Secretary's Potash

ATS-07-297

OCD-HOBBS

Form 3160-3
(July 1992)

SUBMIT IN TRIPLICATE*

FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

147

(Other instructions on reverse side)

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

5. LEASE DESIGNATION AND SERIAL NO.
OK
~~NM-83611~~

6. IF INDIAN, ALLOTTEE OR TRIBE NAME

1a. TYPE OF WORK
DRILL [X] DEEPEN [ ]

1b. TYPE OF WELL
OIL WELL [ ] GAS WELL [X] OTHER SINGLE ZONE [X] MULTIPLE ZONE [ ]

7. UNIT AGREEMENT NAME
NM-70966-X Laguna Deep Unit

8. FARM OR LEASE NAME, WELL NO.
<300523>
Laguna Deep Unit No. 11

2. NAME OF OPERATOR
Cimarex Energy Co. of Colorado <162683>

9. API WELL NO.
30-025- 38755

3. ADDRESS AND TELEPHONE NO
P.O. Box 140907 Irving TX 75014 972-401-3111

10. FIELD AND POOL, OR WILDCAT
~~Quail Ridge~~; Morrow (Gas) Gem East

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.*)
660' 410' Per SN 5-3-07
~~1980'~~ FNL & ~~660'~~ FWL Unit D

11. SEC. T.,R.,M., BLOCK AND SURVEY OR AREA
25-19S-33E

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE*
24 miles SW of Hobbs, NM

12. COUNTY OR PARISH
Lea

13. STATE
NM

15. DISTANCE FROM PROPOSED* LOCATION TO NEAREST PROPERTY OR LEASE LINE, T.O (Also to nearest drlg. unit line, if any)
660'

16. NO. OF ACRES IN LEASE
160

17. NO. OF ACRES ASSIGNED TO THIS WELL
W/2 320

NM Bond # PB 7575

18. DISTANCE FROM PROPOSED LOCATION* TO NEAREST WELL, DRILLING COMPLETED, OR APPLIED FOR, ON THIS LEASE, FT.
2640'

19. PROPOSED DEPTH
14000'
~~14100'~~

20. ROTARY OR CABLE TOOLS
Rotary

21. ELEVATIONS (Show whether DF, RT, GR, etc.)
3617' GR

22. APPROX. DATE WORK WILL START*
05-01-07

23. PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE,SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
17-1/2"	H-40 13 3/8"	48 #	1400'	1040 sx circulate
12-1/4"	N-80 9 5/8"	40 #	3800'	1460 sx circulate
8-3/4"	P-110 5 1/2"	17#	14000'	2050 sx TOC 0'

From the base of the surface pipe through the running of production casing, the well will be equipped with a 5000# psi BOP system. We are requesting a variance for the 13-3/8" surface casing and BOP testing from Onshore Order No. 2, which states all casing strings below the conductor shall be pressure tested to 0.22 psi per foot or 1500# psi, whichever is greater, but not to exceed 70% of the manufacturer's stated maximum internal yield. During the running of the surface pipe and the drilling of the intermediate hole we do not anticipate any pressures greater than 1000# psi, and we are requesting a variance to test the 13-3/8" casing and BOP system to 1000# psi and use rig pumps instead of an independent service company.

NSL-5674

IN ABOVE SPACE, DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

24.
SIGNED Zeno Farris TITLE Mgr. Ops. Admin DATE 02-28-07

(This space for Federal or State office use)

PERMIT No. _____ APPROVAL DATE _____

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:

APPROVED BY /s/ Linda S. C. Rundell TITLE STATE DIRECTOR DATE JUN 15 2007

See Instructions On Reverse Side

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001, makes 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.

CAPITAN CONTROLLED WATER BASIN
APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

SEE ATTACHED FOR CONDITIONS OF APPROVAL

KZ

Cimarex Energy Co. of Colorado
5215 North O'Connor Blvd. □ Suite 1500 □ Irving, TX 75039 □ (972) 401-3111 □ Fax (972) 443-6486
Mailing Address: P.O. Box 140907 □ Irving, TX 75014-0907
A wholly-owned subsidiary of Cimarex Energy Co , a NYSE Listed Company, "XEC"

STATEMENT ACCEPTING RESPONSIBILITY FOR OPERATIONS

Bureau of Land Management
620 E. Greene St.
Carlsbad, New Mexico 88220
Attn: Ms. Linda Denniston

Cimarex Energy Co. of Colorado accepts all applicable terms, conditions, stipulations and restrictions concerning operations conducted on the leased land, or portion thereof, as described below:

Lease No.:	NM-83611 – NW4 25-19S-33E – 160 acres Fee Minerals – SW4 25-19S-33E – 160 acres
County:	Lea County, New Mexico
Formation (S):	Morrow
Bond Coverage:	Statewide BLM Bond
BLM Bond File No.:	NM 2575

Authorized Signature: Zeno Farris

Representing Cimarex Energy Co. of Colorado

Name: Zeno Farris

Title: Manager, Operations Administration

Date: February 26, 2007

Form 3160-5
(November 1994)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No 1004-0135
Expires July 31, 1996

OCD-HOBBS

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side

5 Lease Serial No.
NM-83611

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.
Laguna Deep Unit

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

8. Well Name and No.
Laguna Deep Unit No. 11

2 Name of Operator
Cimarex Energy Co. of Colorado

9 API Well No
30-025- 38755

3a Address
PO Box 140907; Irving, TX 75014-0907

3b. Phone No. *(include area code)*
972-401-3111

10 Field and Pool, or Exploratory Area
Gem; Morrow, East (Gas)

4 Location of Well *(Footage, Sec , T , R., M., or Survey Description)*
660' FNL & 410' FWL
25-19S-33E

11 County or Parish, State
Lea County, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
[X] Notice of Intent	[ ] Acidize	[ ] Deepen	[ ] Production (Start/Resume)	[ ] Water Shut-Off
	[ ] Alter Casing	[ ] Fracture Treat	[ ] Reclamation	[ ] Well Integrity
[ ] Subsequent Report	[ ] Casing Repair	[ ] New Construction	[ ] Recomplete	[ ] Other
	[X] Change Plans	[ ] Plug and Abandon	[ ] Temporarily Abandon	
[ ] Final Abandonment Notice	[ ] Convert to Injection	[ ] Plug Back	[ ] Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, included estimated starting date of any proposed work and approximate duration thereof If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the bond under which the work will be performed or provide the Bond No on file with BLM/BIA Required subsequent reports shall be filed within 30 days following completion of the involved operations If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 shall be filed once testing has been completed Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Due to the presence of sand dunes and per the surface owner's request, Cimarex is moving the Laguna Deep Unit 11 **FROM** 1980' FNL & 660' FWL **TO** 660' FNL & 410' FWL.

Please see attached revised plats.

14 I hereby certify that the foregoing is true and correct

Name *(Printed/Typed)*
Natalie Krueger

Title
Reg Analyst 1

Signature
Natalie Krueger

Date
May 3, 2007

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by /s/ Linda S. C. Rundell

Title STATE DIRECTOR

Date JUN 15 2007

Conditions of Approval, if any, are attached Approval of this notice 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

Office NM STATE OFFICE

Title 18 U.S C Section 1001, makes 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 reverse)

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 October 12, 2005

Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025- 38755	77380	Gem; Morrow, East (Gas)

Property Code	Property Name	Well Number
300523	LAGUNA DEEP UNIT	11

OGRID No.	Operator Name	Elevation
162683	CIMAREX ENERGY CO. OF COLORADO	3628'

Surface Location

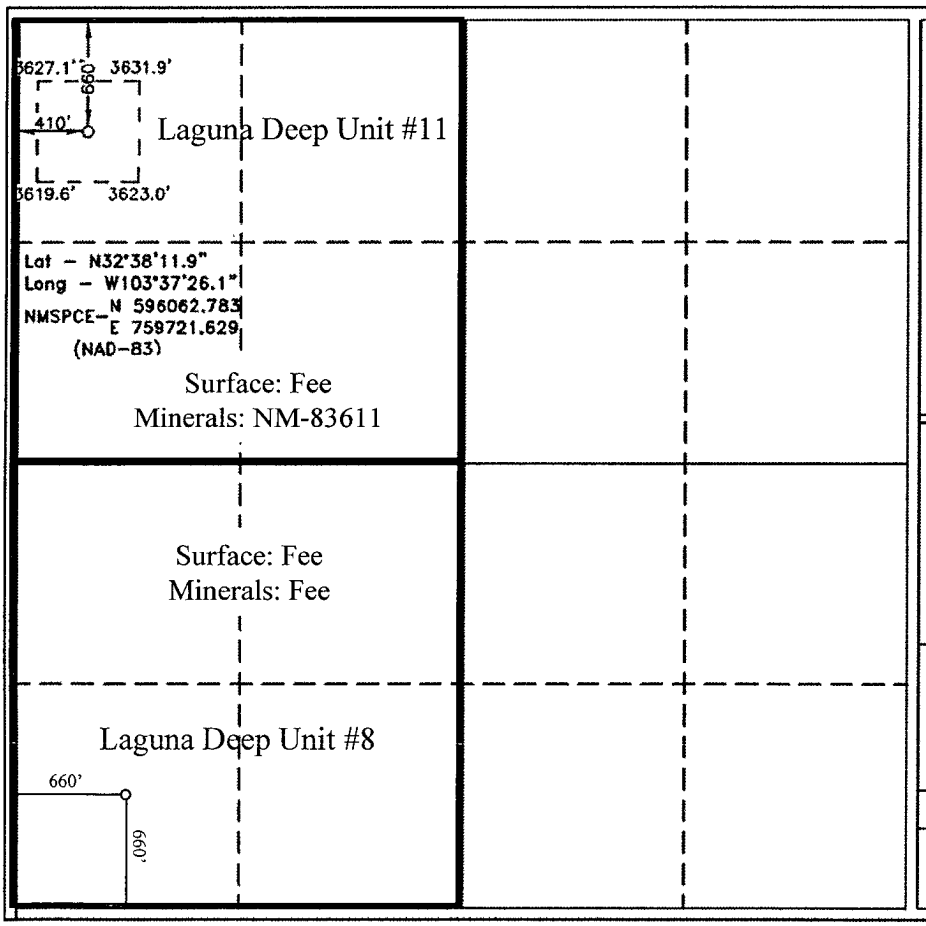
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	25	19 S	33 E		660	NORTH	410	WEST	LEA

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

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320	Y	U	NSL ~~Pending~~ 5674

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 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 05-03-07
Signature Date

Zeno Farris
Printed Name

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.

MAY 01, 2007
Date Surveyed

Signature & Seal of Professional Surveyor

GARY L. JONES
NEW MEXICO
7977
REGISTERED PROFESSIONAL SURVEYOR

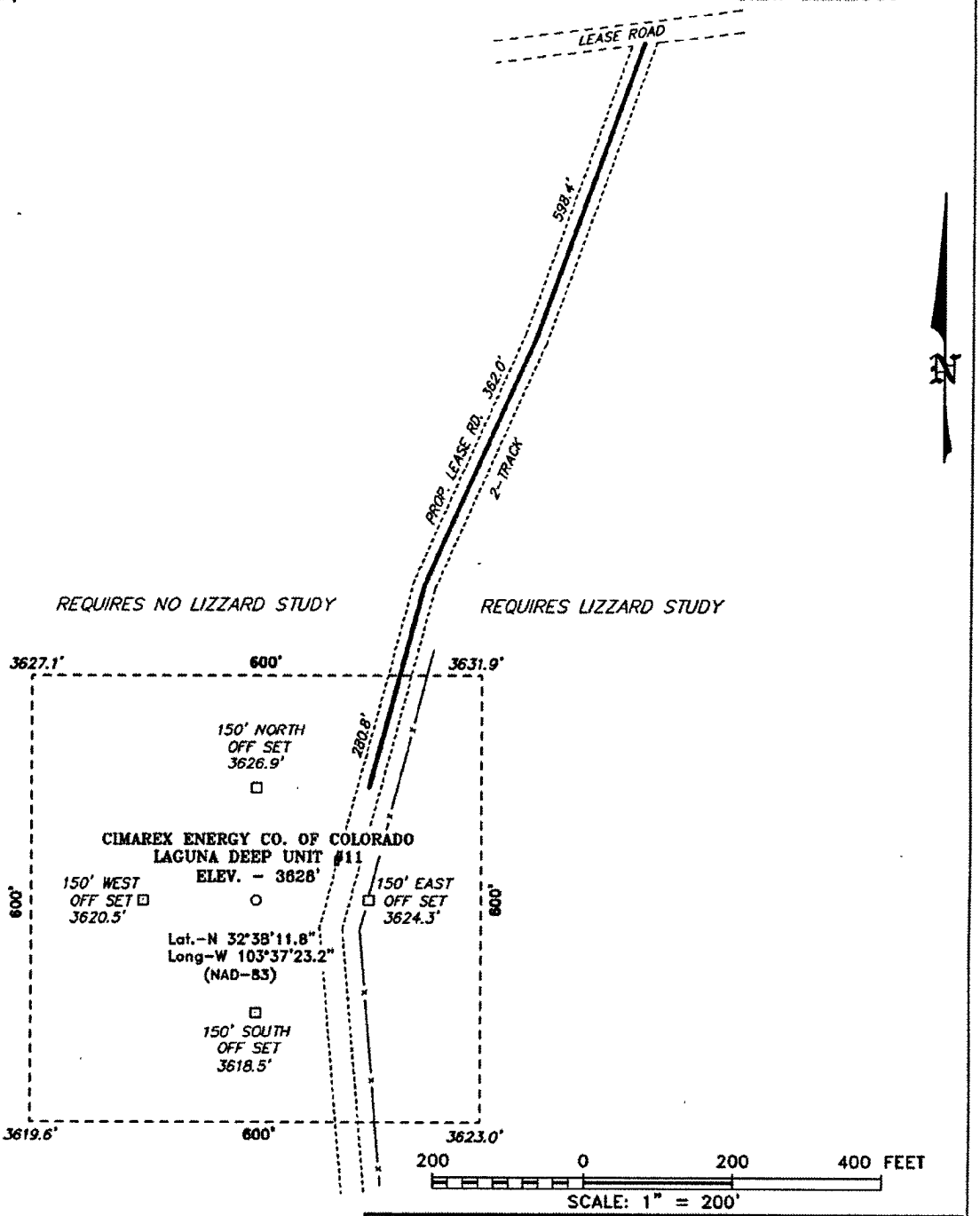
W.O. No. 19890

Certificate No. Gary L. Jones 7977

BASIN SURVEYS

SECTION 25, TOWNSHIP 19 SOUTH, RANGE 33 EAST, N.M.P.M.,

LEA COUNTY, NEW MEXICO.



Directions to Location:

FROM THE JUNCTION OF 62-180 AND CO. RD. H-55 (SMITH RANCH), GO NORTH ON CO. RD. H-55 FOR 2.1 MILES THENCE NORTHWEST 1.2 MILES, THENCE EAST 0.6 MILES TO DEEP UNIT #4 THENCE NORTHEAST 0.7 MILES TO TWO TRACK AND PROPOSED LEASE ROAD.

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

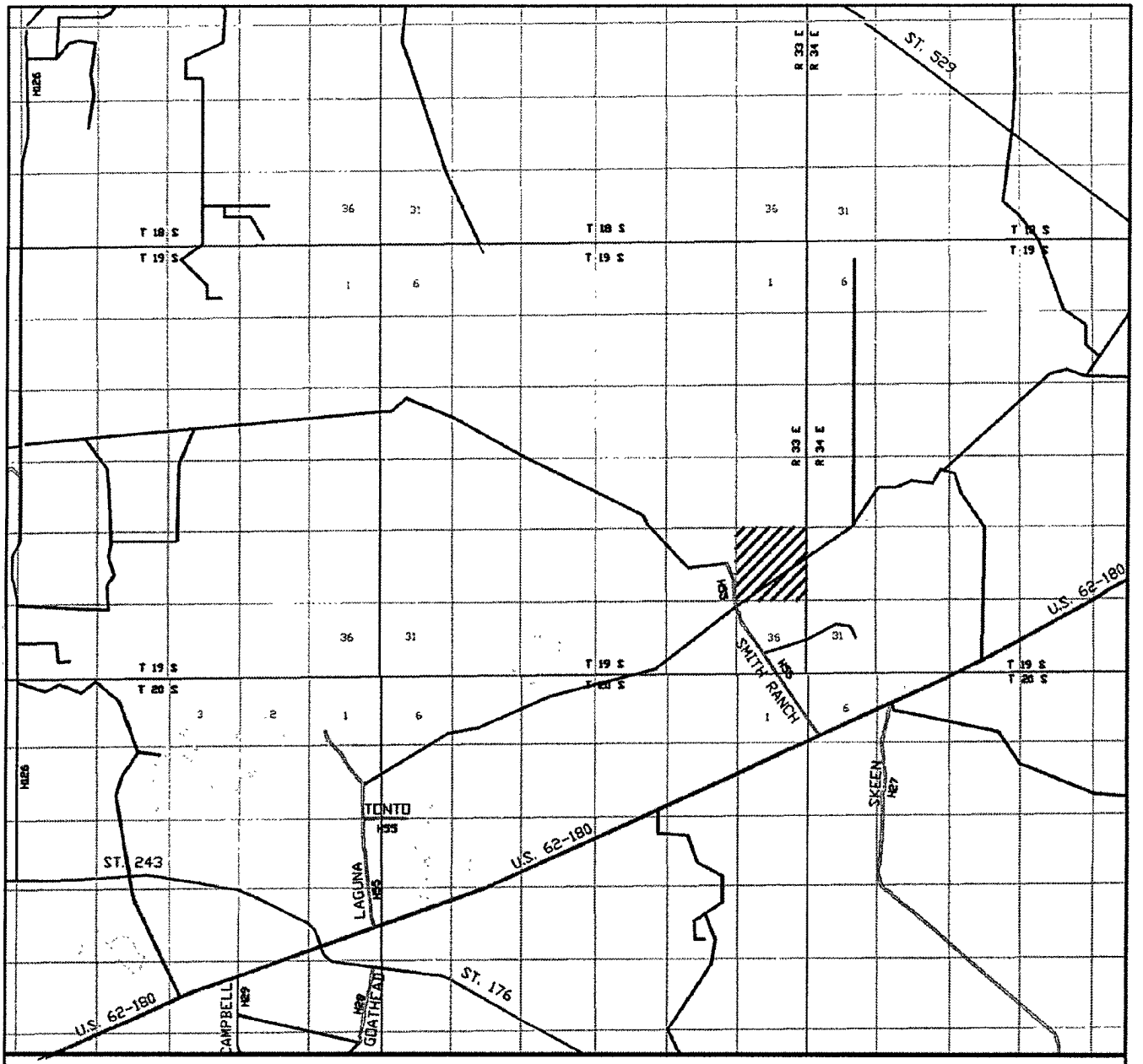
W.O. Number: 18090	Drawn By: J. M. SMALL
Date: 05-02-2007	Disk: JMS 18090W

CIMAREX ENERGY CO. OF COLORADO

REF: LAGUNA DEEP UNIT #11 / WELL PAD TOPO A

THE LAGUNA DEEP UNIT #11 LOCATED 660' FROM THE NORTH LINE AND 410' FROM THE WEST LINE OF SECTION 25, TOWNSHIP 19 SOUTH, RANGE 33 EAST, N.M.P.M., LEA COUNTY, NEW MEXICO.

Survey Date: 05-01-2007	Sheet 1 of 1 Sheets



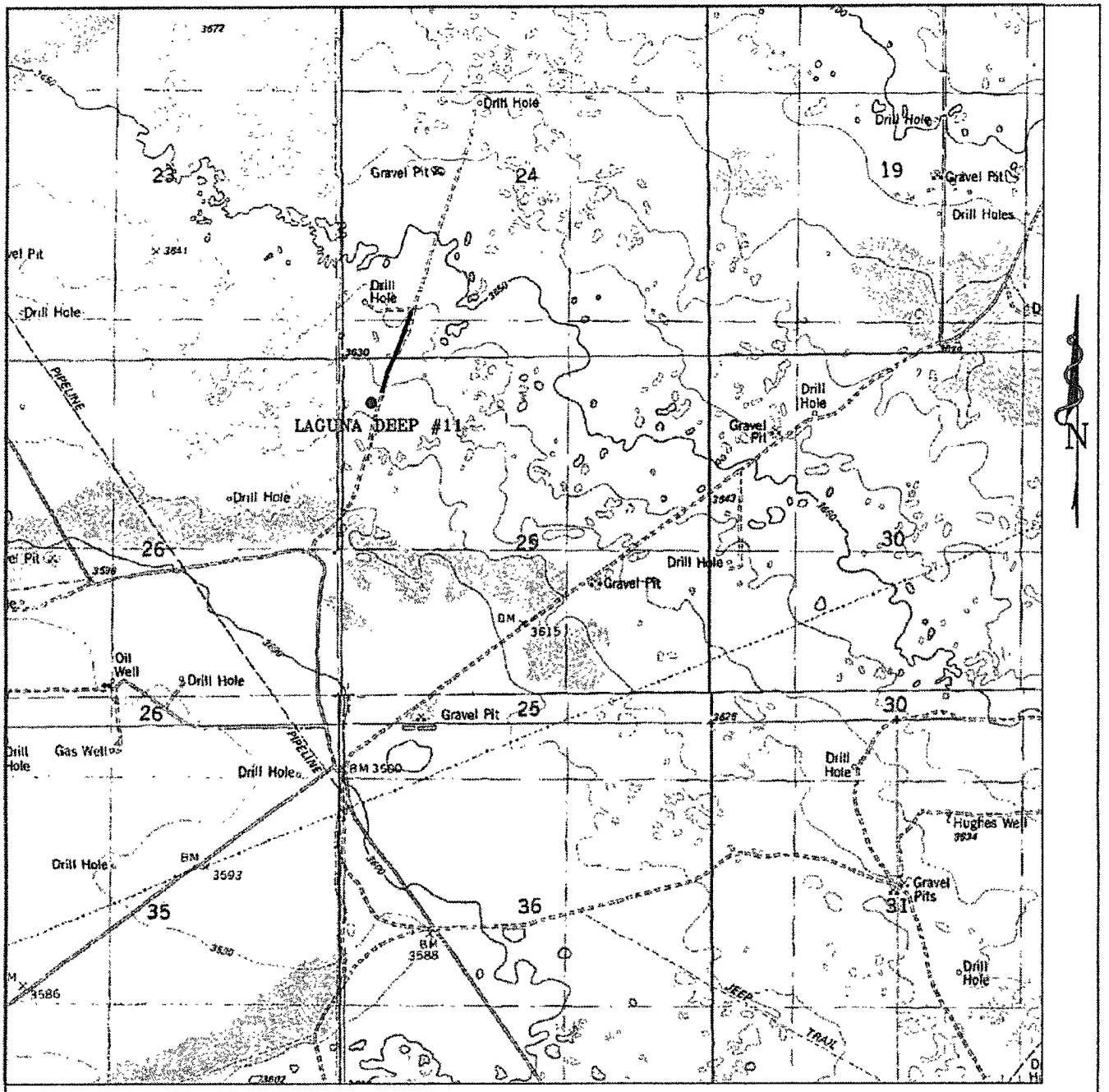
LAGUNA DEEP UNIT #11
Located 660' FNL and 410' FWL
Section 25, Township 19 South, Range 33 East,
N.M.P.M., Lea County, New Mexico.

basin surveys
focused on excellence in the oilfield
P.O. Box 1786
1120 N. West County Rd.
Hobbs, New Mexico 88241
(505) 393-7316 – Office
(505) 392-3074 – Fax
basinsurveys.com

W.O. Number:	JMS 18090TR
Survey Date:	05-01-2007
Scale:	1" = 2 MILES
Date:	05-02-2007

CIMAREX ENERGY CO. OF COLORADO

A



LAGUNA DEEP UNIT #11
Located 660' FNL and 410' FWL
Section 25, Township 19 South, Range 33 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
(505) 393-7316 - Office
(505) 392-3074 - Fax
basinsurveys.com

W.O. Number:	JMS 18090T
Survey Date:	05-01-2007
Scale:	1" = 2000'
Date:	05-02-2007

CIMAREX ENERGY CO. OF COLORADO

Application to Drill

Cimarex Energy Co. of Colorado
Laguna Deep Unit No. 11
Unit E Section 25
T19S-R33E 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: 1980' FNL & 660' FWL

2 Elevation above sea level: GR 3617'

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: 14000'

6 Estimated tops of geological markers:

Yates	3450'	Atoka	12330'
Delaware	5250'	Morrow Clastics	12950'
Bone Spring	8050'	Barnett	13525'
Wolfcamp	11000'		
Strawn	12075'		

7 Possible mineral bearing formation:

Morrow	Gas
Bone Spring	Oil

8 Casing program:

Hole Size	Interval	Casing OD	Weight	Thread	Collar	Grade
17-1/2"	0-1400'	13-3/8"	48	8-R	ST&C	H-40
12-1/4"	0-3800'	9-5/8"	40	8-R	LT&C	N-80
8-3/4"	0-14000'	5-1/2"	17	8-R	LT&C	P-110

Application to Drill

Cimarex Energy Co. of Colorado
Laguna Deep Unit No. 11
Unit E Section 25
T19S-R33E Lea County, NM

9 Cementing & Setting Depth:

13-3/8"	Surface	Set 1400' of 13-3/8" H-40 48 # ST&C casing. Cement with 1040 Sx. Of Class "C" cement + additives, circulate cement to surface.
9-5/8"	Intermediate	Set 3800' of 9-5/8" N-80 40# LT&C casing. Cement with 1460 Sx. Of Class POZ/C Cement + additives, circulate cement to surface.
5-1/2"	Production	Set 14000' of 5-1/2" P-110 17# LT&C casing. Cement with 2050 sx Super H + additives. TOC 0.'

10 Pressure control Equipment: Exhibit "E". A 13 3/8" 5000 PSI working pressure B.O.P. 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 below 6000'. 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. BOP unit will be hydraulically operated. BOP will be nippled up on the 9 5/8" casing and will be 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.

11 Proposed Mud Circulating System:

Depth	Mud Wt	Viscosity	Fluid Loss	Type Mud
0 - 1400'	8.4 - 8.6	30 - 32	May lose circ.	Fresh water spud mud. Add paper to control seepage and high viscosity sweeps to clean hole.
1400' - 3800'	9.7 - 10.0	28 - 29	May lose circ.	Brine water. Add paper as needed to control seepage and add lime to control pH (9-10). Use high viscosity sweeps to clean hole.
3800' - 8300'	8.4 - 9.9	28 - 29	NC	Brine water. Paper for seepage. Lime for PH (9 - 9.5)
8300' - 10000'	8.45 - 8.9	28 - 29	NC	Cut brine. Caustic for pH control.
10000' - 14000'	8.9 - 9.7	29 - 45	NC	Cut brine. Caustic for pH control.

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. Mud system monitoring equipment with derrick floor indicators and visual/audio alarms shall be installed and operative prior to drilling into the Wolfcamp formation. This equipment will remain in use until production casing is run and cemented.

Application to Drill

Cimarex Energy Co. of Colorado
Laguna Deep Unit No. 11
Unit E Section 25
T19S-R33E Lea County, NM

12 Testing, Logging and Coring Program:

A. Mud logging program: Two-man unit from 3000' 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. The area has a potiential H2S hazard. An H2S drilling plan is attached. 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 4000 PSI, estimated BHT 175.

14 Anticipated Starting Date and Duration of Operations:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 35-45 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. The Morrow pay will be perforated and stimulated. The well will be tested and potentialed as a gas well.

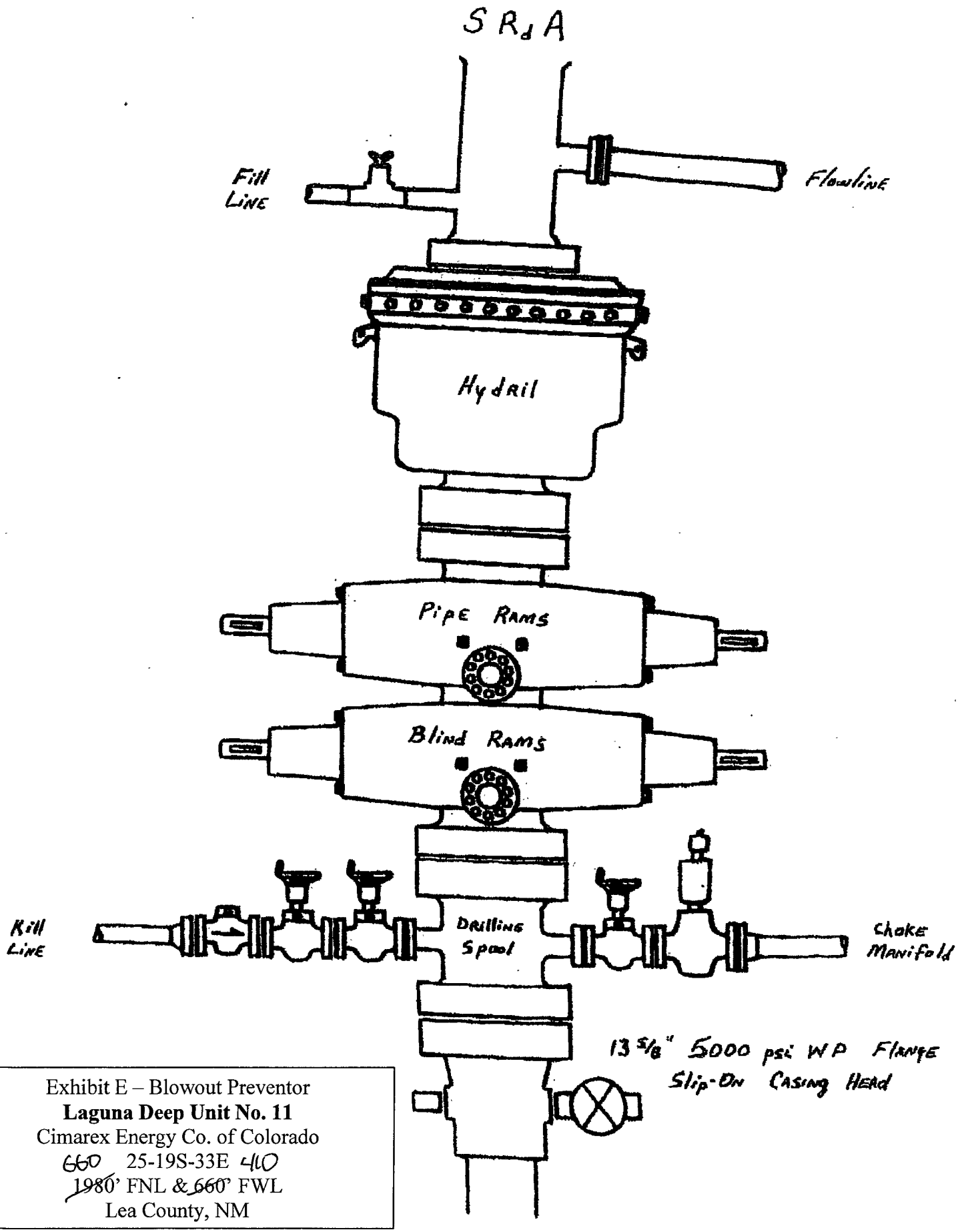


Exhibit E – Blowout Preventor
Laguna Deep Unit No. 11
Cimarex Energy Co. of Colorado
660 25-19S-33E 410
~~1980~~' FNL & ~~660~~' FWL
Lea County, NM

DRILLING OPERATIONS
CHOKE MANIFOLD
5M SERVICE

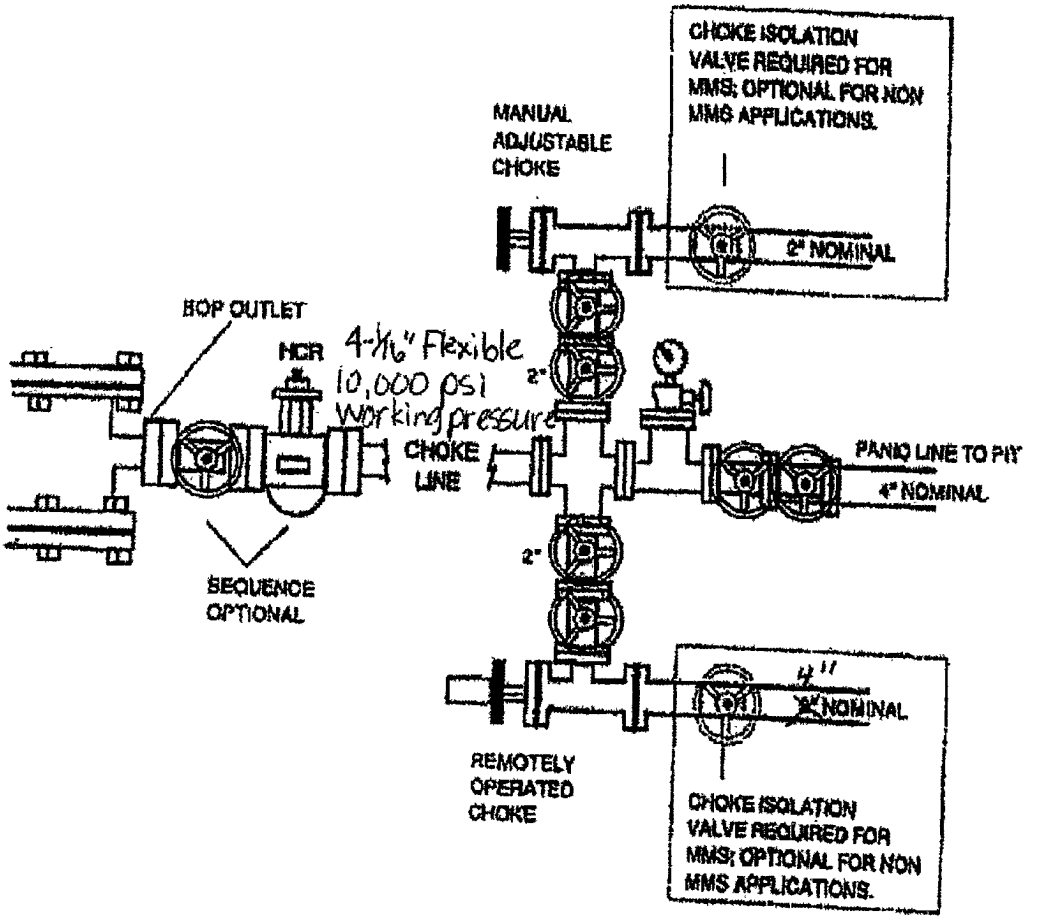


Exhibit E-1 – Choke Manifold Diagram
Laguna Deep Unit No. 11
Cimarex Energy Co. of Colorado
660 25-19S-33E 410
~~1980~~' FNL & ~~660~~' FWL
Lea County, NM

Hydrogen Sulfide Drilling Operations Plan

Cimarex Energy Co. of Colorado
Laguna Deep Unit No. 11
Unit E Section 25
T19S-R33E Lea County, NM

1 All Company and Contract personnel admitted on location must be trained by a qualified H2S safety instructor to the following:

A. Characteristics of H2S
B. Physical effects and hazards
C. Proper use of safety equipment and life support systems.
D. Principle and operation of H2S detectors, warning system and briefing
E. Evacuation procedure, routes and first aid.
F. Proper use of 30 minute pressure demand air pack.

2 H2S Detection and Alarm Systems

A. H2S detectors and audio alarm system to be located at bell nipple, end of flow line (mud pit) and on derrick floor or doghouse.

3 Windsock and/or wind streamers

A. Windsock at mudpit area should be high enough to be visible.
B. Windsock at briefing area should be high enough to be visible.

4 Condition Flags and Signs

A. Warning sign on access road to location.
B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H2S present in dangerous concentration. Only emergency personnel admitted to location.

5 Well control equipment

A. See exhibit "E"

6 Communication

A. While working under masks chalkboards will be used for communication.
B. Hand signals will be used where chalk board is inappropriate.
C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephones will be available at most drilling foreman's trailer or living quarters.

7 Drillstem Testing not anticipated.

Hydrogen Sulfide Drilling Operations Plan

Cimarex Energy Co. of Colorado
Laguna Deep Unit No. 11
Unit E Section 25
T19S-R33E Lea County, NM

8 Drilling contractor supervisor will be required to be familiar with the effects H2S has on tubular goods and other mechanical equipment.

9 If H2S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with H2S scavengers if necessary.

CONDITIONS OF APPROVAL - DRILLING

Operator's Name: Cimarex Energy Co. of Colorado
Well Name & No. 11-Laguna Deep Unit
Location: 0660FNL, 0410FWL, Section 25, T-19-S, R-33-E
Lease: NM-83611

I. DRILLING OPERATIONS REQUIREMENTS:

A. The Bureau of Land Management (BLM) is to be notified a minimum of 4 hours in advance for a representative to witness:

1. Spudding well
2. Setting and/or Cementing of all casing strings
3. BOPE tests

- Lea County call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (505) 393-3612

B. A Hydrogen Sulfide (H2S) Drilling Plan should be activated 500 feet prior to drilling into the Yates formation. **H2S reported in Section 18 and 19 measuring 150-1000 ppm in gas streams and 100-250 ppm in STVs. Plan attached to APD.**

C. 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.

D. If floor controls are required, (3M or Greater) 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 are located, this does not include the dog house or stairway area.

II. CASING:

A. The **13-3/8** inch surface casing shall be set at **a minimum of 25 feet into the Rustler Anhydrite approximately 1400 feet** and cemented to the surface.

1. 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 a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
2. Wait on cement (WOC) time for a primary cement job will be a minimum of 12 hours for a non-water basin, 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compression strength, whichever is greater. (This is to include the lead cement)
3. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compression strength, whichever is greater.
4. If cement falls back, remedial action will be done prior to drilling out that string.

Possible lost circulation in the Grayburg and Bone Spring formations.

Possible bursts of high pressure gas in the Wolfcamp. Strawn, Atoka, and Morrow may be over pressured.

B. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is **cement shall circulate to surface.** If cement does not circulate see A.1 thru 4.

C. The minimum required fill of cement behind the **5-1/2** inch production casing is **cement shall extend a minimum of 200' inside the intermediate casing. Operator has calculated for cement to circulate.**

D. 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.

III. PRESSURE CONTROL:

A. 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.

B. 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.

C. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **9-5/8"** intermediate casing shoe shall be **5000 (5M)** PSI.

D. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

1. The tests shall be done by an independent service company.
2. The results of the test shall be reported to the appropriate BLM office.
3. 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.
4. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi in accordance with API RP 53. 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.
5. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp formation**. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.
6. A variance to test the surface casing and BOP/BOPE to the reduced pressure of **1000** psi with the rig pumps is approved.

IV. DRILLING MUD:

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

Engineer on call phone: 505-706-2779

WWI 031207

BLM Serial #: NM-83611
Company Reference: Cimarex Energy Company of Colorado
Well # & Name: Laguna Deep Unit No.11

STANDARD STIPULATIONS FOR PERMANENT RESOURCE ROADS
CARLSBAD FIELD OFFICE

A copy of the APD 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.

The holder/grantee/permittee shall hereafter be identified as the holder in these stipulations. The Authorized Officer is the person who approves the Application for Permit to Drill (APD) and/or Right-of-Way (ROW).

GENERAL REQUIREMENTS

A. 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.

B. 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 U.S.C. 2601, *et. seq.*) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this 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.

C. 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). This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

D. If, during any phase of the construction, operation, maintenance, or termination of the road, any oil or other pollutant should be discharged, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil of other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all

damages to Federal lands resulting there from the Authorized Officer may take such measures as deemed necessary to control and cleanup 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 the holder of any liability or responsibility.

E. The holder shall minimize disturbance to existing fences and other improvements on public domain surface. 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 make a documented good-faith effort to 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.

F. The Holder shall ensure that the entire right-of-way, including the driving surface, ditching and drainage control structures, road verges and any construction sites or zones, will be kept free of the following plant species: Malta starthistle, African rue, Scotch thistle and salt cedar. The Holder agrees to comply with the following stipulations:

1. ROAD WIDTH AND GRADE

The road will have a driving surface of 14 feet (all roads shall have a minimum driving surface of 12 feet, unless local conditions dictate a different width). The maximum grade is 10 percent unless the box below is checked. Maximum width of surface disturbance from construction will be 30 feet.

☒ Those segments of road where grade is in excess of 10% for more than 300 feet shall be designed by a professional engineer.

2. CROWNING AND DITCHING

Crowning with materials on site and ditching on one side of the road on the uphill side will be required. The road cross-section will conform to the cross section diagrams in Figure 1. If conditions dictate, ditching may be required for both sides of the road; if local conditions permit, a flat-bladed road may be considered (if these conditions exist, check the appropriate box below). The crown shall have a grade of approximately 2% (i.e., 1" crown on a 12' wide road).

☒ Ditching will be required on both sides of the roadway as shown on the attached map or as staked in the field.

3. DRAINAGE

Drainage control shall be ensured over the entire road through the use of borrow ditches, out-sloping, in-sloping, natural rolling topography, lead-off (turnout) ditches, culverts, and/or drainage dips.

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

SPACING INTERVAL FOR TURNOUT DITCHES

Percent slope	Spacing interval
0% - 4%	400' - 150'
4% - 6%	250' - 125'
6% - 8%	200' - 100'
8% - 10%	150' - 75'

A typical lead-off ditch has a minimum depth of 1 foot below and a berm 6 inches above natural ground level. The berm will be on the down-slope side of the lead-off ditch. The ditch end will tie into vegetation whenever possible.

For this road the spacing interval for lead-off ditches shall be at 400 foot intervals.

B. Culvert pipes shall be used for cross drains where drainage dips or low water crossings are not feasible. The minimum culvert diameter must be 18 inches. Any culvert pipe installed shall be of sufficient diameter to pass the anticipated flow of water. Culvert location and required diameter are shown on the attached map (Further details can be obtained from the Roswell District Office or the appropriate Resource Area Office).

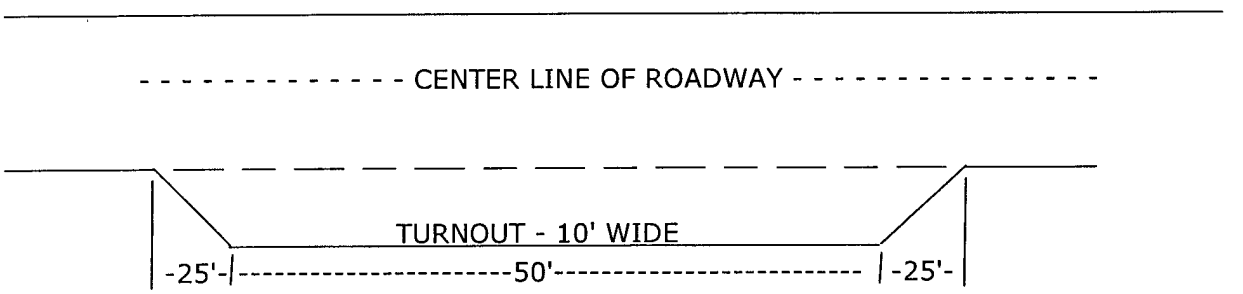
C. On road slopes exceeding 2%, drainage dips shall drain water into an adjacent lead-off ditch. Drainage dip location and spacing shall be determined by the formula:

$$\text{spacing interval} = \frac{400'}{\text{road slope in \%}} + 100'$$

Example: 4% slope: spacing interval = $\frac{400}{4} + 100 = 200$ feet

4. TURNOUTS

Unless otherwise approved by the Authorized Officer, vehicle turnouts will be required. Turnouts will be located at 2000-foot intervals, or the turnouts will be intervisible, whichever is less. Turnouts will conform to the following diagram:



STANDARD TURNOUT - PLAN VIEW

5. SURFACING

Surfacing of the road or those portions identified on the attached map may, at the direction of the Authorized Officer, be required, if necessary, to maintain traffic within the right-of-way with caliche, gravel, or other surfacing material which shall be approved by the Authorized Officer. When surfacing is required, surfacing materials will be compacted to a minimum thickness of six inches with caliche material. The width of surfacing shall be no less than the driving surface. Prior to using any mineral materials from an existing or proposed Federal source, authorization must be obtained from the Authorized Officer.

A sales contract for the removal of mineral materials (caliche, sand, gravel, fill dirt, etc.) from an authorized pit, site, or on location must be obtained from the BLM prior to using any such mineral material from public lands. Contact the BLM solid minerals staff for the various options to purchase mineral material.

6. CATTLEGUARDS

Where used, all cattleguard grids and foundation designs and construction shall meet the American Association of State Highway and Transportation Officials (AASHTO) Load Rating H-20, although AASHTO U-80 rated grids shall be required where heavy loads (exceeding H-20 loading), are anticipated (See BLM standard drawings for cattleguards). Cattleguard grid length shall not be less than 8 feet and width of not less than 14 feet. A wire gate (16-foot minimum width) will be provided on one side of the cattleguard unless requested otherwise by the surface user.

7. MAINTENANCE

The holder shall maintain the road in a safe, usable condition. A maintenance program shall include, but not be limited to blading, ditching, culvert installation, culvert cleaning, drainage installation, cattleguard maintenance, and surfacing.

8. PUBLIC ACCESS

Public access along this road will not be restricted by the holder without specific written approval being granted by the Authorized Officer. Gates or cattleguards on public lands will not be locked or closed to public use unless closure is specifically determined to be necessary and is authorized in writing by the Authorized Officer.

9. CULTURAL RESOURCES

Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the authorized officer. The 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 the proper mitigation measures will be made by the authorized officer after consulting with the holder.