ATS-10-207

OCD-HOBBS

SECRETARY'S POTASH

Form 3160-3
(April 2004)

RECEIVED
APR 19 2011
HOBBSOCD

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
SHL NM-123524, BHL NM-124663

6. If Indian, Allotee or Tribe Name

1a. Type of Work: ☒ DRILL ☐ REENTER

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

1b. Type of Well: ☒ Oil Well ☐ Gas Well ☐ Other ☒ Single Zone ☐ Multiple Zone

8. Lease Name and Well No.
Lynch 23 Federal Com No. 1H (38591)

2. Name of Operator
Cimarex Energy Co. of Colorado (162683)

9. API Well No.
30-025- 40115

3a. Address
600 N. Marienfeld St., Ste. 600; Midland, TX 79701

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

10. Field and Pool, or Exploratory
Lea; Bone Spring, S (37580)

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

At Surface 330 FNL & 1830 FEL (B) At Bottom Hole 330 FSL & 1980 FEL

At proposed prod. Zone 330 FNL & 660 FEL *Horizontal Bone Spring test*

11. Sec., T. R. M. or Blk. and Survey or Area
23-20S-34E

14. Distance in miles and direction from nearest town or post office*

12. County or Parish
Lea

13. State
NM

15 Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
330'	NM-125173 - 160 acres NM-124663 - 80 acres	W2E2 160
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	**19. Proposed Depth**	**20. BLM/BIA Bond No. on File**
1170	Pilot Hole 11150' MD 15511' TVD 11050'	NM-2575
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	**22. Approximate date work will start***	**23. Estimated duration**
3655' GR	11.15.10	25-30 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, shall be attached to this form:

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 authorized officer.

25. Signature	Name *(Printed/Typed)*	Date
Zeno Farris	Zeno Farris	11.02.10

Title
Manager Operations Administration

Approved By *(Signature)*	Name (Printed/Typed)	Date
/s/ Linda S. C. Rundell	/s/ Linda S. C. Rundell	APR 12 2011
Title STATE DIRECTOR	**Office** NM STATE 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.S. 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.

* *(Instructions on page 2)*

CAPITAN CONTROLLED WATER BASIN

SEE ATTACHED FOR
CONDITIONS OF APPROVAL

KZ 04/20/11

APPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

APR 21 2011

RECEIVED

APR 19 2011

HOBBSOCD

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Form C-102
Revised July 16, 2010

Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-40115	37580	Lea Bone Spring; South

Property Code	Property Name	Well Number
38591	LYNCH "23" FEDERAL COM	1

OGRID No.	Operator Name	Elevation
162683	CIMAREX ENERGY CO. OF COLORADO	3655

Surface Location

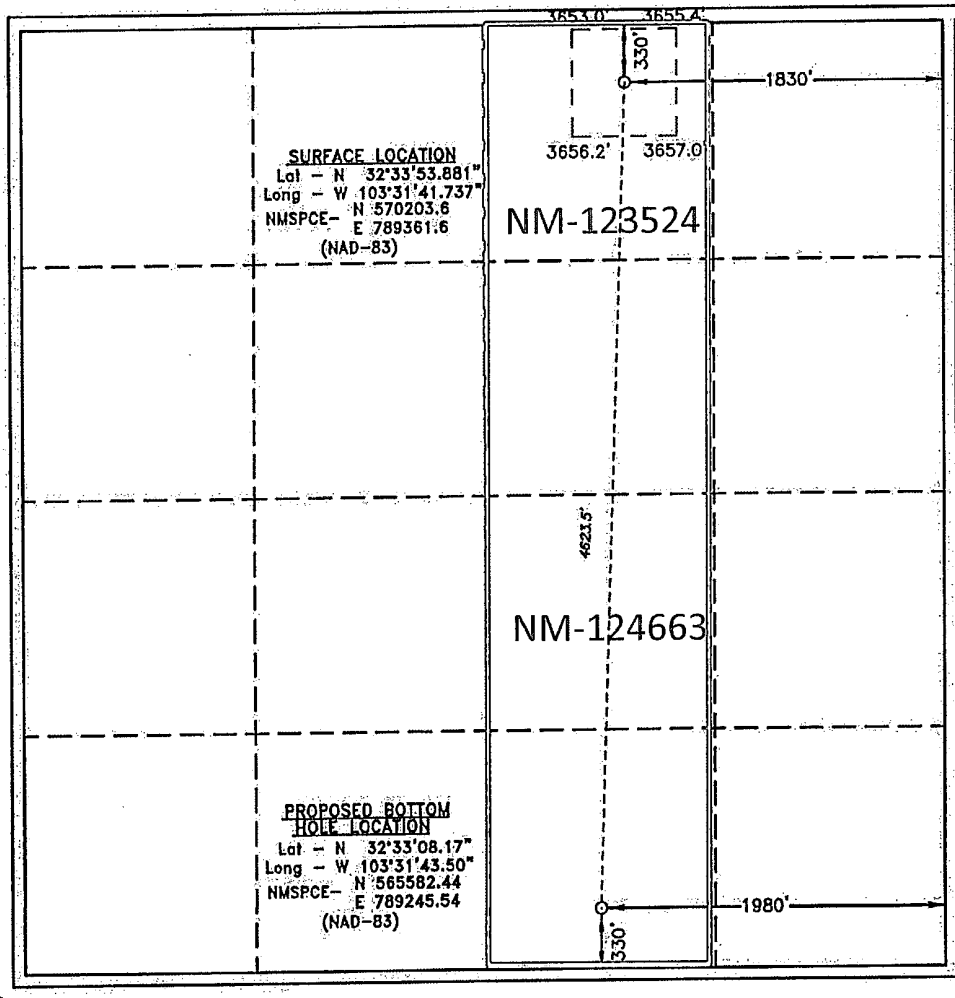
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	23	20 S	34 E		330	NORTH	1830	EAST	LEA

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
O	23	20 S	34 E		330	SOUTH	1980	EAST	LEA

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



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.

Zeno Farris 11-2-10

Signature Date

Zeno Farris

Printed Name

Zfarris@cimarex.com

Email Address

SURVEYOR CERTIFICATION

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

SEPTEMBER 14, 2010

Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES NEW MEXICO 7977 REGISTERED PROFESSIONAL LAND SURVEYOR

W.O. Number: 23363

Certificate No. Gary L. Jones 7977

BASIN SURVEYS 23363

Operator - Landowner Agreement

Company: Cimarex Energy Co. of Colorado

Proposed Well: Lynch 23 Federal Com No. 1

Federal Lease Number: SHL NM-123524, BHL NM-124663

This is to advise that Cimarex Energy Co. of Colorado has an agreement with: Kenneth Smith Inc. (267 Ranch Road Hobbs NM 88240, the surface owner, concerning entry and, surface restoration after completion of drilling operations at the above described well.

After abandonment of the well, all equipment and trash will be removed from the well site. No other requirements were made concerning restoration of the well site.

November 2, 2010
Date

Zeno Farris
Signature

Zeno Farris
Manager, Operations Administration

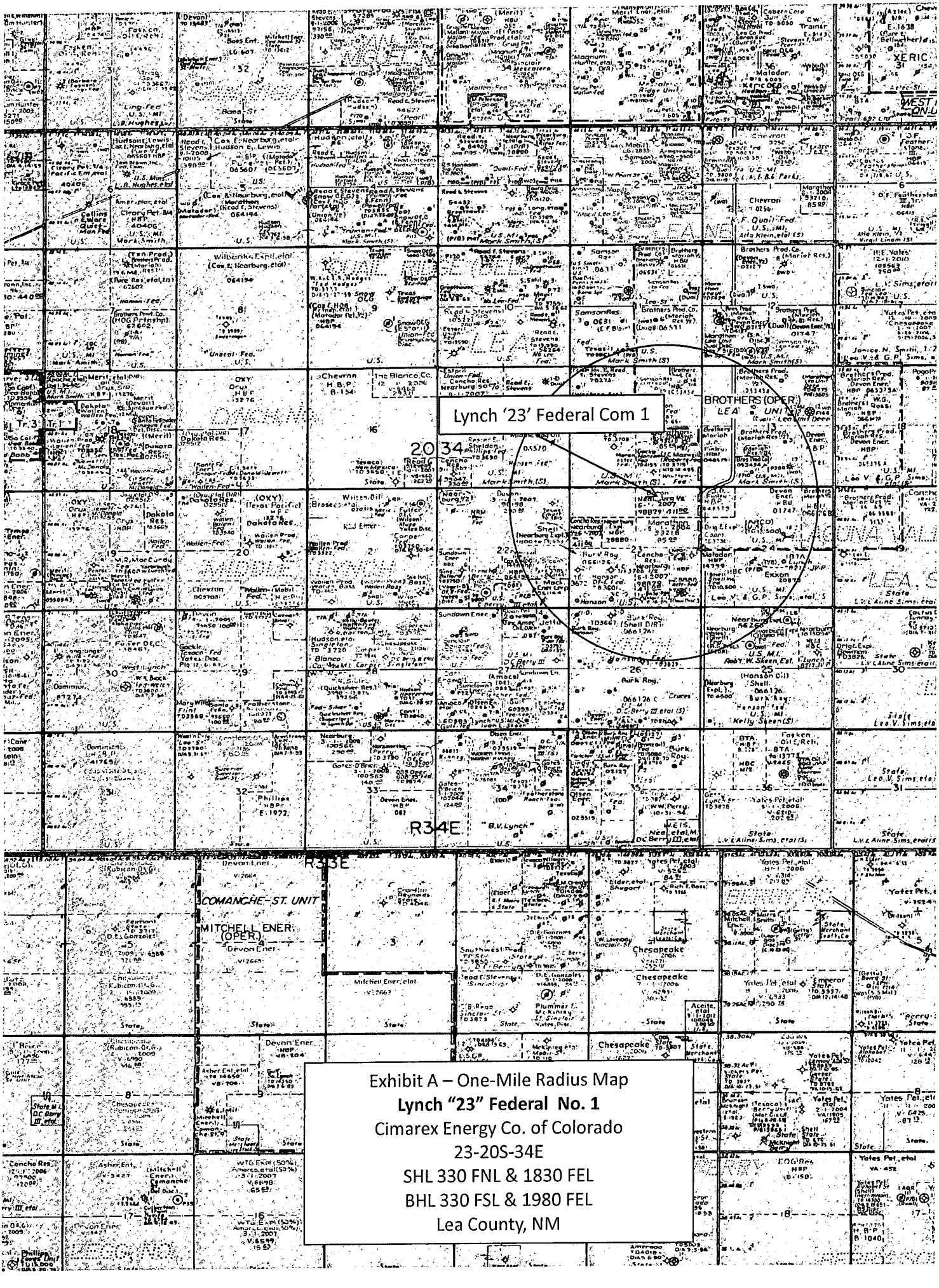


Exhibit A – One-Mile Radius Map

Lynch "23" Federal No. 1

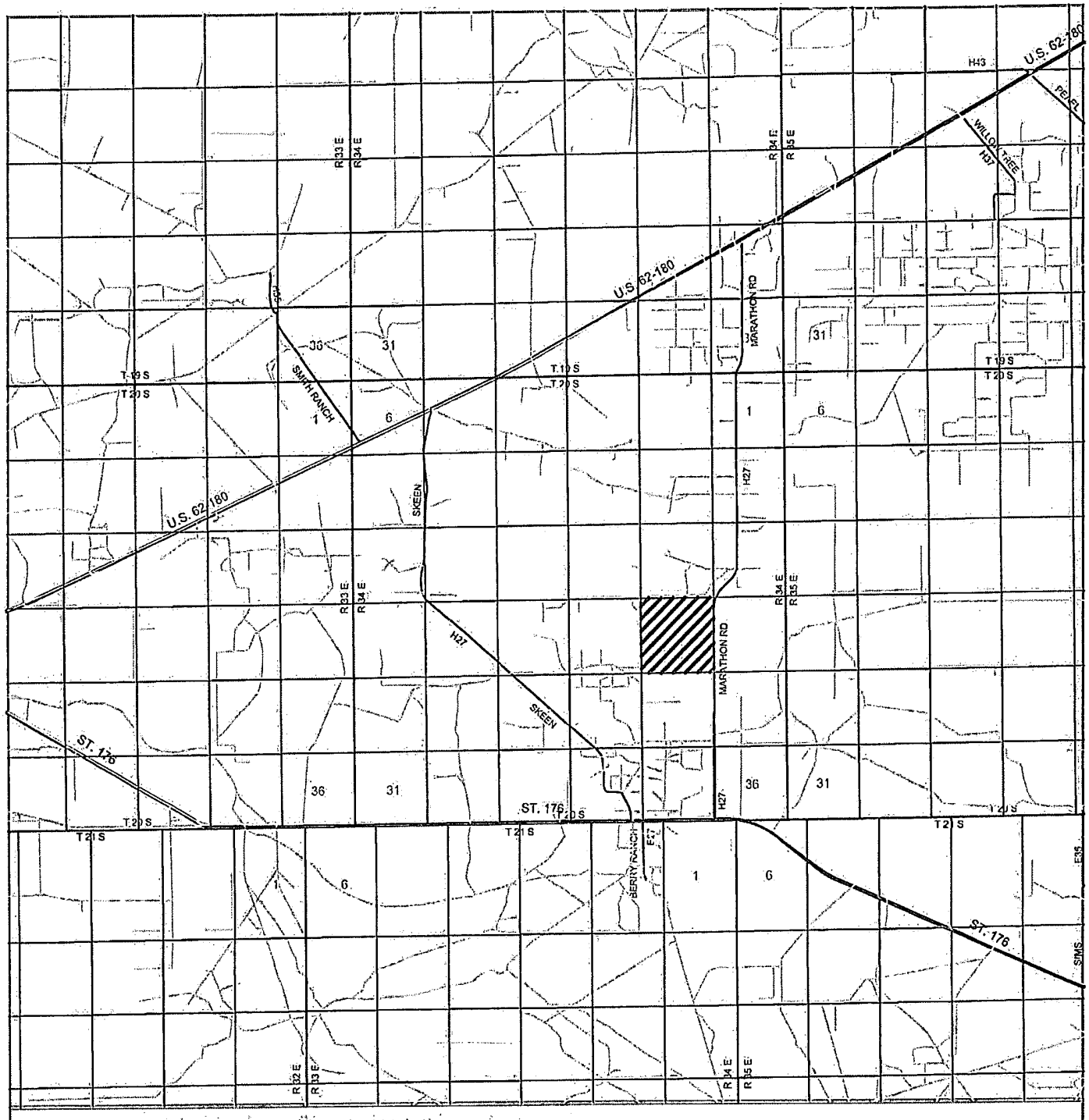
Cimarex Energy Co. of Colorado

23-20S-34E

SHL 330 FNL & 1830 FEL

BHL 330 FSL & 1980 FEL

Lea County, NM



LYNCH "23" FEDERAL COM #1
Located 330' FNL and 1830' FEL
Section 23, Township 20 South, Range 34 East,
N.M.P.M., Lea County, New Mexico.

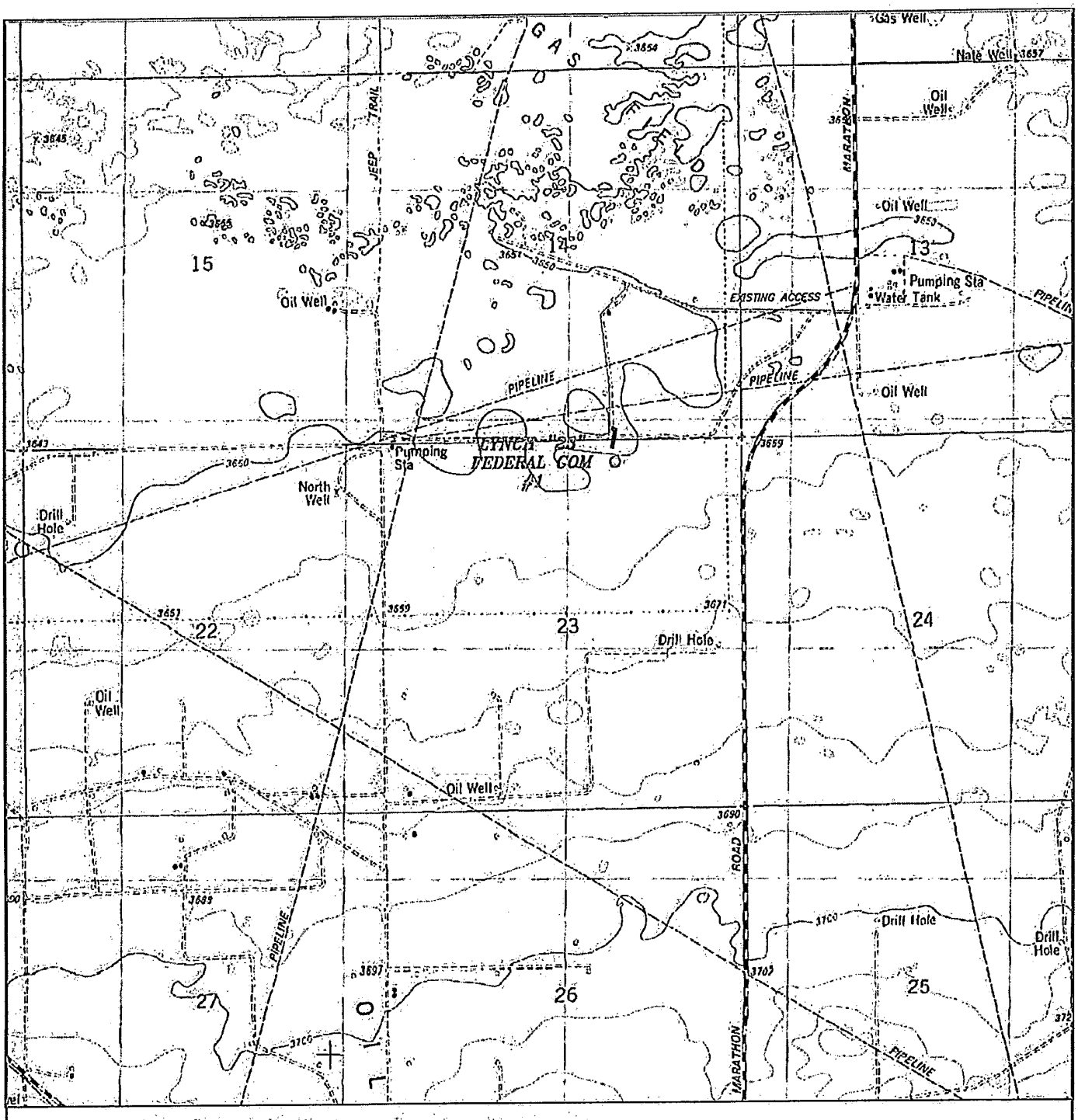
Basin Surveys
focused on excellence in the oilfield

P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

W.O. Number:	BJN 23363
Survey Date:	09-10-2010
Scale:	1" = 2 Miles
Date:	09-14-2010

CIMAREX ENERGY CO. OF COLORADO

Exhibit B



LYNCH "23" FEDERAL COM #1
Located 330' FNL and 1830' FEL
Section 23, Township 20 South, Range 34 East,
N.M.P.M., Lea County, New Mexico.

basin surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(575) 393-7316 - Office
(575) 392-2206 - Fax
basinsurveys.com

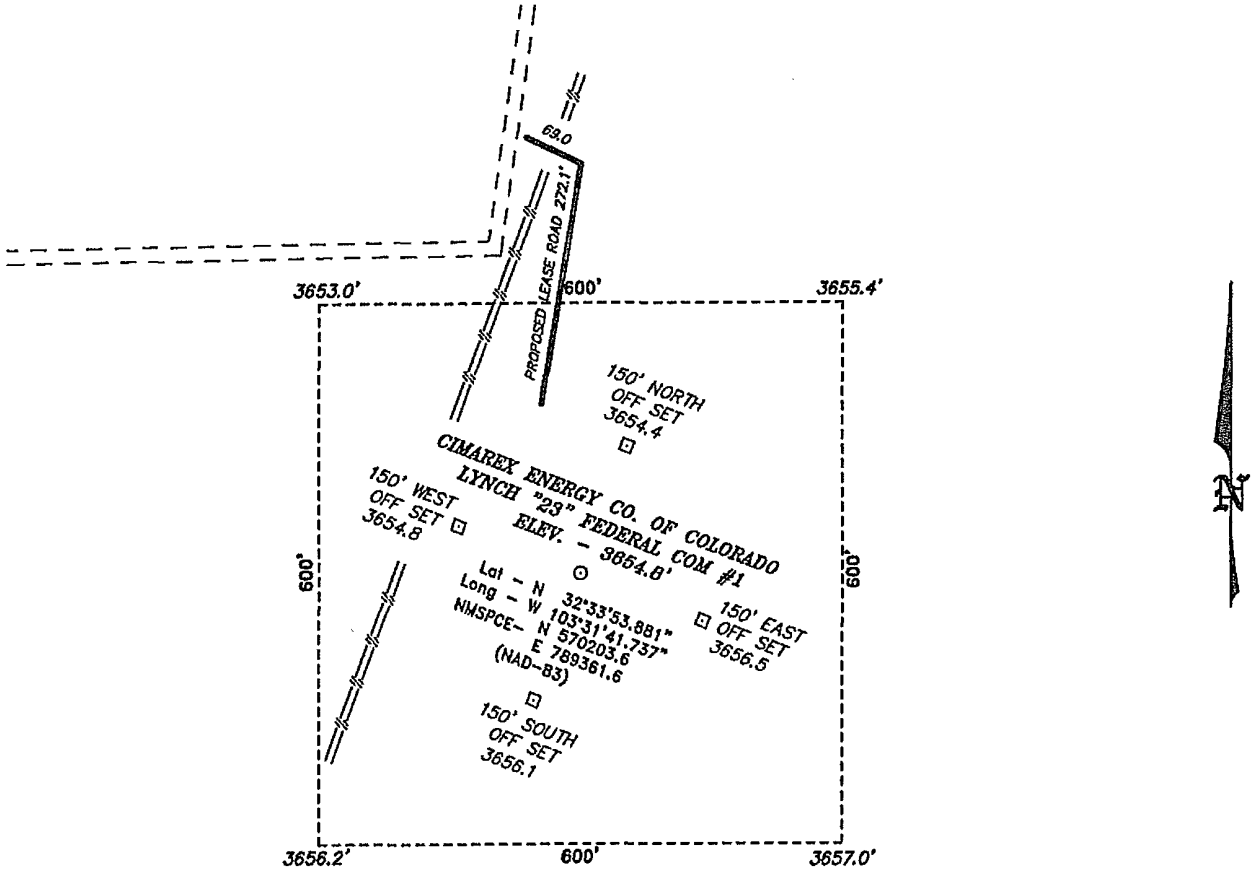
W.O. Number:	BJN 23363
Survey Date:	09-10-2010
Scale:	1" = 2000'
Date:	09-14-2010

CIMAREX ENERGY CO. OF COLORADO

Exhibit C

SECTION 23, TOWNSHIP 20 SOUTH, RANGE 34 EAST, N.M.P.M.,

LEA COUNTY, NEW MEXICO.



200 0 200 400 FEET

SCALE: 1" = 200'

Directions to Location:

FROM THE JUNCTION OF 62-180 AND MARATHON ROAD, GO SOUTH 4.5 MILES TO LEASE ROAD, ON LEASE ROAD WEST WINDING SOUTHERLY 1.1 MILES TO PROPOSED LEASE ROAD.

CIMAREX ENERGY CO. OF COLORADO

REF: LYNCH "23" FEDERAL COM #1 / WELL PAD TOPO

THE LYNCH "23" FEDERAL COM #1 LOCATED 330' FROM THE NORTH LINE AND 1830' FROM THE EAST LINE OF SECTION 23, TOWNSHIP 20 SOUTH, RANGE 34 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

BASIN SURVEYS P.O. BOX 1786 - HOBBS, NEW MEXICO

W.O. Number: 23363	Drawn By: B. NIXON		
Date: 09-14-2010	Disk: BJN 23363	Survey Date: 09-10-2010	Sheet 1 of 1 Sheets

Exhibit C-1

Application to Drill
Lynch 23 Federal Com No. 1
Cimarex Energy Co. of Colorado
Unit B, Section 23
T20S-R34E, Lea County, NM

In response to questions asked under Section II B of Bulletin NTL-6, the following information is provided for your consideration:

1 Location: SHL 330 FNL & 1830 FEL
BHL 330 FSL & 1980 FEL

2 Elevation above sea level: 3655' GR

3 Geologic name of surface formation: Quaternery Alluvium Deposits

4 Drilling tools and associated equipment: Conventional rotary drilling rig using fluid as a circulating medium for solids removal.

5 Proposed drilling depth: Pilot Hole 11150' MD 15511' TVD 11050'

6 Estimated tops of geological markers:

Rustler	1600'	Capitan	3650'
Top Salt	1960'	Delaware	5180'
Bottom Salt	3400'	Bone Spring	7850'
Yates	3500'	Wolfcamp	11100'

7 Possible mineral bearing formation:

Bone Spring	Oil
Delaware	Oil
Yates/7 Rivers	Oil

8 Proposed Mud Circulating System:

Depth	Mud Wt	Visc	Fluid Loss	Type Mud
0' to 1700'	8.4 - 8.6	28	NC	FW
1700' to 5500'	10.0	30-32	NC	Brine water
5500' to 11150'	9.0 - 9.5	30-32	NC	FW, brine
10771' to 15511'	8.4	28-29	NC	2% KCl

Sufficient mud materials will be kept on location at all times in order to combat lost circulation or unexpected kicks. In order to run DSTs, open hole logs, and casing, the viscosity and water loss may have to be adjusted in order to meet these needs.

Proposed drilling Plan

Drill 8¾" pilot hole to 11150' and log. Set 7" casing from 0-10750 and 2⅞" fiberglass tubing from 10750-11150. Cement 7" and fiberglass. Kick off 6⅛" lateral @ 10771' and drill to TD @ 15511.' Run 4½" casing from 10450-15511 and cement.

Pilot hole - into - Top of Wolfcamp

9 Casing & Cementing Program:

String	Hole Size	Depth			Casing OD		Weight	Collar	Grade
Surface	17½"	0	to	1700	New	13⅜"	54.5#	STC	J-55
Intermediate	12¼"	0	to	5500	New	9⅝"	40#	LTC	**N-80
Production	~~6⅛"~~ 8¾"	0	to	10750	New	7"	26#	LTC	P-110
Fiberglass	8¾"	10750	to	11150	New	2⅞"	2.18#		IJ
Liner	6⅛"	10450	to	15511	New	4½"	11.6#	*LTC/BTC*	P-110

***Use **BTC** from 10450-11089 (EOC) and **LTC** from 11089-15511

10 Cementing:

Surface Lead: 1030sk Class C + 4% D20, 1% S001, 0.2% D46, 0.125 lb/sk D130, 12.9 ppg, 1.96 yeild, 10.84 gal/s
Tail: 290 sk Class C + 0.125 lb/sk D130, 14.8 ppg 1.33 yld, 6.35 gal/sk

100% Excess **TOC Surface Centralizers per Onshore Order 2.III.B.1.f**

Intermediate Lead: 1560 SKS EconoCem + 5% salt + 5 lbm gilsonite 14.6ppg 1.54yield
Tail: 215 SKS HalCem + 1% CaCl 14.8ppg 1.34 yield

70% Excess **TOC Surface**

Production & Fiberglass Lead: 360 SKS EconoCem - H + 0.2 % HR-601 2.44 11.9ppg 2.44 yield
Tail: 343 SKS Versacem - H + 0.5% Halad(R)-344 + 0.4% CFR-3 + 1 lbm/sk salt + 0.1% HR-601 14.5ppg 1.22 yield

25% Excess ~~TOC 5300~~ 5000' See COA

Lateral 471 SKS Versacem - H + 0.5% Halad(R)-344 + 0.4% CFR-3 + 1 lbm/sk salt + 0.1% HR-601 14.5ppg 1.22 yield

25% Excess **Centralizers every 3rd joint in lateral to provide adequate cement every 100' unless lateral doglegs require greater spacing between centralizers.**

According to the State engineer, depth to ground water is 115.' Fresh water zones will be protected by setting 13⅜" casing at 1700' and cementing to surface. Hydrocarbon zones will be protected by setting 9⅝" casing at 5500' and cementing to surface, and by setting 7" casing at 10750' and 2⅞" FG @ 11150 and cementing to ~~5300.~~ 5000' *See COA

Collapse Factor	*Burst Factor*	*Tension Factor*
1.125	1.125	1.6

**Intermediate casing will be kept liquid filled while running in hole to meet BLM minimum collapse safety factor.

*See COA

11 Pressure control Equipment:

Exhibit "E". A 13⅝" 5000 PSI working pressure BOP system consisting of one set of blind rams and one set of pipe rams and a 5000# annular type preventer. A choke manifold and 120 gallon accumulator with floor and remote operating stations and auxiliary power system. Rotating head as needed. A kelly cock will be installed and maintained in operable condition and a drill string safety valve in the open position will be available on the rig floor. Mud Gas Seperator will be available if drilling in H2S areas.

BOP unit will be hydraulically operated. BOP will be nippled up and operated at least once a day while drilling and the blind rams will be operated when out of hole during trips. No abnormal pressure or temperature is expected while drilling. From the base of the 13⅜" casing through the running of production casing, the well will be equipped with a 5000 psi BOP system.

BOPS will be tested by an independent service company to 250 psi low and 5000 psi high. Hydril will be tested to 250 psi low and 2500 psi high.

* see COA

12 Testing, Logging and Coring Program:

A. Mud logging program: 2 man unit from 5480' to TD
B. Electric logging program: CNL / LDT / CAL / GR, DLL / CAL / GR
C. No DSTs or cores are planned at this time.

13 Potential Hazards:

No abnormal pressures or temperatures are expected. In accordance with Onshore Order 6, Cimarex does not anticipate that there will be enough H_2S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H_2S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H_2S Safety package on all wells, attached is an "H_2S Drilling Operations Plan." Adequate flare lines will be installed off the mud / gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used.

Estimated BHP **3000 psi** Estimated BHT **130°**

14 Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved.
Drilling expected to take 30-35 days
If production casing is run an additional 30 days will be required to complete and construct surface facilities.

15 Other Facets of Operations:

After running casing, cased hole gamma ray neutron collar logs will be run from total depth over possible pay intervals.
Bone Spring pay will be perforated and stimulated.
The proposed well will be tested and potentialed as **an oil well.**

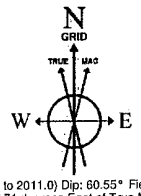
Cimarex Energy Co.

Location: Lea County, NM
Field: (Lynch) Sec 23, T20S, R34E
Facility: Lynch 23 Fed Com No. 1H

Slot: No. 1H SHL
Well: No. 1H
Wellbore: No. 1H PWB

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	0.00	0.000	181.439	0.00	0.00	0.00	0.00	0.00
EST. KOP	10771.00	0.000	181.439	10771.00	0.00	0.00	0.00	0.00
END OF CURVE	11088.99	89.036	181.439	10975.60	-201.12	-5.05	28.00	201.18
No. 1H PBHL	15511.15	89.036	181.439	11050.00	-4621.26	-116.06	0.00	4622.72



BGGM (1945.0 to 2011.0) Dip: 60.55° Field: 48970.8 nT
Magnetic North is 7.71 degrees East of True North (at 9/21/2010)
Grid North is 0.43 degrees East of True North
To correct azimuth from True to Grid subtract 0.43 degrees
To correct azimuth from Magnetic to Grid add 7.28 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.28 = 97.28

Plot reference wellpath is Prelim_1	
True vertical depths are referenced to Rig on No. 1H SHL (GL)	Grid System: NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No. 1H SHL (GL)	North Reference: Grid north
Rig on No. 1H SHL (GL) to Mean Sea Level: 3655 feet	Scale: True distance
Mean Sea Level to Mud line (Facility: Lynch 23 Fed Com No. 1H): -3655 feet	Depths are in feet
Coordinates are in feet referenced to Facility Center	Created by: Victor Hernandez on 9/23/2010

Planned Wellpath Report

Prelim_1

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Cimarex Energy Co.**	Slot	**No. 1H SHL**
Area	**Lea County, NM**	Well	**No. 1H**
Field	**(Lynch) Sec 23, T20S, R34E**	Wellbore	**No. 1H PWB**
Facility	**Lynch 23 Fed Com No. 1H**		

REPORT SETUP INFORMATION			
Projection System	**NAD83 / TM New Mexico State Planes, Eastern Zone (3001), US feet**	Software System	**WellArchitect® 2.0**
North Reference	**Grid**	User	**Victor Hernandez**
Scale	**0.99998**	Report Generated	**9/23/2010 at 11:18:42 AM**
Convergence at slot	**0.43° East**	Database/Source file	**WA_Midland/No._1H_PWB.xml**

WELLPATH LOCATION	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	**East[ft]**	**Easting[USft]**	**Northing[USft]**	**Latitude**	**Longitude**
Slot Location	**0.00**	**0.00**	789361.60	570203.60	32°33'53.881"N	103°31'41.737"W
Facility Reference Pt			**789361.60**	**570203.60**	32°33'53.881"N	103°31'41.737"W
Field Reference Pt			**789361.60**	**570203.60**	32°33'53.881"N	103°31'41.737"W

WELLPATH DATUM			
Calculation method	**Minimum curvature**	Rig on No. 1H SHL (GL) to Facility Vertical Datum	**0.00ft**
Horizontal Reference Pt	**Facility Center**	Rig on No. 1H SHL (GL) to Mean Sea Level	**3655.00ft**
Vertical Reference Pt	**Rig on No. 1H SHL (GL)**	Facility Vertical Datum to Mud Line (Facility)	**0.00ft**
MD Reference Pt	**Rig on No. 1H SHL (GL)**	Section Origin	**N 0.00, E 0.00 ft**
Field Vertical Reference	**Mean Sea Level**	Section Azimuth	**181.44°**

Planned Wellpath Report

Prelim_1

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Cimarex Energy Co.**	Slot	**No. 1H SHL**
Area	**Lea County, NM**	Well	**No. 1H**
Field	**(Lynch) Sec 23, T20S, R34E**	Wellbore	**No. 1H PWB**
Facility	**Lynch 23 Fed Com No. 1H**		

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

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	181.439	0.00	0.00	0.00	0.00	789361.60	570203.60	32°33'53.881"N	103°31'41.737"W	0.00	Tie On
10771.00	0.000	181.439	10771.00	0.00	0.00	0.00	789361.60	570203.60	32°33'53.881"N	103°31'41.737"W	0.00	EST. KOP
10871.00†	28.000	181.439	10867.07	23.95	-23.94	-0.60	789361.00	570179.66	32°33'53.644"N	103°31'41.746"W	28.00	
10971.00†	56.000	181.439	10940.64	90.20	-90.17	-2.26	789359.34	570113.43	32°33'52.989"N	103°31'41.771"W	28.00	
11071.00†	84.000	181.439	10974.51	183.24	-183.18	-4.60	789357.00	570020.42	32°33'52.069"N	103°31'41.807"W	28.00	
11088.99	89.036	181.439	10975.60	201.18	-201.12	-5.05	789356.55	570002.48	32°33'51.891"N	103°31'41.814"W	28.00	END OF CURVE
11171.00†	89.036	181.439	10976.98	283.19	-283.10	-7.11	789354.49	569920.51	32°33'51.080"N	103°31'41.845"W	0.00	
11271.00†	89.036	181.439	10978.66	383.17	-383.05	-9.62	789351.98	569820.56	32°33'50.092"N	103°31'41.883"W	0.00	
11371.00†	89.036	181.439	10980.34	483.16	-483.01	-12.13	789349.47	569720.60	32°33'49.103"N	103°31'41.921"W	0.00	
11471.00†	89.036	181.439	10982.03	583.15	-582.96	-14.64	789346.96	569620.65	32°33'48.114"N	103°31'41.960"W	0.00	
11571.00†	89.036	181.439	10983.71	683.13	-682.92	-17.15	789344.45	569520.70	32°33'47.125"N	103°31'41.998"W	0.00	
11671.00†	89.036	181.439	10985.39	783.12	-782.87	-19.66	789341.94	569420.75	32°33'46.136"N	103°31'42.036"W	0.00	
11771.00†	89.036	181.439	10987.07	883.10	-882.82	-22.17	789339.43	569320.80	32°33'45.148"N	103°31'42.074"W	0.00	
11871.00†	89.036	181.439	10988.76	983.09	-982.78	-24.68	789336.92	569220.84	32°33'44.159"N	103°31'42.112"W	0.00	
11971.00†	89.036	181.439	10990.44	1083.07	-1082.73	-27.19	789334.41	569120.89	32°33'43.170"N	103°31'42.150"W	0.00	
12071.00†	89.036	181.439	10992.12	1183.06	-1182.69	-29.70	789331.90	569020.94	32°33'42.181"N	103°31'42.189"W	0.00	
12171.00†	89.036	181.439	10993.80	1283.05	-1282.64	-32.21	789329.39	568920.99	32°33'41.192"N	103°31'42.227"W	0.00	
12271.00†	89.036	181.439	10995.49	1383.03	-1382.60	-34.72	789326.88	568821.03	32°33'40.204"N	103°31'42.265"W	0.00	
12371.00†	89.036	181.439	10997.17	1483.02	-1482.55	-37.23	789324.37	568721.08	32°33'39.215"N	103°31'42.303"W	0.00	
12471.00†	89.036	181.439	10998.85	1583.00	-1582.50	-39.74	789321.86	568621.13	32°33'38.226"N	103°31'42.341"W	0.00	
12571.00†	89.036	181.439	11000.53	1682.99	-1682.46	-42.25	789319.35	568521.18	32°33'37.237"N	103°31'42.379"W	0.00	
12671.00†	89.036	181.439	11002.22	1782.98	-1782.41	-44.77	789316.84	568421.23	32°33'36.248"N	103°31'42.418"W	0.00	
12771.00†	89.036	181.439	11003.90	1882.96	-1882.37	-47.28	789314.33	568321.27	32°33'35.260"N	103°31'42.456"W	0.00	
12871.00†	89.036	181.439	11005.58	1982.95	-1982.32	-49.79	789311.82	568221.32	32°33'34.271"N	103°31'42.494"W	0.00	
12971.00†	89.036	181.439	11007.26	2082.93	-2082.28	-52.30	789309.30	568121.37	32°33'33.282"N	103°31'42.532"W	0.00	
13071.00†	89.036	181.439	11008.95	2182.92	-2182.23	-54.81	789306.79	568021.42	32°33'32.293"N	103°31'42.570"W	0.00	
13171.00†	89.036	181.439	11010.63	2282.90	-2282.19	-57.32	789304.28	567921.47	32°33'31.304"N	103°31'42.608"W	0.00	
13271.00†	89.036	181.439	11012.31	2382.89	-2382.14	-59.83	789301.77	567821.51	32°33'30.316"N	103°31'42.647"W	0.00	
13371.00†	89.036	181.439	11013.99	2482.88	-2482.09	-62.34	789299.26	567721.56	32°33'29.327"N	103°31'42.685"W	0.00	
13471.00†	89.036	181.439	11015.68	2582.86	-2582.05	-64.85	789296.75	567621.61	32°33'28.338"N	103°31'42.723"W	0.00	

Planned Wellpath Report

Prelim_1

REFERENCE WELLPATH IDENTIFICATION			
Operator	Cimarex Energy Co.	Slot	No. 1H SHL
Area	Lea County, NM	Well	No. 1H
Field	(Lynch) Sec 23, T20S, R34E	Wellbore	No. 1H PWB
Facility	Lynch 23 Fed Com No. 1H		

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

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	DLS [°/100ft]	Comments
13571.00†	89.036	181.439	11017.36	2682.85	-2682.00	-67.36	789294.24	567521.66	32°33'27.349"N	103°31'42.761"W	0.00	
13671.00†	89.036	181.439	11019.04	2782.83	-2781.96	-69.87	789291.73	567421.71	32°33'26.360"N	103°31'42.799"W	0.00	
13771.00†	89.036	181.439	11020.72	2882.82	-2881.91	-72.38	789289.22	567321.75	32°33'25.372"N	103°31'42.837"W	0.00	
13871.00†	89.036	181.439	11022.41	2982.81	-2981.87	-74.89	789286.71	567221.80	32°33'24.383"N	103°31'42.875"W	0.00	
13971.00†	89.036	181.439	11024.09	3082.79	-3081.82	-77.40	789284.20	567121.85	32°33'23.394"N	103°31'42.914"W	0.00	
14071.00†	89.036	181.439	11025.77	3182.78	-3181.77	-79.91	789281.69	567021.90	32°33'22.405"N	103°31'42.952"W	0.00	
14171.00†	89.036	181.439	11027.45	3282.76	-3281.73	-82.42	789279.18	566921.95	32°33'21.417"N	103°31'42.990"W	0.00	
14271.00†	89.036	181.439	11029.13	3382.75	-3381.68	-84.93	789276.67	566821.99	32°33'20.428"N	103°31'43.028"W	0.00	
14371.00†	89.036	181.439	11030.82	3482.73	-3481.64	-87.44	789274.16	566722.04	32°33'19.439"N	103°31'43.066"W	0.00	
14471.00†	89.036	181.439	11032.50	3582.72	-3581.59	-89.95	789271.65	566622.09	32°33'18.450"N	103°31'43.104"W	0.00	
14571.00†	89.036	181.439	11034.18	3682.71	-3681.55	-92.46	789269.14	566522.14	32°33'17.461"N	103°31'43.143"W	0.00	
14671.00†	89.036	181.439	11035.86	3782.69	-3781.50	-94.97	789266.63	566422.18	32°33'16.473"N	103°31'43.181"W	0.00	
14771.00†	89.036	181.439	11037.55	3882.68	-3881.45	-97.48	789264.12	566322.23	32°33'15.484"N	103°31'43.219"W	0.00	
14871.00†	89.036	181.439	11039.23	3982.66	-3981.41	-99.99	789261.61	566222.28	32°33'14.495"N	103°31'43.257"W	0.00	
14971.00†	89.036	181.439	11040.91	4082.65	-4081.36	-102.50	789259.10	566122.33	32°33'13.506"N	103°31'43.295"W	0.00	
15071.00†	89.036	181.439	11042.59	4182.64	-4181.32	-105.01	789256.59	566022.38	32°33'12.517"N	103°31'43.333"W	0.00	
15171.00†	89.036	181.439	11044.28	4282.62	-4281.27	-107.52	789254.08	565922.42	32°33'11.529"N	103°31'43.371"W	0.00	
15271.00†	89.036	181.439	11045.96	4382.61	-4381.23	-110.03	789251.57	565822.47	32°33'10.540"N	103°31'43.410"W	0.00	
15371.00†	89.036	181.439	11047.64	4482.59	-4481.18	-112.54	789249.06	565722.52	32°33'09.551"N	103°31'43.448"W	0.00	
15471.00†	89.036	181.439	11049.32	4582.58	-4581.13	-115.05	789246.55	565622.57	32°33'08.562"N	103°31'43.486"W	0.00	
15511.15	89.036	181.439	11050.00[1]	4622.72	-4621.26	-116.06	789245.54	565582.44	32°33'08.165"N	103°31'43.501"W	0.00	No. 1H PBHL

Planned Wellpath Report

Prelim_1

REFERENCE WELLPATH IDENTIFICATION			
Operator	**Cimarex Energy Co.**	Slot	**No. 1H SHL**
Area	**Lea County, NM**	Well	**No. 1H**
Field	**(Lynch) Sec 23, T20S, R34E**	Wellbore	**No. 1H PWB**
Facility	**Lynch 23 Fed Com No. 1H**		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [srv ft]	Grid North [srv ft]	Latitude	Longitude	Shape
1) No. 1H PBHL	15511.15	11050.00	-4621.26	-116.06	**789245.54**	**565582.44**	32°33'08.165"N	103°31'43.501"W	point

SURVEY PROGRAM Ref Wellbore: No. 1H PWB Ref Wellpath: Prelim_1

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	15511.15	NaviTrak (Standard)		No. 1H PWB

Key 881

Exhibit D – Rig Diagram
Lynch '23' Fed Com 1
Cimarex Energy Co. of Colorado
23-20S-34E
SHL 330 FNL & 1830 FEL
BHL 330 FSL & 1980 FEL
Lea County, NM

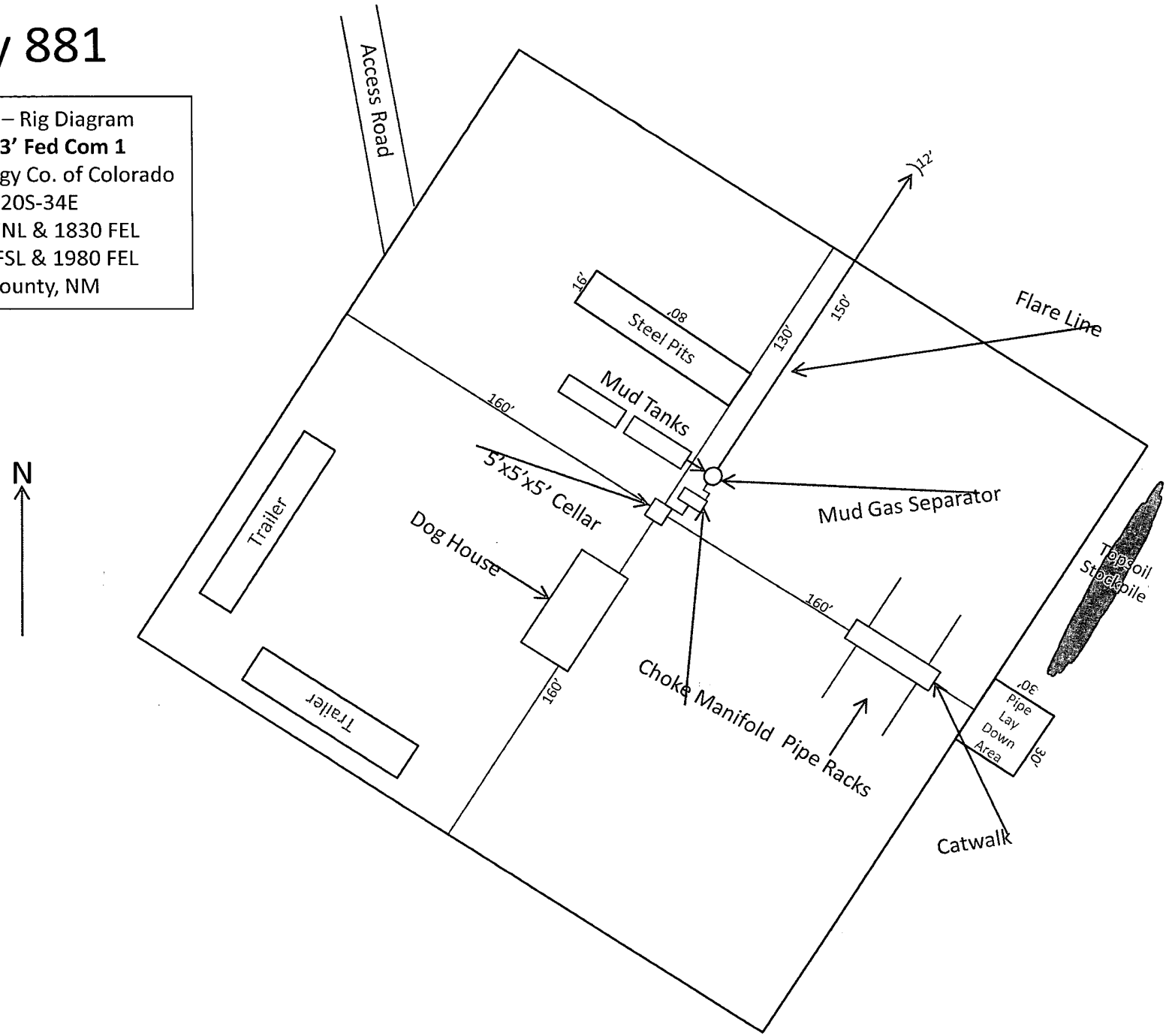
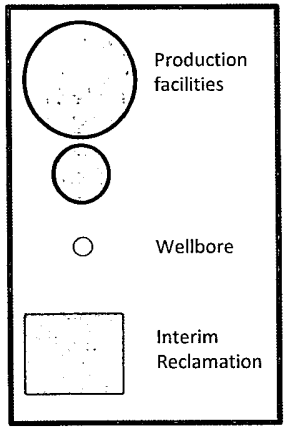
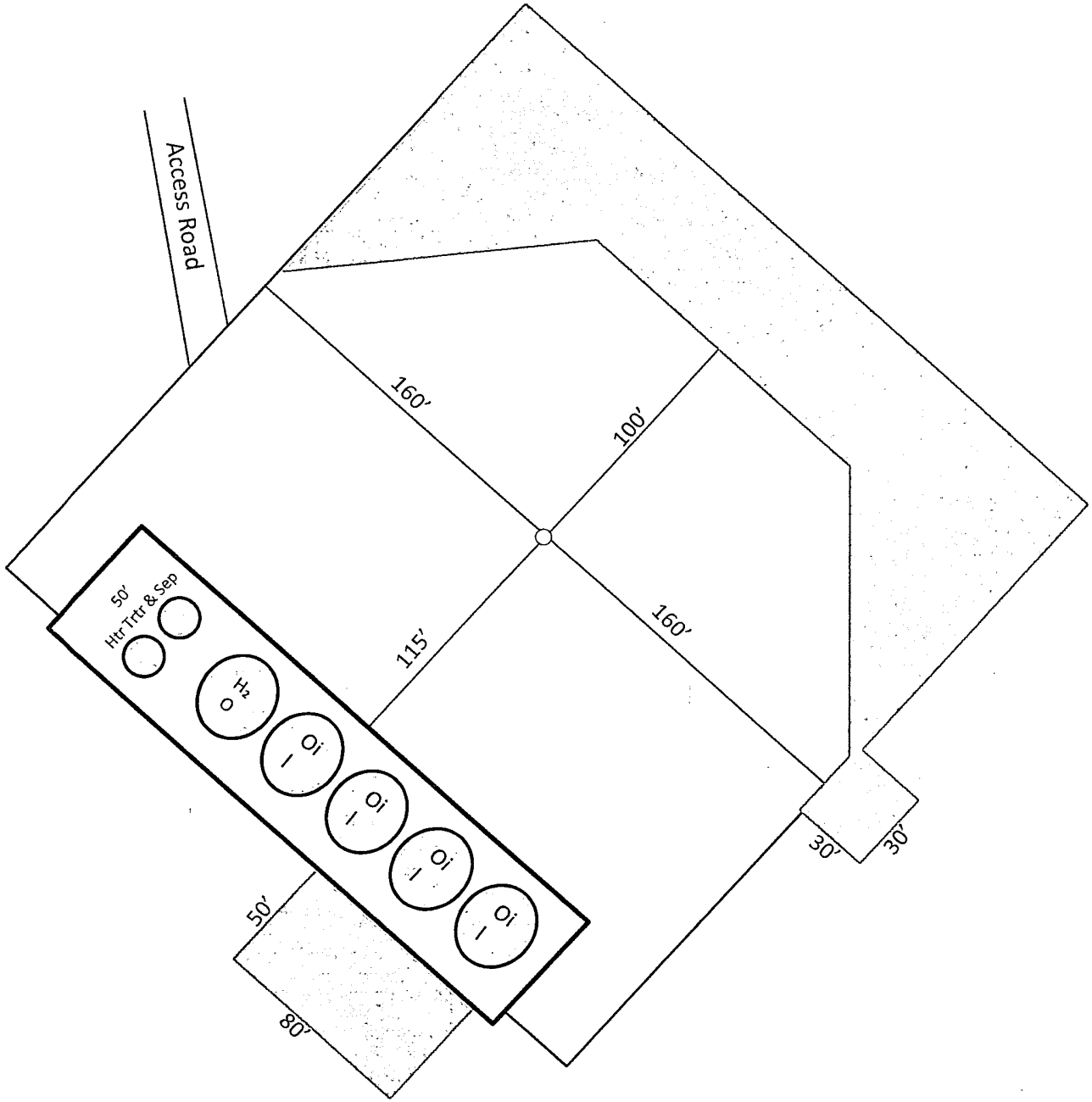


Exhibit D-1
Production Facilities Layout Diagram
Lynch '23' Fed Com 1
Cimarex Energy Co. of Colorado
23-20S-34E
SHL 330 FNL &1830 FEL
BHL 330 FSL & 1980 FEL
Lea County, NM





SR & A

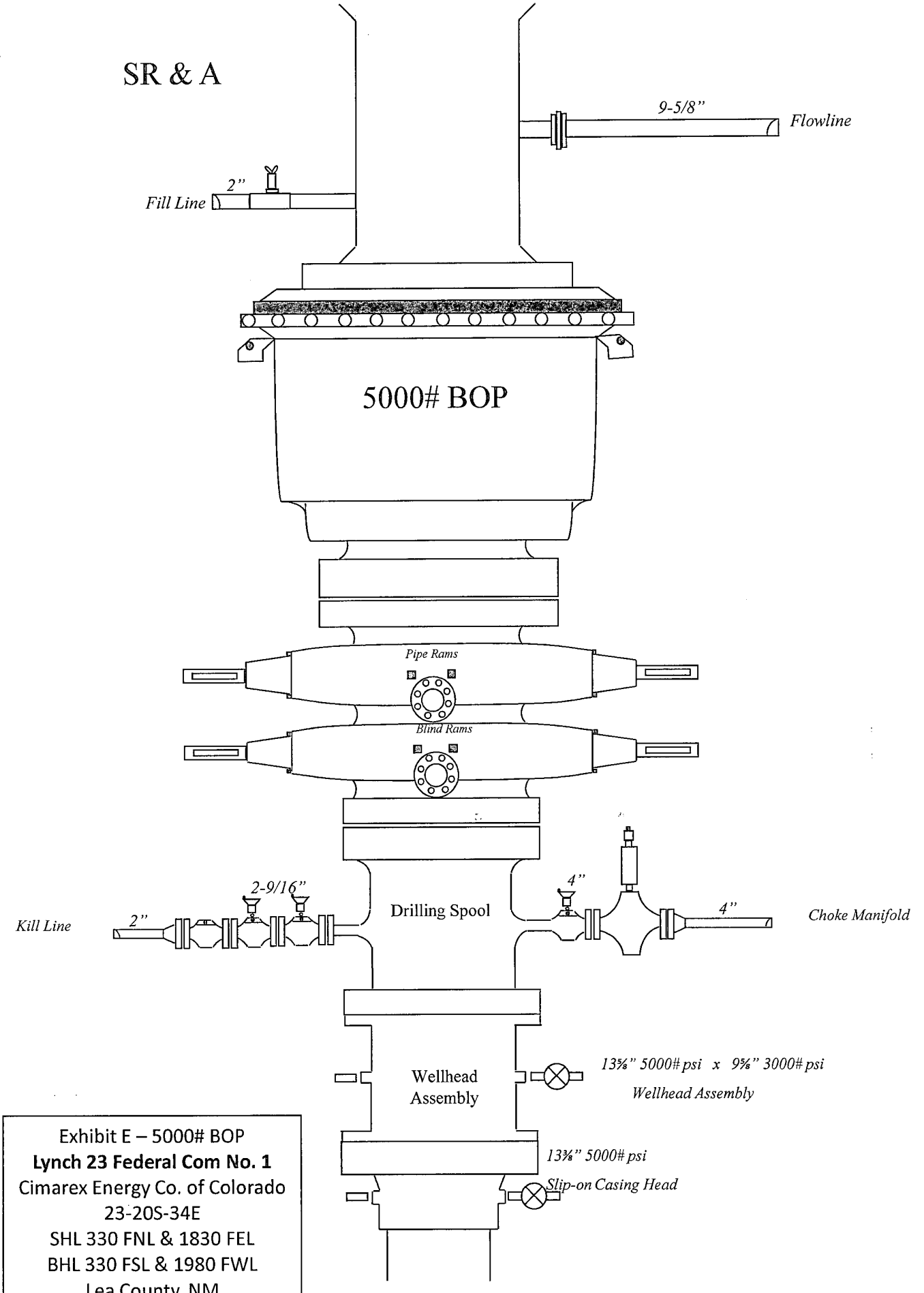


Exhibit E – 5000# BOP
Lynch 23 Federal Com No. 1
Cimarex Energy Co. of Colorado
23-20S-34E
SHL 330 FNL & 1830 FEL
BHL 330 FSL & 1980 FWL
Lea County, NM

Drilling Operations
Choke Manifold
5M Service

Exhibit E-1 – Choke Manifold Diagram
Lynch 23 Federal Com No. 1
Cimarex Energy Co. of Colorado
23-20S-34E
SHL 330 FNL & 1830 FEL
BHL 330 FSL & 1980 FWL
Lea County, NM