DLS	7932.61	0.00	180.00	7929.11	9.40	-104.87	0.00	0.00	607980.28	662217.70	N 32 40 14.77	W 103 56 25.79
	8000.00	8.09	180.00	7996.28	9.83	-109.62	0.00	12.00	607975.54	662217.70	N 32 40 14.72	W 103 56 25.79
	8100.00	20.09	180.00	8093.09	12.00	-133.92	0.00	12.00	607951.24	662217.70	N 32 40 14.48	W 103 56 25.79
	8200.00	32.09	180.00	8182.74	15.94	-177.81	0.00	12.00	607907.35	662217.70	N 32 40 14.04	W 103 56 25.79
	8300.00	44.09	180.00	8261.31	21.46	-239.38	0.00	12.00	607845.79	662217.70	N 32 40 13.44	W 103 56 25.79
	8400.00	56.09	180.00	8325.35	28.32	-315.94	0.00	12.00	607769.23	662217.70	N 32 40 12.68	W 103 56 25.80
Build & Turn	8422.19	58.75	180.00	8337.30	29.99	-334.64	0.00	12.00	607750.53	662217.70	N 32 40 12.49	W 103 56 25.80
	8500.00	59.21	190.89	8377.49	42.23	-400.87	-6.33	12.00	607684.31	662211.37	N 32 40 11.84	W 103 56 25.87
	8600.00	61.10	204.56	8427.42	75.90	-483.16	-32.73	12.00	607602.02	662184.98	N 32 40 11.02	W 103 56 26.19
	8700.00	64.32	217.58	8473.43	128.35	-558.97	-78.56	12.00	607526.23	662139.14	N 32 40 10.28	W 103 56 26.73
	8800.00	68.61	229.81	8513.48	197.28	-624.97	-141.84	12.00	607460.23	662075.87	N 32 40 9.63	W 103 56 27.47
	8900.00	73.74	241.27	8545.83	279.69	-678.28	-219.78	12.00	607406.92	661997.94	N 32 40 9.10	W 103 56 28.38
	9000.00	79.45	252.13	8569.07	371.96	-716.57	-308.98	12.00	607368.63	661908.74	N 32 40 8.72	W 103 56 29.43
	9100.00	85.52	262.58	8582.18	470.08	-738.17	-405.55	12.00	607347.03	661812.18	N 32 40 8.51	W 103 56 30.56
Landing Point	9172.21	90.00	270.00	8585.00	542.14	-742.83	-477.48	12.00	607342.38	661740.26	N 32 40 8.47	W 103 56 31.40
	9200.00	90.00	270.00	8585.00	569.82	-742.83	-505.27	0.00	607342.38	661712.47	N 32 40 8.47	W 103 56 31.73
	9300.00	90.00	270.00	8585.00	669.42	-742.82	-605.27	0.00	607342.38	661612.47	N 32 40 8.48	W 103 56 32.90
	9400.00	90.00	270.00	8585.00	769.01	-742.82	-705.27	0.00	607342.38	661512.48	N 32 40 8.48	W 103 56 34.07
	9500.00	90.00	270.00	8585.00	868.61	-742.82	-805.27	0.00	607342.39	661412.49	N 32 40 8.48	W 103 56 35.24
	9600.00	90.00	270.00	8585.00	968.21	-742.82	-905.27	0.00	607342.39	661312.50	N 32 40 8.49	W 103 56 36.41
	9700.00	90.00	270.00	8585.00	1067.80	-742.81	-1005.27	0.00	607342.39	661212.50	N 32 40 8.49	W 103 56 37.58
	9800.00	90.00	270.00	8585.00	1167.40	-742.81	-1105.27	0.00	607342.40	661112.51	N 32 40 8.49	W 103 56 38.75
	9900.00	90.00	270.00	8585.00	1267.00	-742.81	-1205.27	0.00	607342.40	661012.52	N 32 40 8.50	W 103 56 39.91
	10000.00	90.00	270.00	8585.00	1366.60	-742.80	-1305.27	0.00	607342.40	660912.53	N 32 40 8.50	W 103 56 41.08
	10100.00	90.00	270.00	8585.00	1466.19	-742.80	-1405.27	0.00	607342.41	660812.54	N 32 40 8.51	W 103 56 42.25
	10200.00	90.00	270.00	8585.00	1565.79	-742.80	-1505.27	0.00	607342.41	660712.54	N 32 40 8.51	W 103 56 43.42
	10300.00	90.00	270.00	8585.00	1665.39	-742.79	-1605.27	0.00	607342.41	660612.55	N 32 40 8.51	W 103 56 44.59
	10400.00	90.00	270.00	8585.00	1764.99	-742.79	-1705.27	0.00	607342.41	660512.56	N 32 40 8.52	W 103 56 45.76
	10500.00	90.00	270.00	8585.00	1864.58	-742.79	-1805.27	0.00	607342.42	660412.57	N 32 40 8.52	W 103 56 46.93
	10600.00	90.00	270.00	8585.00	1964.18	-742.79	-1905.27	0.00	607342.42	660312.57	N 32 40 8.52	W 103 56 48.10
	10700.00	90.00	270.00	8585.00	2063.78	-742.78	-2005.27	0.00	607342.42	660212.58	N 32 40 8.53	W 103 56 49.27
	10800.00	90.00	270.00	8585.00	2163.37	-742.78	-2105.27	0.00	607342.43	660112.59	N 32 40 8.53	W 103 56 50.44
	10900.00	90.00	270.00	8585.00	2262.97	-742.78	-2205.27	0.00	607342.43	660012.60	N 32 40 8.53	W 103 56 51.61
	11000.00	90.00	270.00	8585.00	2362.57	-742.77	-2305.27	0.00	607342.43	659912.60	N 32 40 8.54	W 103 56 52.78
	11100.00	90.00	270.00	8585.00	2462.17	-742.77	-2405.27	0.00	607342.44	659812.61	N 32 40 8.54	W 103 56 53.95
	11200.00	90.00	270.00	8585.00	2561.76	-742.77	-2505.27	0.00	607342.44	659712.62	N 32 40 8.55	W 103 56 55.12
	11300.00	90.00	270.00	8585.00	2661.36	-742.77	-2605.27	0.00	607342.44	659612.63	N 32 40 8.55	W 103 56 56.29
	11400.00	90.00	270.00	8585.00	2760.96	-742.76	-2705.27	0.00	607342.44	659512.63	N 32 40 8.55	W 103 56 57.46
	11500.00	90.00	270.00	8585.00	2860.55	-742.76	-2805.27	0.00	607342.45	659412.64	N 32 40 8.56	W 103 56 58.63
	11600.00	90.00	270.00	8585.00	2960.15	-742.76	-2905.27	0.00	607342.45	659312.65	N 32 40 8.56	W 103 56 59.80
	11700.00	90.00	270.00	8585.00	3059.75	-742.75	-3005.27	0.00	607342.45	659212.66	N 32 40 8.56	W 103 57 0.97
	11800.00	90.00	270.00	8585.00	3159.35	-742.75	-3105.27	0.00	607342.46	659112.66	N 32 40 8.57	W 103 57 2.14
	11900.00	90.00	270.00	8585.00	3258.94	-742.75	-3205.27	0.00	607342.46	659012.67	N 32 40 8.57	W 103 57 3.31
	12000.00	90.00	270.00	8585.00	3358.54	-742.74	-3305.27	0.00	607342.46	658912.68	N 32 40 8.57	W 103 57 4.48
	12100.00	90.00	270.00	8585.00	3458.14	-742.74	-3405.27	0.00	607342.47	658812.69	N 32 40 8.58	W 103 57 5.65
	12200.00	90.00	270.00	8585.00	3557.74	-742.74	-3505.27	0.00	607342.47	658712.70	N 32 40 8.58	W 103 57 6.82
	12300.00	90.00	270.00	8585.00	3657.33	-742.74	-3605.27	0.00	607342.47	658612.70	N 32 40 8.58	W 103 57 7.99
	12400.00	90.00	270.00	8585.00	3756.93	-742.73	-3705.27	0.00	607342.47	658512.71	N 32 40 8.59	W 103 57 9.16
	12500.00	90.00	270.00	8585.00	3856.53	-742.73	-3805.27	0.00	607342.48	658412.72	N 32 40 8.59	W 103 57 10.33
	12600.00	90.00	270.00	8585.00	3956.12	-742.73	-3905.27	0.00	607342.48	658312.73	N 32 40 8.60	W 103 57 11.50
	12700.00	90.00	270.00	8585.00	4055.72	-742.72	-4005.27	0.00	607342.48	658212.73	N 32 40 8.60	W 103 57 12.67
	12800.00	90.00	270.00	8585.00	4155.32	-742.72	-4105.27	0.00	607342.49	658112.74	N 32 40 8.60	W 103 57 13.84
	12900.00	90.00	270.00	8585.00	4254.92	-742.72	-4205.27	0.00	607342.49	658012.75	N 32 40 8.61	W 103 57 15.01
	13000.00	90.00	270.00	8585.00	4354.51	-742.71	-4305.27	0.00	607342.49	657912.76	N 32 40 8.61	W 103 57 16.18
	13100.00	90.00	270.00	8585.00	4454.11	-742.71	-4405.27	0.00	607342.50	657812.76	N 32 40 8.61	W 103 57 17.35
	13200.00	90.00	270.00	8585.00	4553.71	-742.71	-4505.27	0.00	607342.50	657712.77	N 32 40 8.62	W 103 57 18.52
	13300.00	90.00	270.00	8585.00	4653.31	-742.71	-4605.27	0.00	607342.50	657612.78	N 32 40 8.62	W 103 57 19.69
	13400.00	90.00	270.00	8585.00	4752.90	-742.70	-4705.27	0.00	607342.50	657512.79	N 32 40 8.62	W 103 57 20.86
	13500.00	90.00	270.00	8585.00	4852.50	-742.70	-4805.27	0.00	607342.51	657412.79	N 32 40 8.63	W 103 57 22.03
	13600.00	90.00	270.00	8585.00	4952.10	-742.70	-4905.27	0.00	607342.51	657312.80	N 32 40 8.63	W 103 57 23.20
	13700.00	90.00	270.00	8585.00	5051.69	-742.69	-5005.27	0.00	607342.51	657212.81	N 32 40 8.63	W 103 57 24.37
	13800.00	90.00	270.00	8585.00	5151.29	-742.69	-5105.27	0.00	607342.52	657112.82	N 32 40 8.64	W 103 57 25.54
	13900.00	90.00	270.00	8585.00	5250.89	-742.69	-5205.27	0.00	607342.52	657012.82	N 32 40 8.64	W 103 57 26.71
	14000.00	90.00	270.00	8585.00	5350.49	-742.68	-5305.27	0.00	607342.52	656912.83	N 32 40 8.65	W 103 57 27.88
	14100.00	90.00	270.00	8585.00	5450.08	-742.68	-5405.27	0.00	607342.53	656812.84	N 32 40 8.65	W 103 57 29.05
	14200.00	90.00	270.00	8585.00	5549.68	-742.68	-5505.27	0.00	607342.53	656712.85	N 32 40 8.65	W 103 57 30.22
	14300.00	90.00	270.00	8585.00	5649.28	-742.68	-5605.27	0.00	607342.53	656612.86	N 32 40 8.66	W 103 57 31.39
	14400.00	90.00	270.00	8585.00	5748.87	-742.67	-5705.27	0.00	607342.53	656512.86	N 32 40 8.66	W 103 57 32.56

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 ° ' ")
	14500.00	90.00	270.00	8585.00	5848.47	-742.67	-5805.27	0.00	607342.54	656412.87	N 32 40 8.66	W 103 57 33.73
	14600.00	90.00	270.00	8585.00	5948.07	-742.67	-5905.27	0.00	607342.54	656312.88	N 32 40 8.67	W 103 57 34.90
	14700.00	90.00	270.00	8585.00	6047.67	-742.66	-6005.27	0.00	607342.54	656212.89	N 32 40 8.67	W 103 57 36.07
	14800.00	90.00	270.00	8585.00	6147.26	-742.66	-6105.27	0.00	607342.55	656112.89	N 32 40 8.67	W 103 57 37.23
	14900.00	*90.00*	*270.00*	*8585.00*	*6246.86*	*-742.66*	*-6205.27*	*0.00*	*607342.55*	*656012.90*	*N 32 40 8.68*	*W 103 57 38.40*
	15000.00	90.00	270.00	8585.00	6346.46	-742.65	-6305.27	0.00	607342.55	655912.91	N 32 40 8.68	W 103 57 39.57
	15100.00	90.00	270.00	8585.00	6446.06	-742.65	-6405.27	0.00	607342.55	655812.92	N 32 40 8.68	W 103 57 40.74
	15200.00	90.00	270.00	8585.00	6545.65	-742.65	-6505.27	0.00	607342.56	655712.92	N 32 40 8.69	W 103 57 41.91
	15300.00	90.00	270.00	8585.00	6645.25	-742.65	-6605.27	0.00	607342.56	655612.93	N 32 40 8.69	W 103 57 43.08
	15400.00	90.00	270.00	8585.00	6744.85	-742.64	-6705.27	0.00	607342.56	655512.94	N 32 40 8.69	W 103 57 44.25
	15500.00	90.00	270.00	8585.00	6844.44	-742.64	-6805.27	0.00	607342.57	655412.95	N 32 40 8.70	W 103 57 45.42
	15600.00	90.00	270.00	8585.00	6944.04	-742.64	-6905.27	0.00	607342.57	655312.95	N 32 40 8.70	W 103 57 46.59
	15700.00	90.00	270.00	8585.00	7043.64	-742.63	-7005.27	0.00	607342.57	655212.96	N 32 40 8.70	W 103 57 47.76
	15800.00	90.00	270.00	8585.00	7143.24	-742.63	-7105.27	0.00	607342.58	655112.97	N 32 40 8.71	W 103 57 48.93
	15900.00	90.00	270.00	8585.00	7242.83	-742.63	-7205.27	0.00	607342.58	655012.98	N 32 40 8.71	W 103 57 50.10
	16000.00	90.00	270.00	8585.00	7342.43	-742.62	-7305.27	0.00	607342.58	654912.98	N 32 40 8.72	W 103 57 51.27
	16100.00	90.00	270.00	8585.00	7442.03	-742.62	-7405.27	0.00	607342.58	654812.99	N 32 40 8.72	W 103 57 52.44
	16200.00	90.00	270.00	8585.00	7541.63	-742.62	-7505.27	0.00	607342.59	654713.00	N 32 40 8.72	W 103 57 53.61
	16300.00	90.00	270.00	8585.00	7641.22	-742.62	-7605.27	0.00	607342.59	654613.01	N 32 40 8.73	W 103 57 54.78
	16400.00	90.00	270.00	8585.00	7740.82	-742.61	-7705.27	0.00	607342.59	654513.02	N 32 40 8.73	W 103 57 55.95
	16500.00	90.00	270.00	8585.00	7840.42	-742.61	-7805.27	0.00	607342.60	654413.02	N 32 40 8.73	W 103 57 57.12
	16600.00	90.00	270.00	8585.00	7940.01	-742.61	-7905.27	0.00	607342.60	654313.03	N 32 40 8.74	W 103 57 58.29
	16700.00	90.00	270.00	8585.00	8039.61	-742.60	-8005.27	0.00	607342.60	654213.04	N 32 40 8.74	W 103 57 59.46
	16800.00	90.00	270.00	8585.00	8139.21	-742.60	-8105.27	0.00	607342.61	654113.05	N 32 40 8.74	W 103 58 0.63
	16900.00	90.00	270.00	8585.00	8238.81	-742.60	-8205.27	0.00	607342.61	654013.05	N 32 40 8.75	W 103 58 1.80
Cimarex Crescent Hale 10 Federal #4H - PBHL	16946.44	90.00	270.00	8585.00	8285.06	-742.60	-8251.71	0.00	607342.61	653966.62	N 32 40 8.75	W 103 58 2.34

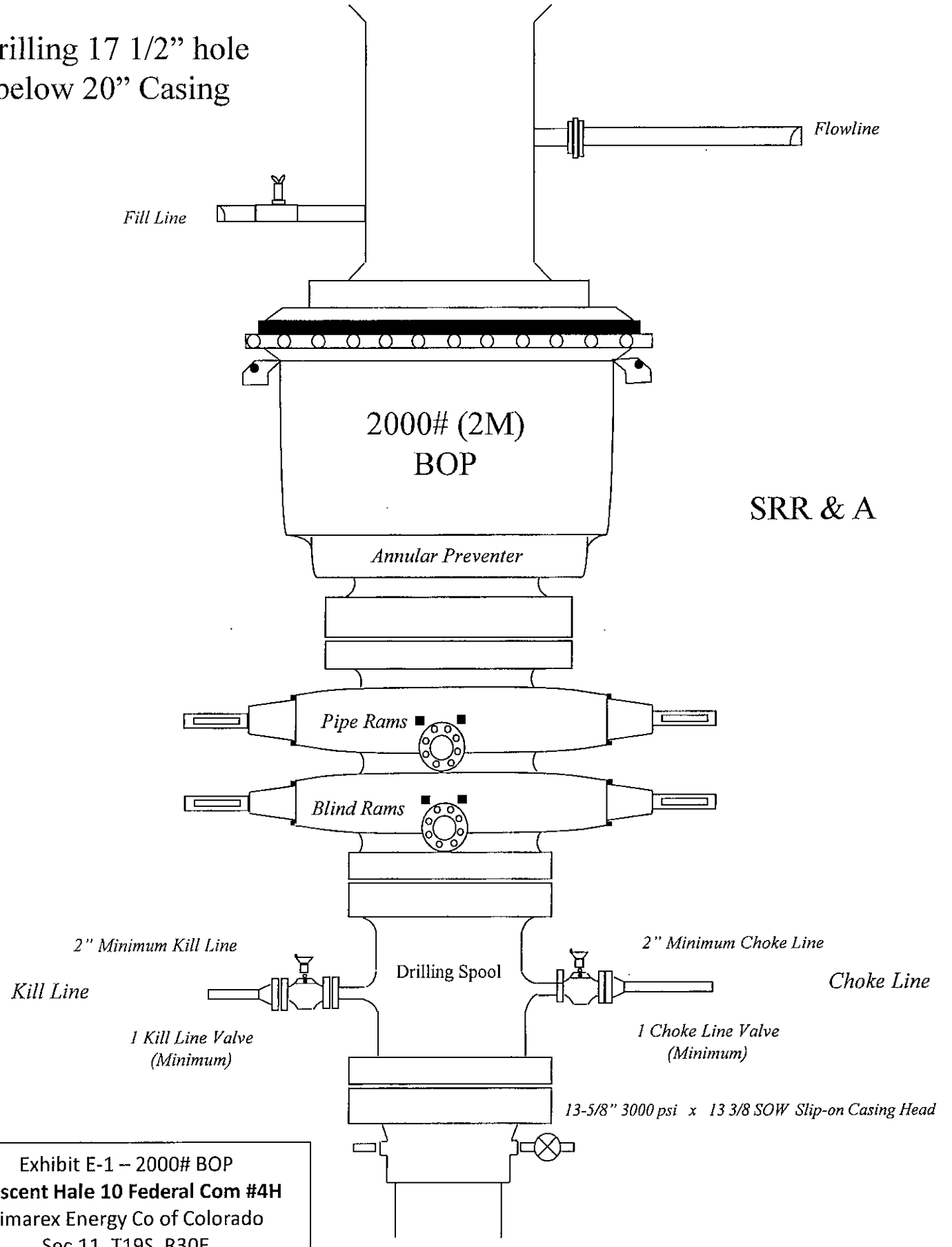
Survey Type: Non-Def Plan

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)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	16946.437	1/100.000	30.000	30.000		SLB_MWD-STD	Original Borehole / Cimarex Crescent Hale 10 Federal #4H

Drilling 17 1/2" hole
below 20" Casing



SRR & A

Exhibit E-1 -- 2000# BOP
Crescent Hale 10 Federal Com #4H
Cimarex Energy Co of Colorado
Sec 11, T19S, R30E
Eddy County, NM

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

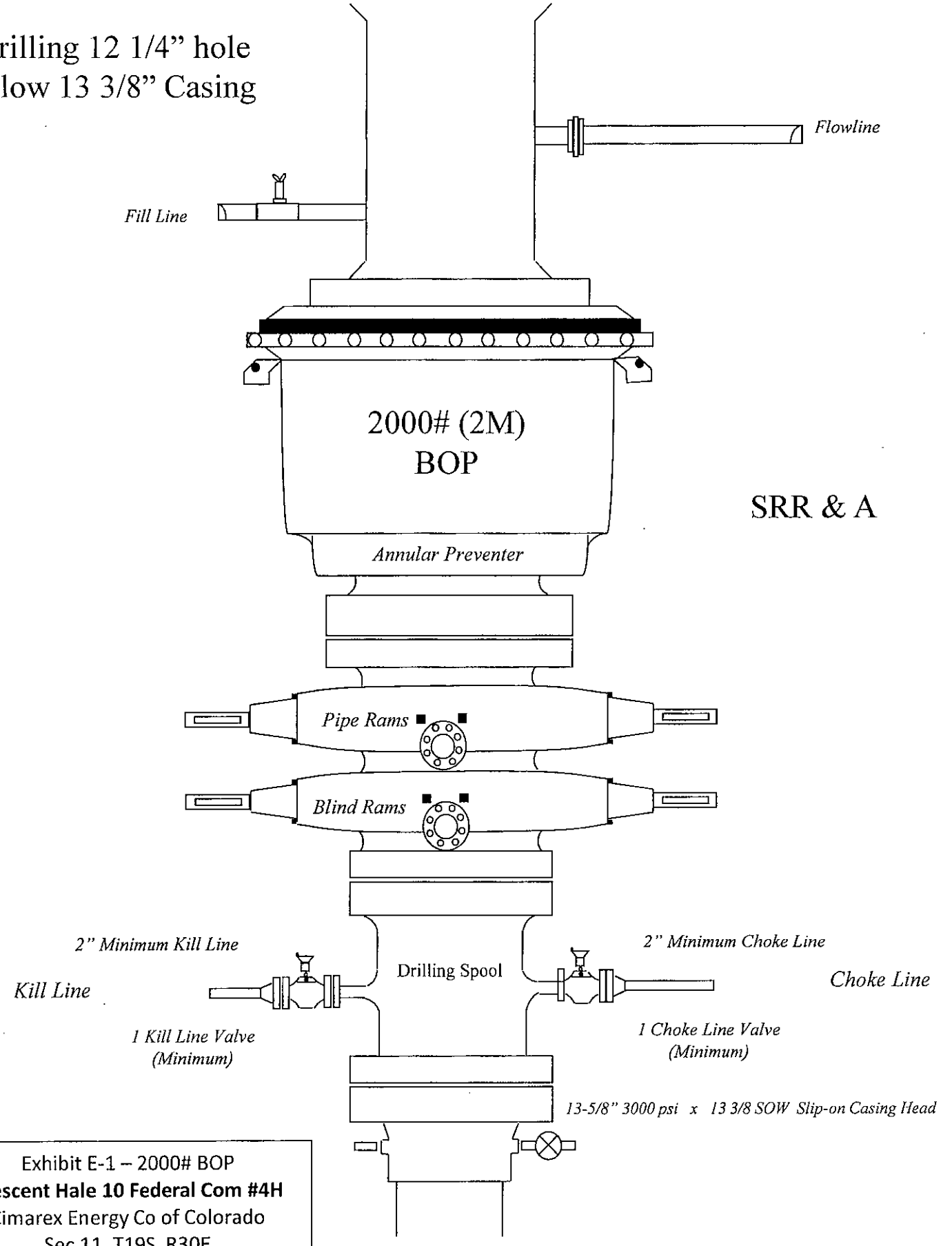
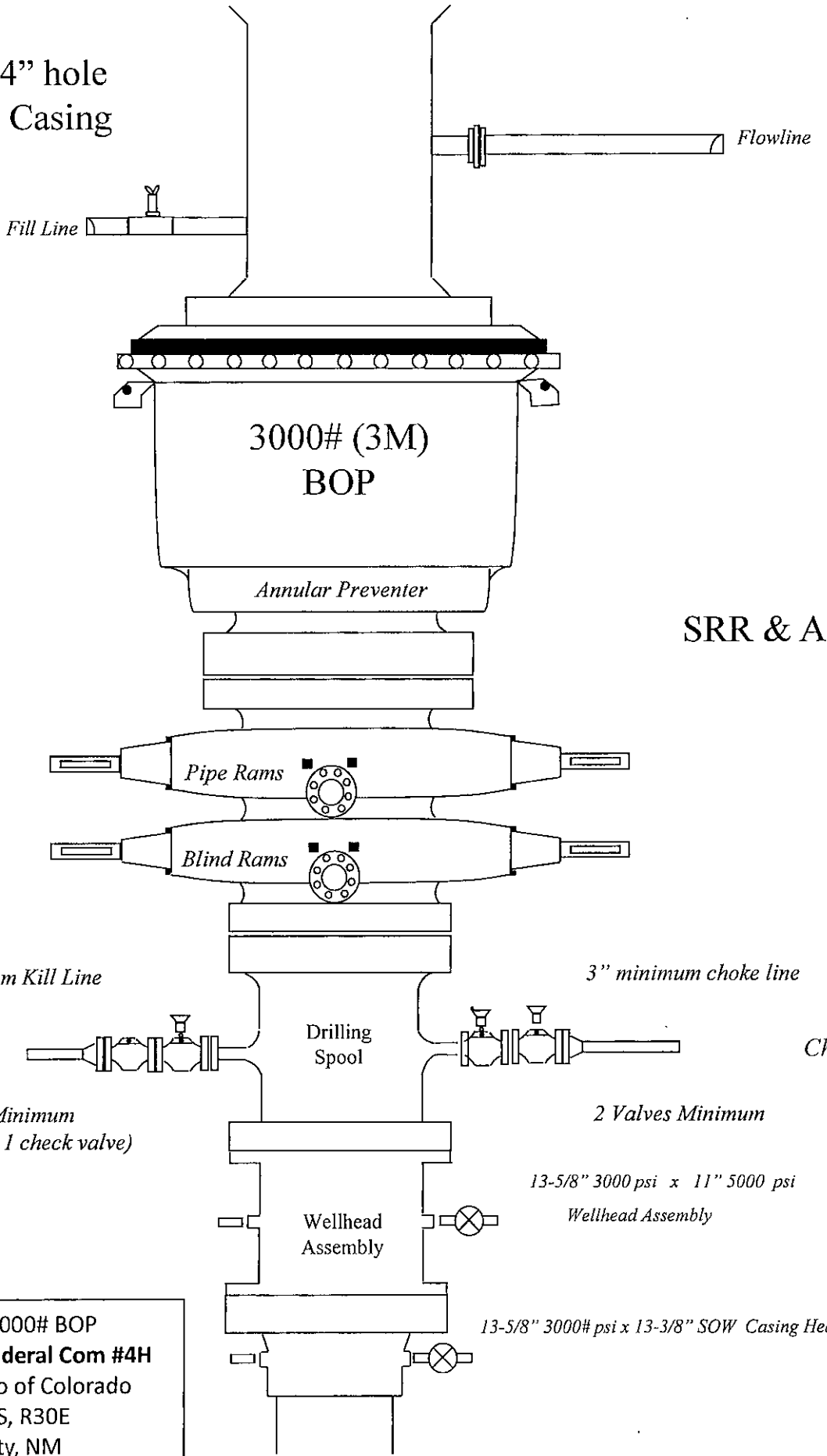


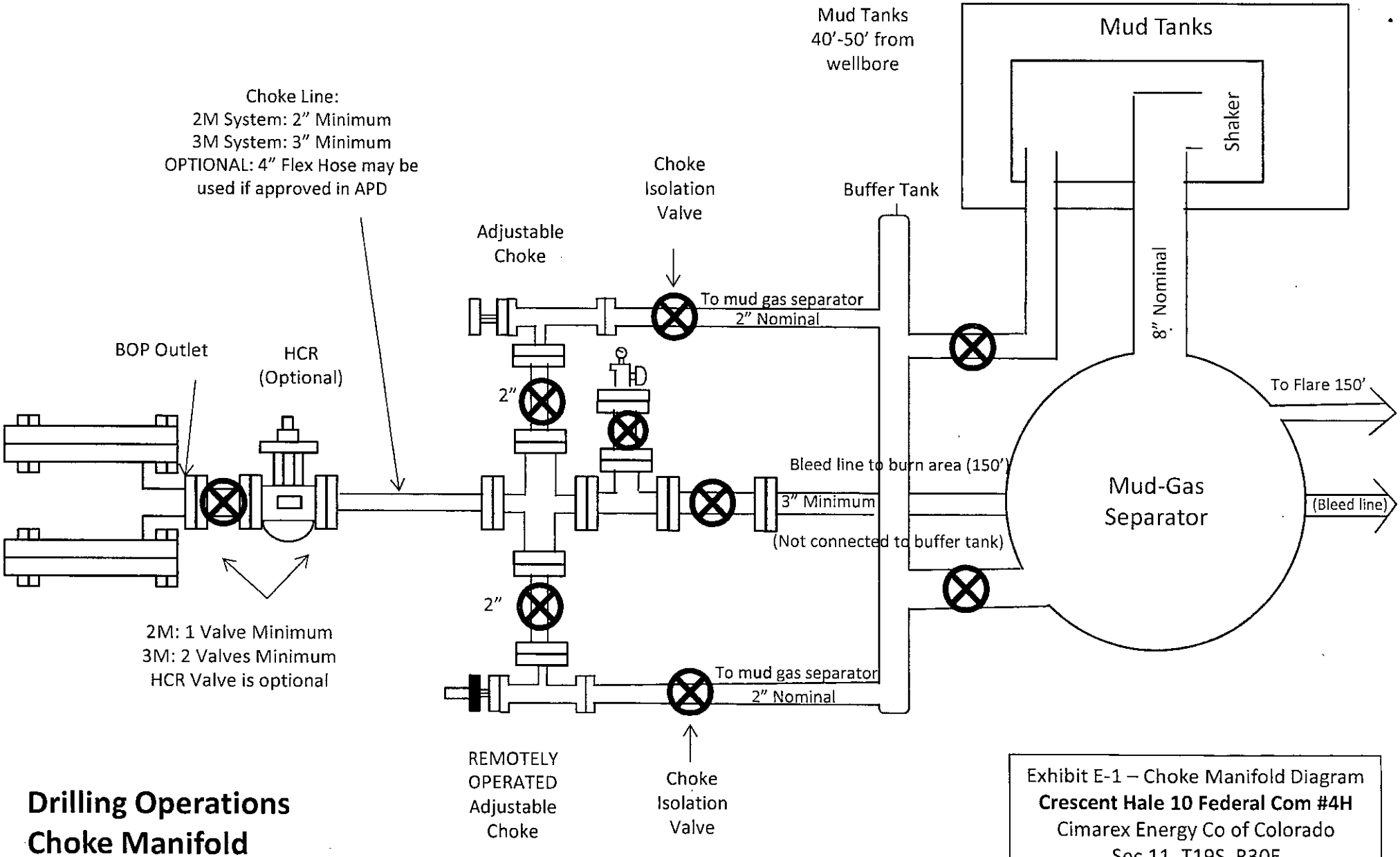
Exhibit E-1 – 2000# BOP
Crescent Hale 10 Federal Com #4H
Cimarex Energy Co of Colorado
Sec 11, T19S, R30E
Eddy County, NM

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



SRR & A

Exhibit E-1 – 3000# BOP
Crescent Hale 10 Federal Com #4H
Cimarex Energy Co of Colorado
Sec 11, T19S, R30E
Eddy County, NM



Drilling Operations
Choke Manifold
2M/3M Service

Exhibit E-1 – Choke Manifold Diagram
Crescent Hale 10 Federal Com #4H
Cimarex Energy Co of Colorado
Sec 11, T19S, R30E
Eddy County, NM

Exhibit F-1
Crescent Hale 10 Federal Com #4H
Cimarex Energy Co of Colorado
Sec 11, T19S, R30E
Eddy County, NM

Midwest Hose
& Specialty, Inc.

INTERNAL HYDROSTATIC TEST REPORT

Customer:	P.O. Number:
Oderco Inc	odyd-271

HOSE SPECIFICATIONS

Type:	Hose Length:
Stainless Steel Armor Choke & Kill Hose	45'ft.

I.D.	O.D.
4 INCHES	9 INCHES

WORKING PRESSURE	TEST PRESSURE	BURST PRESSURE
10,000 PSI	15,000 PSI	0 PSI

COUPLINGS

Stem Part No.	Ferrule No.
OKC OKC	OKC OKC
Type of Coupling:	
Swage-It	

PROCEDURE

Hose assembly pressure tested with water at ambient temperature.

TIME HELD AT TEST PRESSURE	ACTUAL BURST PRESSURE:
15 MIN.	0 PSI

Hose Assembly Serial Number:	Hose Serial Number:
79793	OKC

Comments:

Date:	Tested:	Approved:
3/8/2011	A. Jaime Jaime	

Midwest Hose & Specialty, Inc.

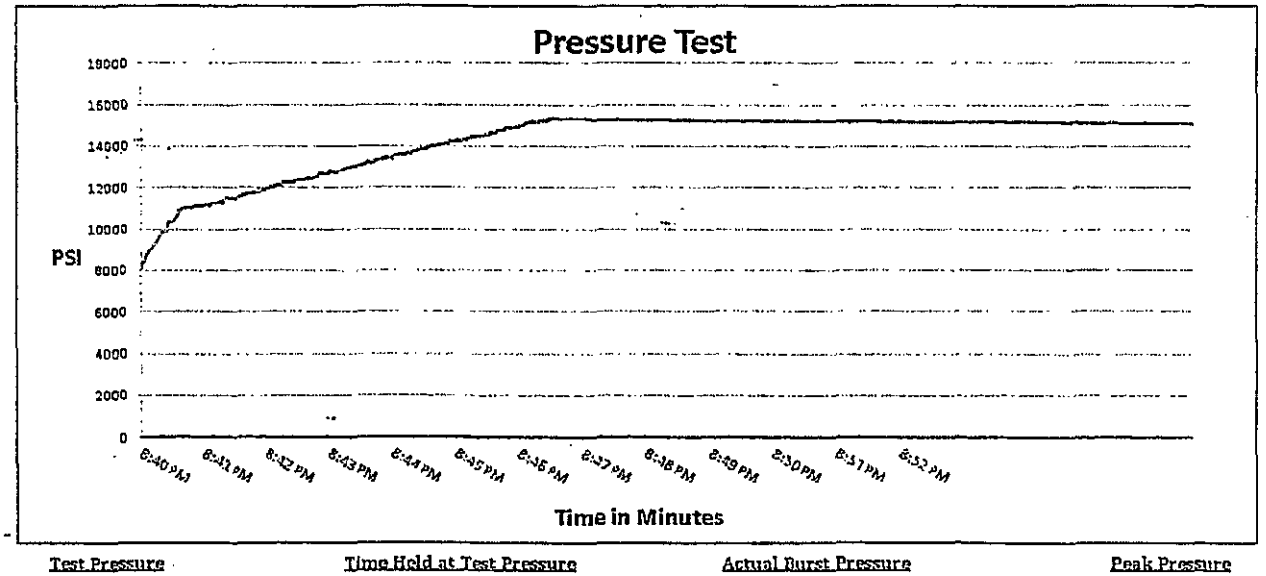
Internal Hydrostatic Test Graph

March 3, 2011

Customer: Houston

Pick Ticket #: 94260

Hose Specifications		Verification	
Hose Type: C & K	Length: 45'	Type of Fitting: 4 1/16 10K	Coupling Method: Swage
I.D.: 4"	O.D.: 6.09"	Die Size: 6.36"	Final O.D.: 6.25"
Working Pressure: 10000 PSI	Burst Pressure: Standard Safety Multiplier Applies	Hose Serial #: 5544	Hose Assembly Serial #: 79793



Test Pressure	Time Held at Test Pressure	Actual Burst Pressure	Peak Pressure
15000 PSI	11 Minutes		15483 PSI

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

Tested By: *Zac Mcconnell*

Approved By: *Kim Thomas*

Exhibit F-1 – Co-Flex Hose Hydrostatic Test
Crescent Hale 10 Federal Com #4H
Cimarex Energy Co of Colorado
Sec 11, T19S, R30E
Eddy County, NM

Exhibit F-2 – Co-Flex Hose
Crescent Hale 10 Federal Com #4H
Cimarex Energy Co of Colorado
Sec 11, T19S, R30E
Eddy County, NM

Midwest Hose
& Specialty, Inc.

Certificate of Conformity

Customer: DEM	**PO** ODYD-271

SPECIFICATIONS

Sales Order 79793	**Dated:** 3/8/2011

We hereby cerify that the material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards

Supplier:
Midwest Hose & Specialty, Inc.
10640 Tanner Road
Houston, Texas 77041

Comments:

Approved:	**Date:** 3/8/2011

Midwest Hose & Specialty, Inc.

Exhibit F -3– Co-Flex Hose
Crescent Hale 10 Federal Com #4H
Cimarex Energy Co of Colorado
Sec 11, T19S, R30E
Eddy County, NM

Specification Sheet
Choke & Kill Hose

The Midwest Hose & Specialty Choke & Kill hose is manufactured with only premium componets.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 vermculite 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, unibolt 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)

P.O. Box 96558 – 1421 S.E. 29th St. Oklahoma City, OK 73143 * (405) 670-6718 * Fax: (405) 670-6816

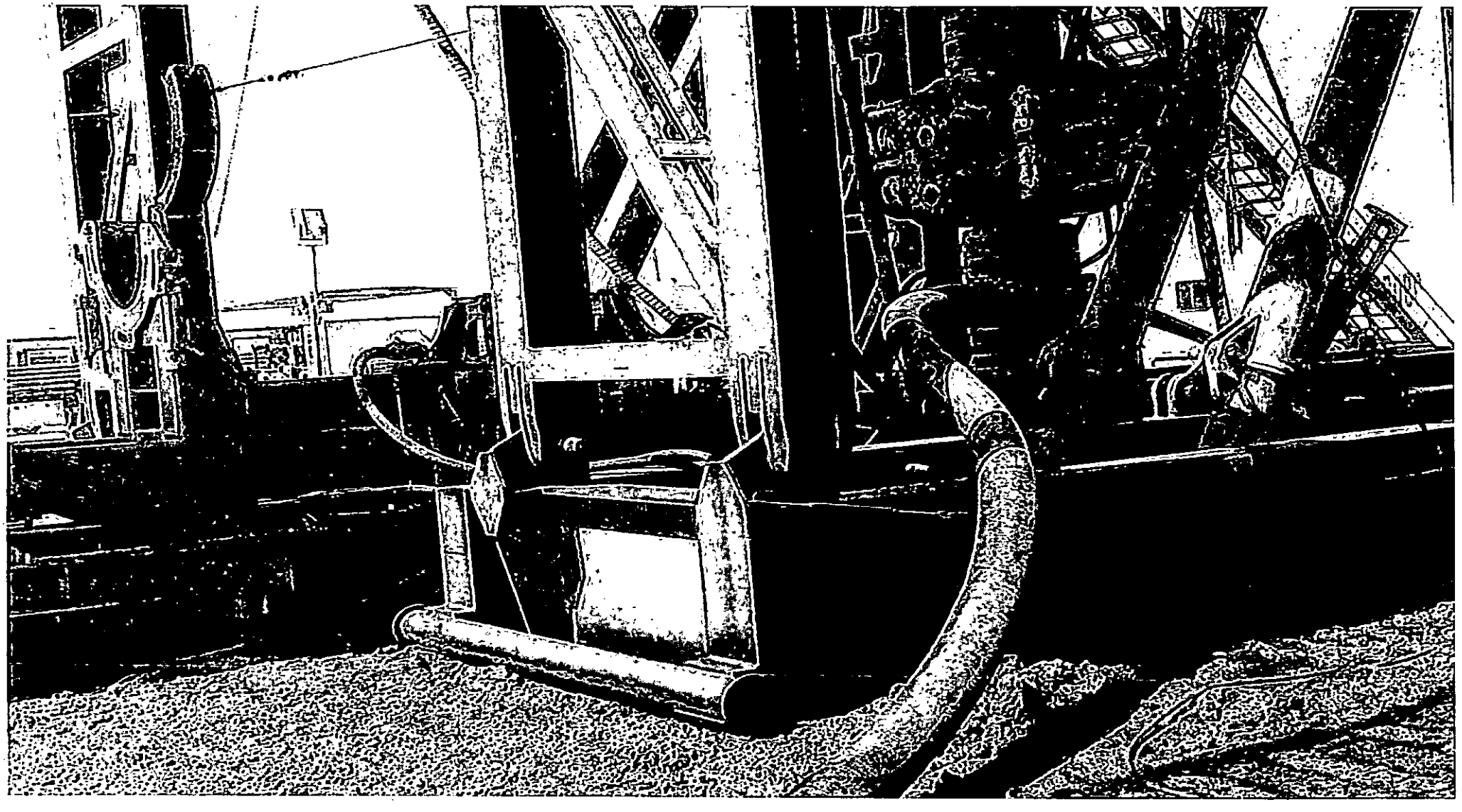
Exhibit F – Co-Flex Hose

Crescent Hale 10 Federal Com #4H

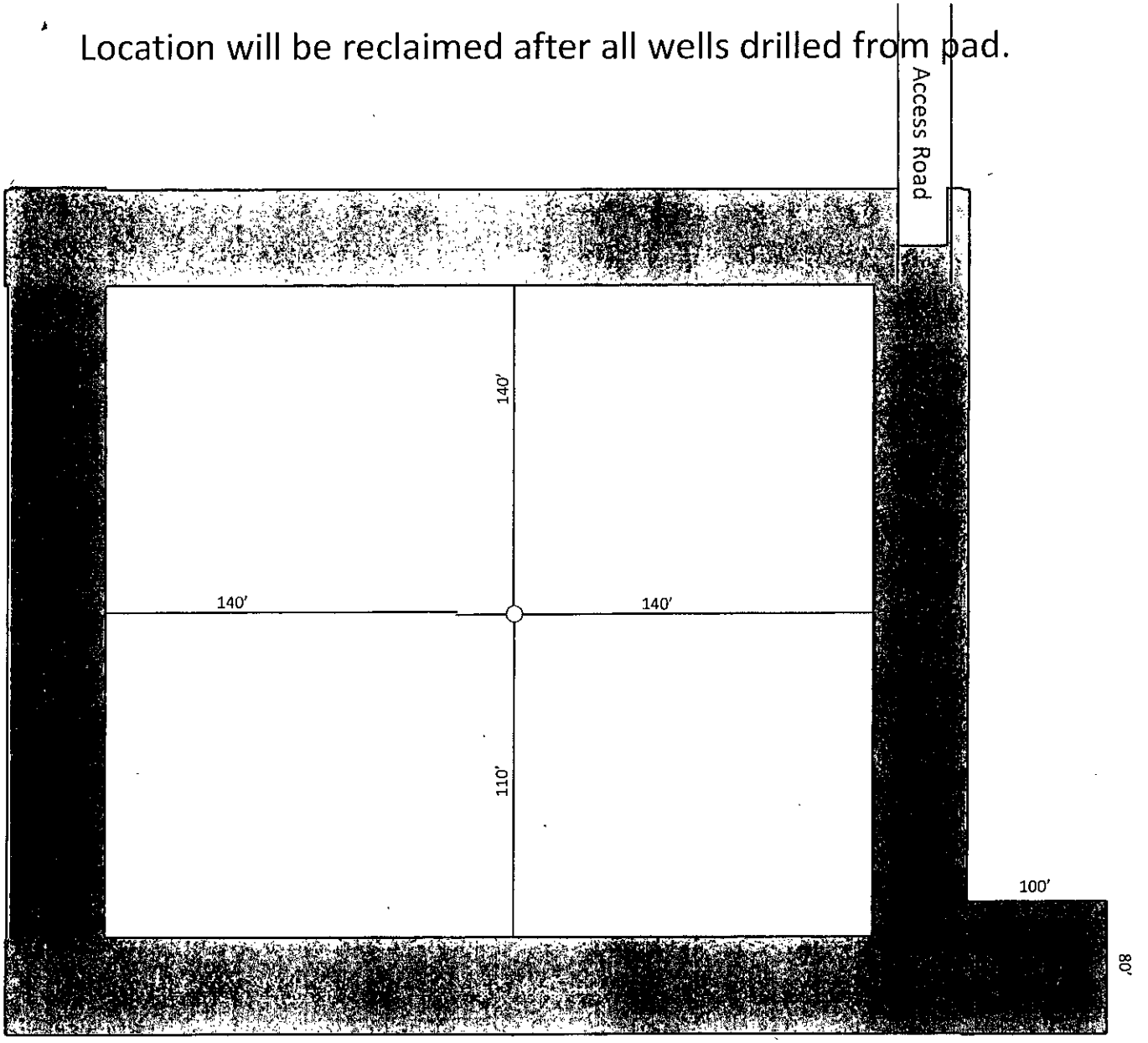
Cimarex Energy Co of Colorado

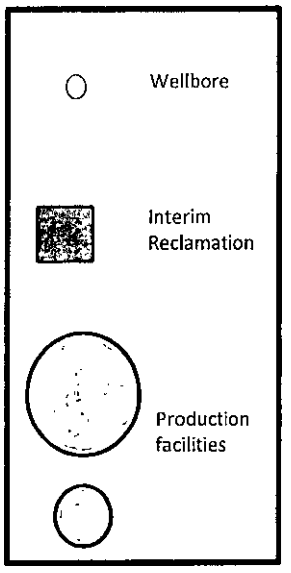
Sec 11, T19S, R30E

Eddy County, NM



Location will be reclaimed after all wells drilled from pad.





N

Exhibit D-1
Interim Reclamation Diagram
Crescent Hale 10 Federal Com #4H
Cimarex Energy Co of Colorado
Sec 11, T19S, R30E
Eddy County, NM

Summary of Drilling Operations
Crescent Hale 10 Federal Com #4H
Cimarex Energy Co.
UL: O, Sec. 11, 19S, 30E
Eddy Co., NM

Wellpad Size: 380'x 320'
Single Well Wellpad
Proposed New Road: 1391.04'
Proposed New Electric Line: 926.36'
Proposed New Flowline: 1776.32'
Production will be sent to a battery at Crescent Hale 10 Fed #3 Battery well location.

Crescent Hale 10 Federal Com #4H
Cimarex Energy Co.
UL: O, Sec. 11, 19S, 30E
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 Duvall Shaft Road and Grubbs Road location in Section 33, T18s, R30E NMPM, proceed in a northeasterly, then southerly direction approximately 1.0 miles to the junction of this road and an existing road to the south; turn right and proceed in a southerly, then southeasterly direction approximately 2.5 miles to the junction of this road and an existing road to the south; turn right and proceed in a southerly direction approximately 0.4 miles to the crescent hale 10 federal 3H and the beginning of the proposed access road to the east; Follow road flags in an Easterly, then southeasterly direction approximately 1776' to the proposed location. Total distance from the intersection of Duvall Shaft Road and Grubbs Roads (located in Section 33 T18s R30E NMPM to the proposed well location is approximately 4.2 miles.

2. New of Reconstructed Access Roads:

- A new road and a low water crossing will be constructed for this project.
- Cimarex Energy plans to construct 1391.04' of new on-lease access road to service the well. A low water crossing will be constructed just north of the pad, please see Exhibit D. The planned access road does not cross lease boundaries, a right of way grant will not be acquired from the BLM. The low water crossing will be reviewed by the USACE to determine if further permitting is required.
- 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.

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 Crescent Hale 10 Fed #3 Battery.
- 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' South of the access road.
- Length of Gas Lift Line: 1776.32'
- Length of Flowlines: 1776.32'
- MAOP: 1500 psi.
- Anticipated working pressure: 200-300 psi.

7. Salt Water Disposal

- No pipeline proposed.

8. Electric Lines

- Cimarex Energy plans to construct a new on lease electric line to service the well.
- Cimarex Energy plans to install and overhead electric line from the proposed well to an existing overhead electric line located in SW of section Section 11. The proposed electric line will be 926.36' in length, 1-40 poles, 480 volt, 4 wire, 3 phase. The electric line will exit off the NW side of the well location and travel SE 926.36' 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 H. 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.
- Cimarex will construct two diversion ditches and two berms for the project. The ditches and berms will be constructed along the east side of pad to divert run-off and smaller drainages into larger drainage just north and south of the east side of the pad. Rip rap will be installed as required for the project. Please see Exhibit B for diagram of ditches, berms, rip rap and drainage.

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

Crescent Hale 10 Federal Com #4H
Cimarex Energy Co.
UL: O, Sec. 11, 19S, 30E
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. The area will be reclaimed and seeded within 6 months of well completion.
- 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. The location will be reclaimed and seeded within 6 months of well abandonment.
- Should the well be a producer, those areas of the location not essential to production facilities and operations will be reclaimed and seeded within 6 months of well completion. 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 1/26/2016 with Barry Hunt and Jeff Robertson, Bob Ballard & Deanna Younger. V-Door Southwest. Frac pad southeast corner (Northeast). Top soil southwest. Interim reclamation: All sides. Construct a ditch and berm along the northeast side of pad to divert run-off and smaller drainages into larger drainage just south of the southeast corner. Access road at northeast corner running northwest to access road west of Matador's well. Staked an E-line that will follow proposed road and then existing road (north side) to Excel line (at same tie-in point as the Crescent Hale 10 Fed Com 3H). Staked a surface flowline that will follow proposed access road and existing road (south side on pipeline ROW) to the battery at the Crescent Hale 10 Fed Com 3H.

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Cimaex Energy Co of Colorado
LEASE NO.:	NM0560353
WELL NAME & NO.:	4H-Crescent Hale 10 Federal Com
SURFACE HOLE FOOTAGE:	1257'/S & 1974'/E
BOTTOM HOLE FOOTAGE	530'/S & 330'/W, sec.10
LOCATION:	Section 11, T. 19 S., R. 30 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.

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)

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 power line structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. The holder without liability or expense shall make such modifications and/or additions to the United States.

Entire perimeter of well pad will be surrounded with straw wattles just outside of the disturbed area in order to prevent construction sediment runoff into surrounding karst drainages.

Cave and Karst Conditions of Approval

** 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, situating values 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 values, 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.

Powerlines:
Smaller powerlines will be routed around sinkholes and other karst features to avoid or lessen the possibility of encountering near surface voids and to minimize changes to runoff or possible leaks and spills from entering karst systems. Larger powerlines will adjust their pole spacing to avoid cave and karst features. The BLM, Carlsbad Field Office, will be informed immediately if any subsurface drainage channels, cave passages, or voids are penetrated during construction and no further construction will be done until clearance has been issued by the Authorized Officer. Special restoration stipulations or realignment may be required.

Watershed:

- The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. There will be diversion ditches constructed. The berm and diversion ditches shall be maintained through the life of the well and after interim reclamation has been completed.
- Any water erosion that may occur due to the construction of the well pad during the life of the well will be corrected within two weeks and proper measures will be taken to prevent future erosion.

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

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.

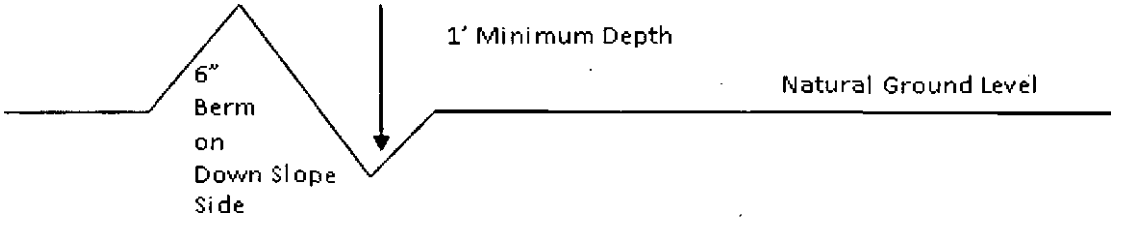
Turnouts
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, 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 foot road with 4% road slope: $\frac{400'}{4\%} + 100' = 200'$ 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

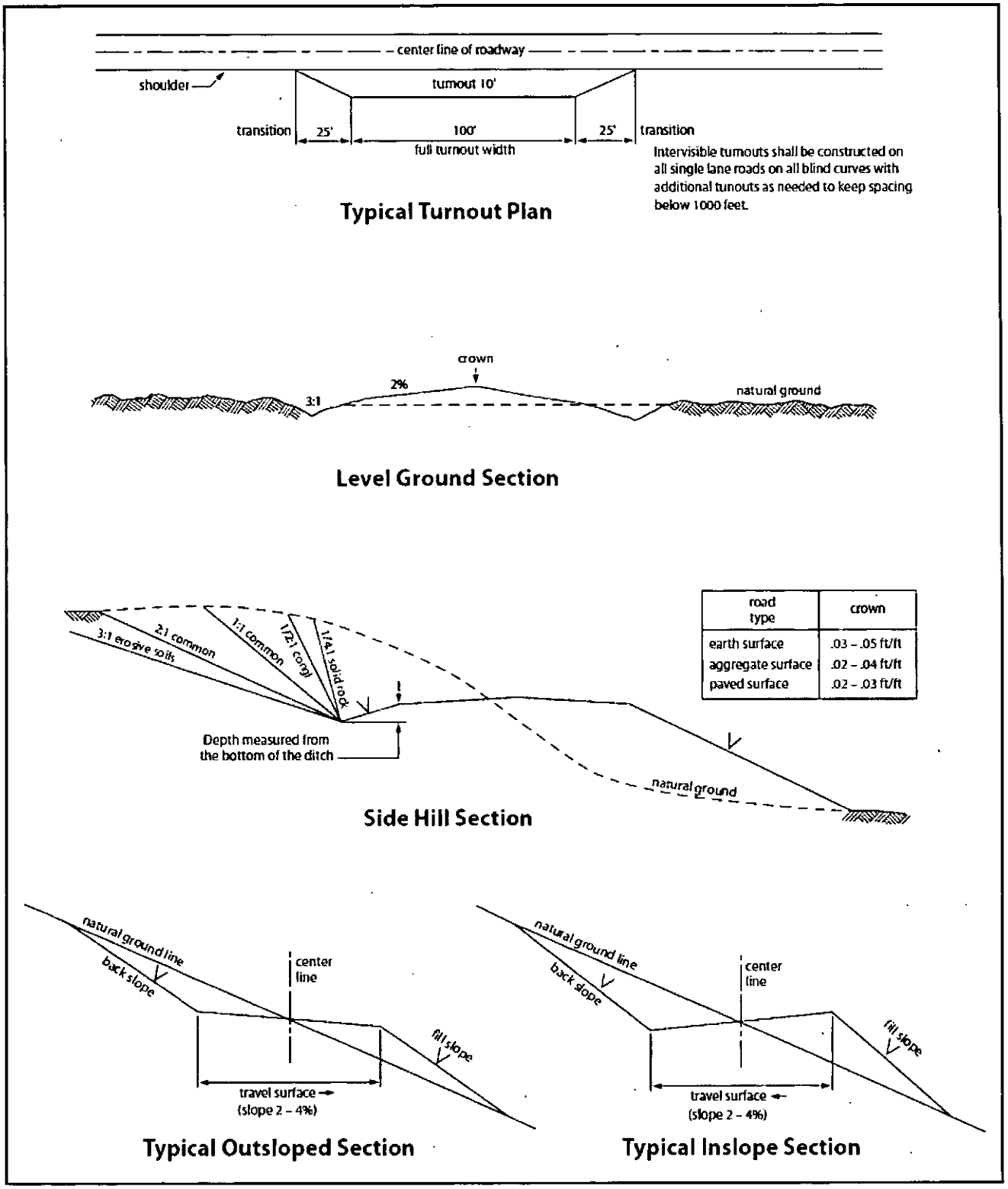


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

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 or are Non-API. 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.). The initial wellhead installed on the well will remain on the well with spools used as needed.

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

Wait on cement (WOC) for Potash Areas:
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 for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log.

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

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

R-111-Potash
Capitan Reef
Possibility of water flows in the Salado, and Artesia Group
Possibility of lost circulation in the Rustler, Capitan Reef, Delaware, and Artesia Group

1. The **20** inch surface casing shall be set at approximately 4000 feet and cemented to the surface. **If salt is encountered, set casing at least 25 feet above the salt. Excess calculates to negative 2%. Additional cement will 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.

Intermediate casing shall be kept fluid filled while running into hole to meet BLM minimum collapse requirements.

2. The minimum required fill of cement behind the **13-3/8** inch 1st 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 potash and cave/karst.**

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

Operator has proposed DV tool at depth of 2200', but will adjust cement proportionately if moved. DV tool shall be set a minimum of 50' below previous shoe and a minimum of 200' above current shoe. Operator shall submit sundry if DV tool depth cannot be set in this range. If an ECP is used, it is to be set a minimum of 50' below the shoe to provide cement across the shoe. If it cannot be set below the shoe, a CBL shall be run to verify cement coverage.

   a. First stage to DV tool:
   ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.
   b. Second stage above DV tool:
   ☒ 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 and potash. Excess calculates to 11% - Additional cement may be required**

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:
   ☒ Cement should tie-back at least **50 feet above the Capitan Reef** (Top of Capitan Reef estimated at 3790'). Operator shall provide method of verification. **Excess calculates to 11% - 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.

6. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

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. **In the case where the only BOP installed is an annular preventer, it shall be tested to a minimum of 2000 psi (which may require upgrading to 3M or 5M annular).**
4. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **13-3/8** 1st intermediate casing shoe shall be **2000 (2M)** psi.

5. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8** 2nd intermediate casing shoe shall be **3000 (3M)** psi.

6. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
    a. In potash areas, 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. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time.
    b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**.
    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.

D. DRILL STEM TEST

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

E. 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.

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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 Exclosure 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 exclosure 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 Exclosures

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 exclosure 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.

(X) seed mixture 1	( ) seed mixture 3
( ) seed mixture 2	( ) seed mixture 4
( ) seed mixture 2/LPC	( ) 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.

18. 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:

Species	lb/acre
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

NMOCD CONDITION OF APPROVAL

The *New!* Gas Capture Plan (GCP) notice is posted on the NMOCD website under Announcements. The Plan became effective May 1, 2016. A copy of the GCP form is included with the NOTICE and is also in our FORMS section under Unnumbered Forms. Please review filing dates for all applicable activities currently approved or pending and submit accordingly. Failure to file a GCP may jeopardize the operator's ability to obtain C-129 approval to flare gas after the initial 60-day completion period.