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Form 3160-3
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
~~LC-40379~~ NM 109642

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☑ DRILL ☐ REENTER

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

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

8. Lease Name and Well No.
Connie 19 Fed Com E, Well #1

2. Name of Operator
ST. MARY LAND & EXPLORATION COMPANY 154903

9. API Well No.
30 015 - 36395

3a. Address 3300 N. A St., Bldg 7, Ste. 200, Midland, TX 79705

3b. Phone No. *(include area code)*
432 684-6381/688-1788

10. Field and Pool, or Exploratory
Und.Crow Flats; Wolfcamp

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*
At surface 2000' FNL and 100' FWL(E)
At proposed prod. zone 2000' FNL and 330' FEL (H)
(PATHFINDER WOLFCAMP)

11. Sec., T. R. M. or Blk. and Survey or Area
Sec 19, T16S, R29E

14. Distance in miles and direction from nearest town or post office*
16 miles NW from Loco Hills, 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) 330'

16. No. of acres in lease
160

17. Spacing Unit dedicated to this well
160

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1st well

19. Proposed Depth
Vertical: 7200'
10,976' MD; 6979' TVD est

20. BLM/BIA Bond No. on file
~~6041672~~ NM 1022

21. Elevations (Show whether DF, KDB, RT, GL, etc.)
3580.4 GR

22. Approximate date work will start*
05/01/2008

23. Estimated duration
16-20 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No.1, must 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 must 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.

25. Signature — Name *(Printed/Typed)*: Ann E. Ritchie — Date: 03/14/2008

Title: Regulatory Agent 432 684-6381 ann.ritchie@wtor.net

Approved by *(Signature)*: /s/ James A. Amos — Name *(Printed/Typed)*: /s/ James A. Amos — Date: JUN 27 2008

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.

(Continued on page 2)

*(Instructions on page 2)

ROSWELL CONTROLLED WATER BASIN

NOTE: NEW PIT RULE
19-15-17 NMAC PART 17
A form C-144 must be approved before starting drilling operations.

SEE ATTACHED FOR CONDITIONS OF APPR...

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

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

Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease- 4 Copies
Fee Lease- 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-36395	96794	Wildcat Wolfcamp O

Property Code	Property Name	Well Number
37232	CONNIE 19 FEDERAL COM "E"	1

OGRID No.	Operator Name	Elevation
154903	ST. MARY LAND & EXPLORATION COMPANY	3580.4'

Surface Location

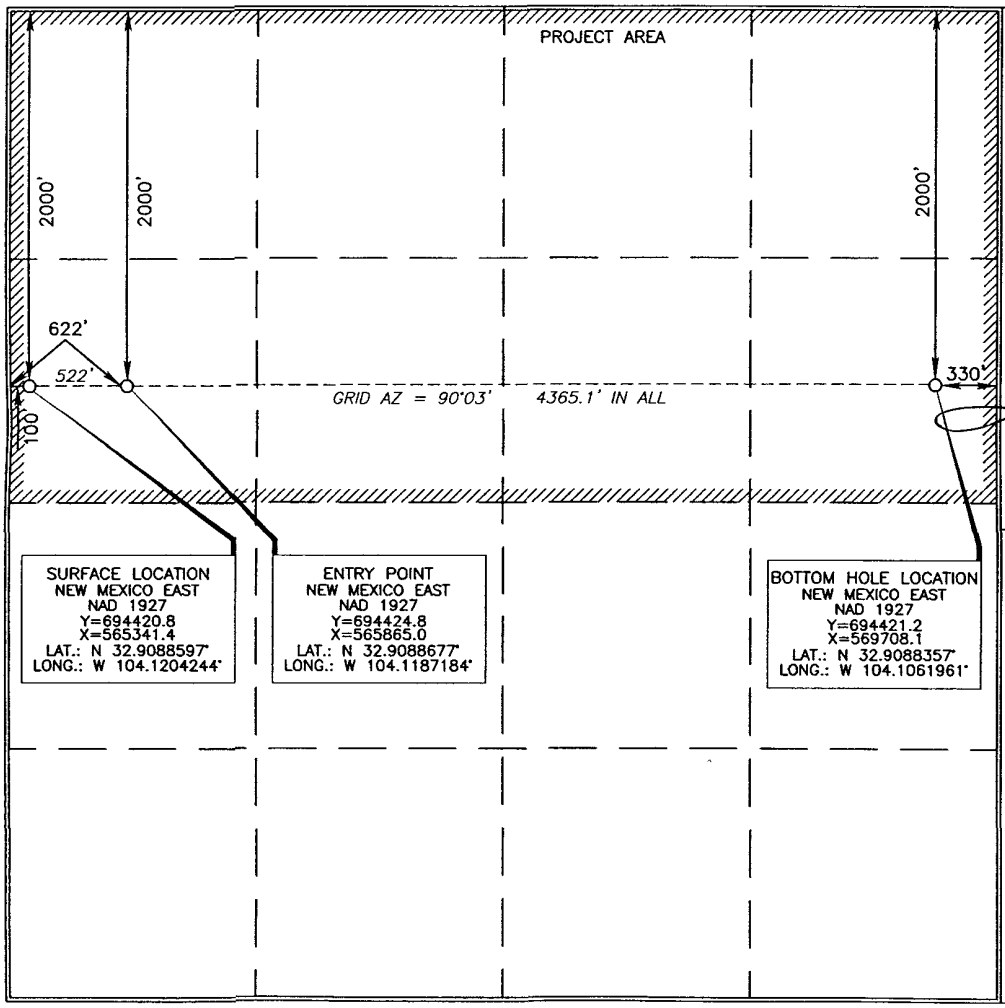
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	19	16 SOUTH	29 EAST, N.M.P.M.	2	2000'	NORTH	100'	WEST	EDDY

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
H	19	16 SOUTH	29 EAST, N.M.P.M.		2000'	NORTH	330'	EAST	EDDY

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.

Signature 6/4/08
Date

KENNETH C. DICKESON
AGENT FOR ST. MARY
Printed Name LAND & EXPLORATION COMPANY

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.

NEW MEXICO
15079
REGISTERED PROFESSIONAL LAND SURVEYOR

FEBRUARY 16, 2008
Date of Survey

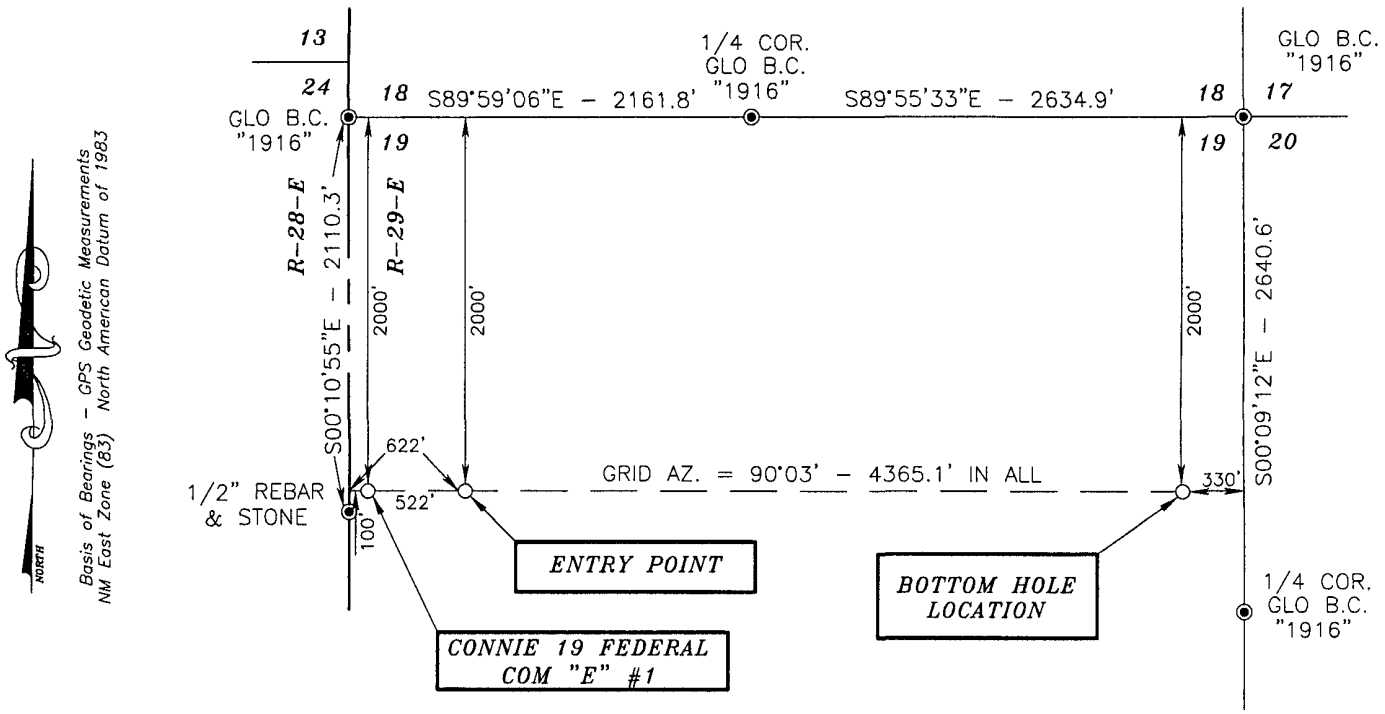
Signature and Seal of Professional Surveyor

5/29/2008

Certificate Number 15079

WO# 080216WL-b (Rev. A) (KA)

SECTION 19, TOWNSHIP 16 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY NEW MEXICO



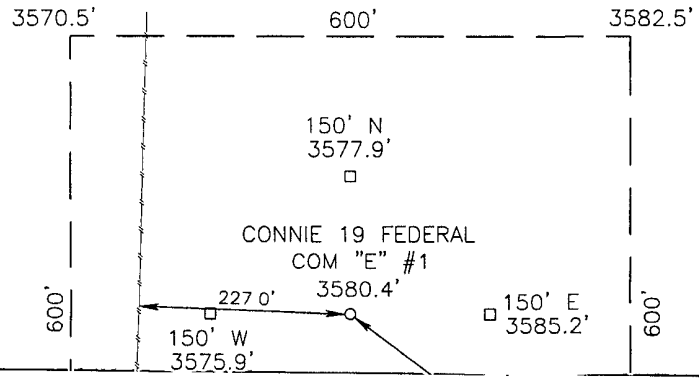


Exhibit "A"

Attachment
Bureau of Land Management
Form 3160-3 "Application for Permit to Drill or Re-enter"

St. Mary Land & Exploration Company 154903
Connie 19 Fed Com E, Well #1
Section 19, T16S, R29E, Eddy County, New Mexico

Surface Location:

2000' FNL and 100' FWL (E)

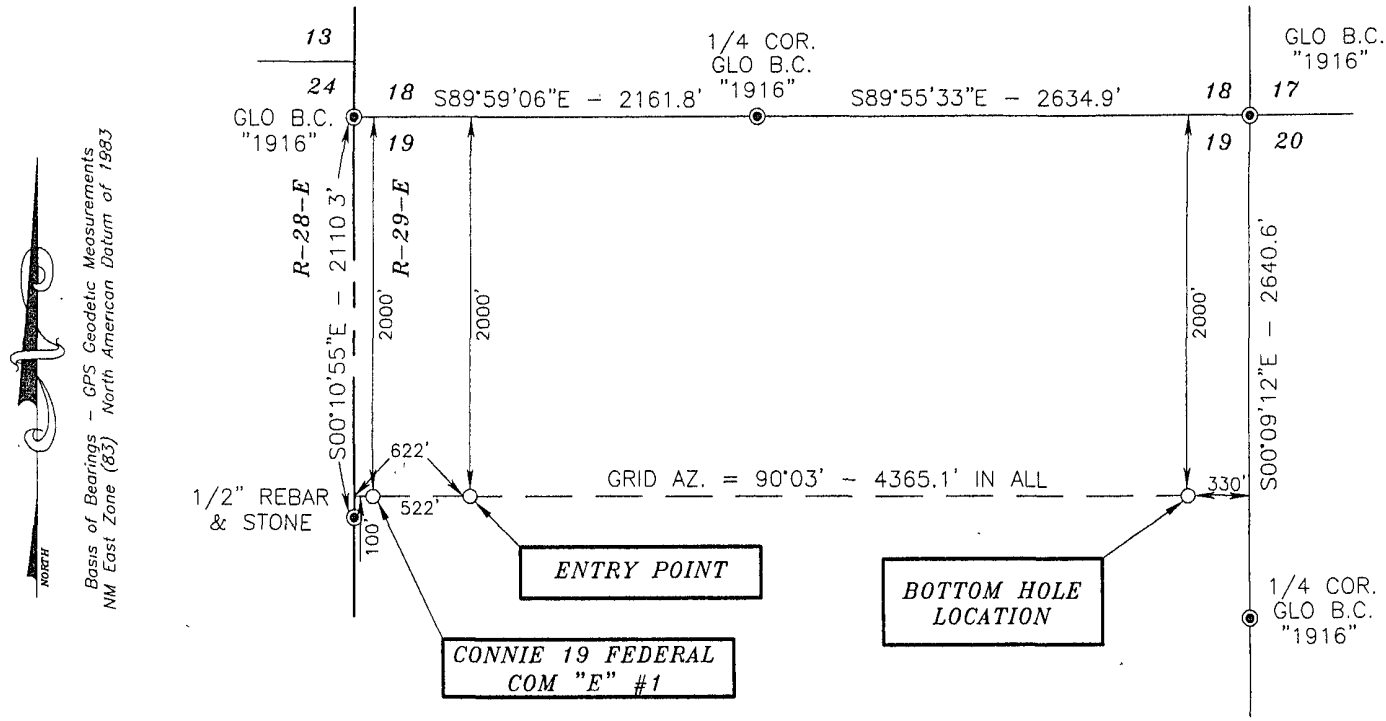
Point of Entry:

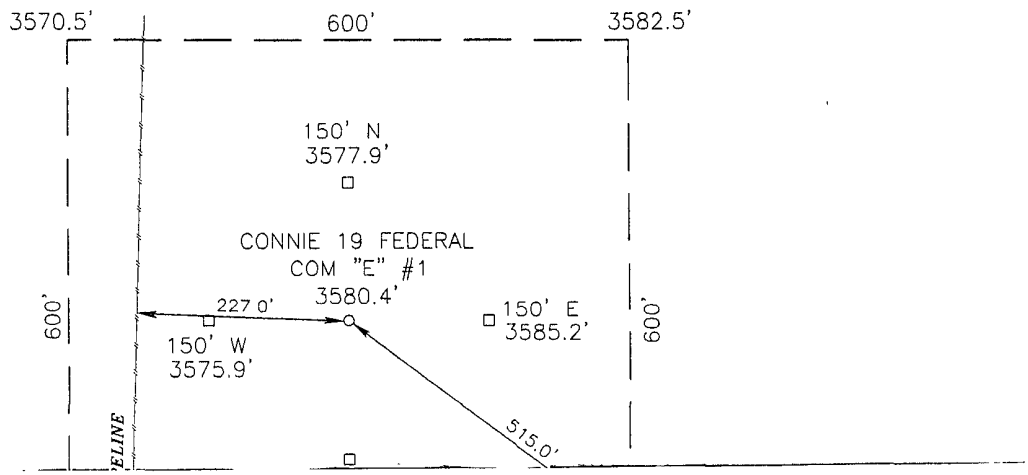
7220' MD, 6879' TVD
2000' FNL & 622' FWL
(0' North & 522' East of Surface)

Total Depth: 10,976' MD, 6979' TVD
2000' FNL and 330' FEL (H)
(0' North & 4297' East of Surface)

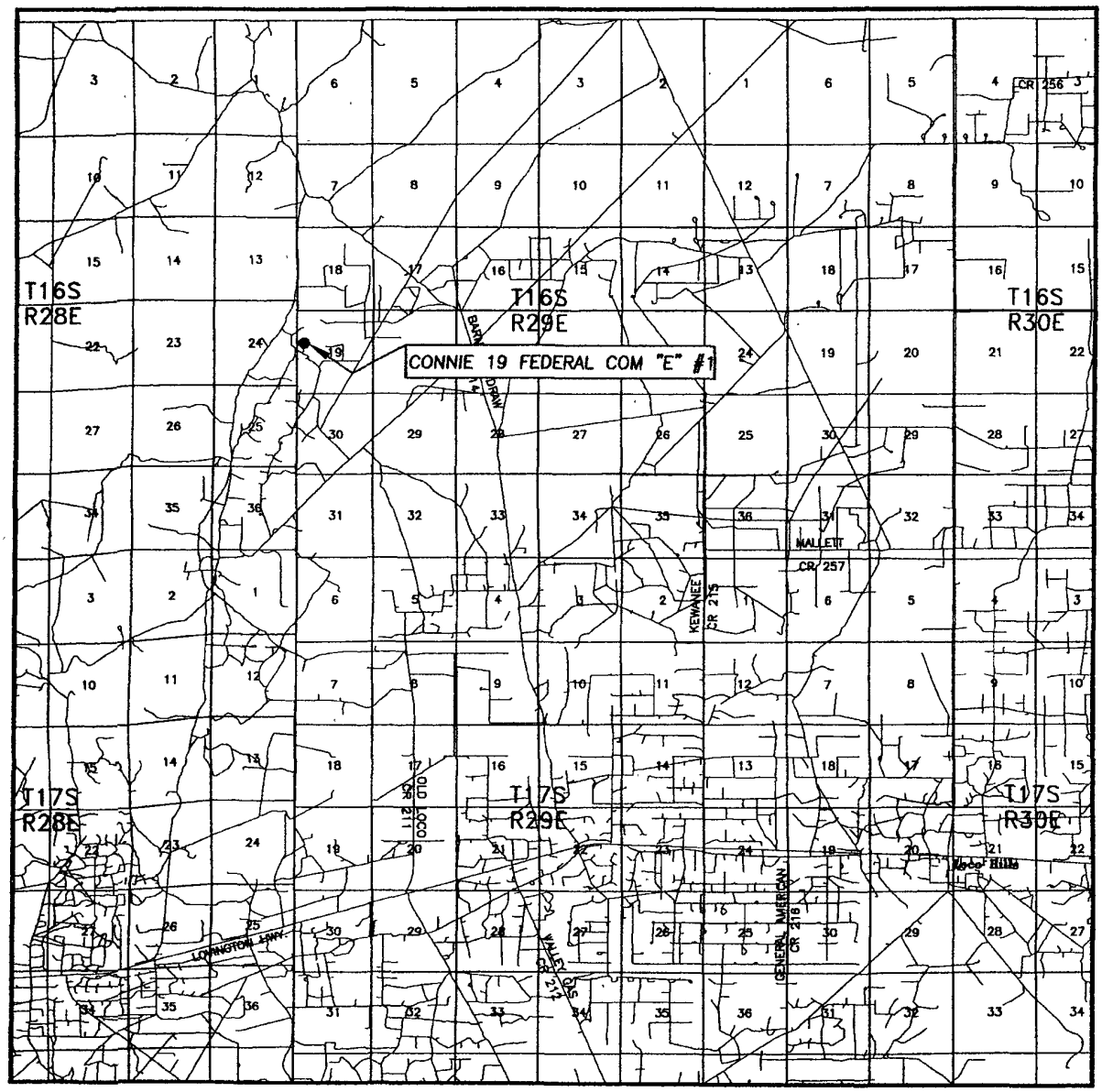
Exhibit "B"

SECTION 19, TOWNSHIP 16 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY NEW MEXICO





VICINITY MAP



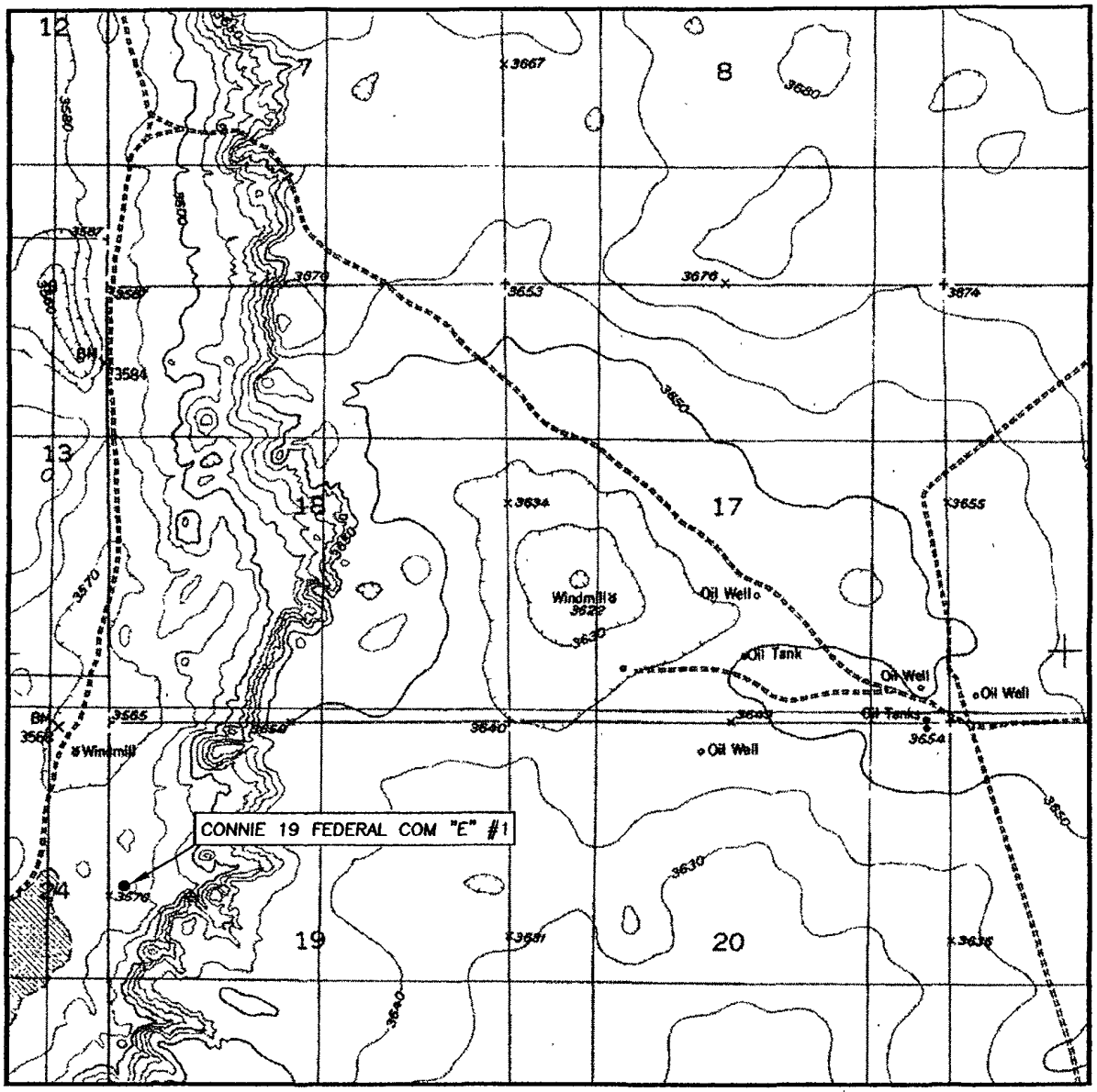
SEC. 19 TWP. 16-S RGE. 29-E
SURVEY N.M.P.M.
COUNTY EDDY
DESCRIPTION 2000' FNL & 100' FWL
ELEVATION 3580.4'
OPERATOR ST. MARY LAND & EXPLORATION COMPANY
LEASE CONNIE 19 FEDERAL COM "E" #1

SCALE: 1" = 2 MILES

Asel Surveying

P.O. BOX 393 - 310 W. TAYLOR
HOBBS, NEW MEXICO - 505-393-9146

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'

SEC. 19 TWP. 16-S RGE. 29-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 2000' FNL & 100' FWL

ELEVATION 3580.4'

OPERATOR ST. MARY LAND & EXPLORATION COMPANY

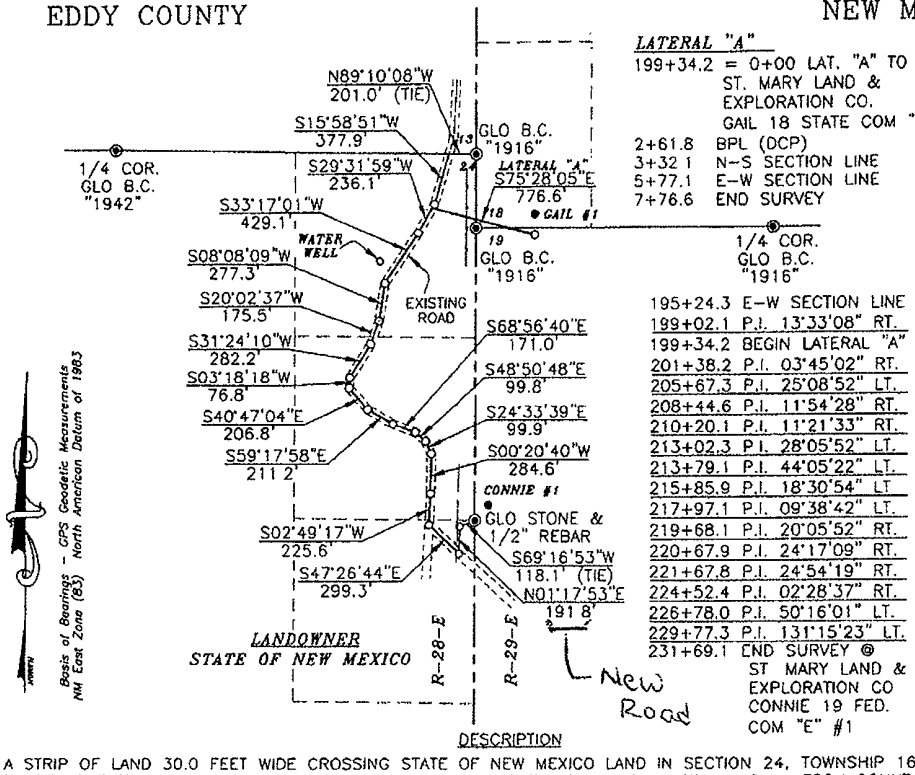
LEASE CONNIE 19 FEDERAL COM "E" #1

U.S.G.S. TOPOGRAPHIC MAP
BASIN WELL, N.M.

Asel Surveying

P.O. BOX 393 - 310 W. TAYLOR
HOBBS, NEW MEXICO - 505-393-9146

SECTION 24, TOWNSHIP 16 SOUTH, RANGE 28 EAST, N.M.P.M., SECTIONS 18 & 19, TOWNSHIP 16 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY NEW MEXICO



LATERAL "A"

199+34.2 = 0+00 LAT. "A" TO THE ST. MARY LAND & EXPLORATION CO. GAIL 18 STATE COM "M" #1
2+61.8 BPL (DCP)
3+32.1 N-S SECTION LINE
5+77.1 E-W SECTION LINE
7+76.6 END SURVEY

195+24.3 E-W SECTION LINE
199+02.1 P.I. 13°33'08" RT.
199+34.2 BEGIN LATERAL "A"
201+38.2 P.I. 03°45'02" RT.
205+67.3 P.I. 25°08'52" LT.
208+44.6 P.I. 11°54'28" RT.
210+20.1 P.I. 11°21'33" RT.
213+02.3 P.I. 28°05'52" LT.
213+79.1 P.I. 44°05'22" LT.
215+85.9 P.I. 18°30'54" LT.
217+97.1 P.I. 09°38'42" LT.
219+68.1 P.I. 20°05'52" RT.
220+67.9 P.I. 24°17'09" RT.
221+67.8 P.I. 24°54'19" RT.
224+52.4 P.I. 02°28'37" RT.
226+78.0 P.I. 50°16'01" LT.
229+77.3 P.I. 131°15'23" LT.
231+69.1 END SURVEY @ ST MARY LAND & EXPLORATION CO CONNIE 19 FED. COM "E" #1

DESCRIPTION

A STRIP OF LAND 30.0 FEET WIDE CROSSING STATE OF NEW MEXICO LAND IN SECTION 24, TOWNSHIP 16 SOUTH, RANGE 28 EAST AND SECTIONS 18 & 19, TOWNSHIP 16 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO AND BEING 15.0 FEET LEFT AND 15.0 FEET RIGHT OF THE FOLLWING DESCRIBED CENTERLINE SURVEY.

BEGINNING AT A POINT ON THE NORTH LINE OF SAID SECTION 24 WHICH LIES N89°10'08"W – 201.0 FEET FROM THE NORTHEAST CORNER OF SAID SECTION 24; THEN S15°58'51"W – 377.9 FEET; THEN S29°31'59"W – 236.1 FEET; THEN S33°17'01"W – 429.1 FEET, THEN S08°08'09"W – 277.3 FEET; THEN S20°02'37"W – 175.5 FEET; THEN S31°24'10"W – 282.2 FEET; THEN S03°18'18"W – 76.8 FEET; THEN S40°47'04"E – 206.8 FEET, THEN S59°17'58"E – 211.2 FEET; THEN S68°56'40"E – 171.0 FEET; THEN S48°50'48"E – 99.8 FEET; THEN S24°33'39"E – 99.9 FEET; THEN S00°20'40"W – 284.6 FEET, THEN S02°49'17"W – 225.6 FEET; THEN S47°26'44"E – 299.3 FEET; THEN N01°17'53"E – 191.8 FEET TO A POINT WHICH LIES S69°16'53"W – 118.1 FEET FROM THE EAST QUARTER CORNER OF SAID SECTION 24.

SAID STRIP OF LAND BEING 3644.8 FEET OR 220.90 RODS IN LENGTH, CONTAINING 2.510 ACRES OF LAND MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS.

NE/4 NE/4 87.22 RODS OR 0.991 ACRES
SE/4 NE/4 101.73 RODS OR 1.156 ACRES
NE/4 SE/4 31.95 RODS OR 0.363 ACRES

LATERAL "A"

BEGIN AT STATION 199+34.2 ON MAIN ROAD; THEN S75°28'05"E – 776.6 FEET TO THE GAIL 18 STATE COM "M" #1.

SAID STRIP OF LAND BEING 776.6 FEET OR 47.07 RODS IN LENGTH, CONTAINING 0.535 ACRES OF LAND MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SECTION 24
NE/4 NE/4 20.13 RODS OR 0.229 ACRES
SECTION 18
SW/4 SW/4 14.85 RODS OR 0.169 ACRES
SECTION 19
NW/4 NW/4 12.09 RODS OR 0.137 ACRES

TERRY J. ASEL NEW MEXICO 15079 REGISTERED PROFESSIONAL LAND SURVEYOR

LEGEND

DENOTES FOUND MONUMENT AS NOTED

0 1000' 2000' FEET
SCALE: 1"=1000'

SURVEYORS CERTIFICATE

I, TERRY J. ASEL, NEW MEXICO PROFESSIONAL SURVEYOR NO. 15079, DO HEREBY CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND MEETS THE "MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO" AS ADOPTED BY THE NEW MEXICO STATE BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS AND SURVEYORS.

Terry J. Asel 4/23/2008
Terry J. Asel N.M. R.P.S. No. 15079

Asel Surveying

P.O. BOX 393 – 310 W. TAYLOR
HOBBS, NEW MEXICO – 575-393-9146

ST. MARY LAND & EXPLORATION CO.		
SURVEY FOR A ROAD EASEMENT CROSSING STATE OF NEW MEXICO LAND IN SECTION 24, TOWNSHIP 16 SOUTH, RANGE 28 EAST AND SECTIONS 18 & 19, TOWNSHIP 16 SOUTH, RANGE 29 EAST, N.M.P.M., EDDY COUNTY, NEW MEXICO		
Survey Date: 03/31/08	Sheet 6 of 6 Sheets	
W.O. Number: 080331RD	Drawn By: KA	
Date: 04/22/08	080331RD.DWG	Scale:1"=1000'

Drilling Plan

(Supplement to BLM 3160-3)

St. Mary Land & Exploration Company (154903)
Connie 19 Fed Com E, Well #1
SL: 2000' FNL & 100' FWL (E); BHL: 2000' FNL & 330' FEL (H)
Section 19, T16S, R29E, Eddy County, New Mexico

1. The geologic surface formation is quaternary .

2. Name and estimated tops of **geologic markers**; water, oil or gas:

Yates	561'	Oil/Gas
Seven Rivers	706'	Oil
Queen	1298'	Oil
Penrose	1476'	Oil
Grayburg	1698'	Oil
Glorieta	2535'	Oil
Tubb	4790'	Oil
Abo	5545'	Oil/Gas
Top of Dolomite Porosity	6740'	
Wolfcamp Marker	6860'	Oil/Gas
Dolomite Porosity Marker	6879'	
Pilot Hole TD	6980'-7200'	

3. No other **formations**, other than the targeted Wolfcamp is anticipated to give up oil, gas or fresh water in measureable quantities. Surface fresh water sands will be protected by setting 13 3/8" casing @ 320' and circulating cement back to surface.

4. **Specifically the casing string referenced in #3 above will consist of the following:**

Surface: 13 3/8" OD, 48#/ft, H-40, STC, new pipe @ 320'+/- in 17 1/2" hole.
Burst: 1730 psi; Collapse: 740 psi; Tension: 322,000#
Intermediate: 9 5/8" OD, 40# J55, BTC casing, new pipe @ 2400' +/- , 12 1//4" hole.
Burst: 3950 psi; Collapse: 2570 psi; Tension: 714000#
Production: 5.50" OD, 17#/ft, J55, LTC, new pipe @ 10,976'+/- in 8 3/4" hole.
Burst: 7740 psi; Collapse: 6290 psi; Tension: 348000#

Cementing programs for the above casing strings are:

Surface: 250 sx - Lead: Premium Lite +2% CaCl2 mixed @ 12.5 ppg & 1.94 ft3/sx, tail w/PP + 2% CaCl2 mixed @ 14.8 ppg & 1.34 ft3/sx.

The above volume represents 50% excess over calculated hole volume, and will be adjusted to actual setting depth of casing. The slurries will be preceded by a fresh water spacer, and displaced with brine water.

See attached e-mail for cement program

April 7, 2008

St. Mary Land & Exploration Company
Connie 19 Federal Com E, Well #1; 2000' FNL & 1000' FWL
Section 19, T15S, R29E, Eddy County, NM

3162.4, 3/28/2008

RE: Safety Factors, Drilling Plan, Additional Information

Safety Factors are as follows:

Surface Casing:

Burst	**1.8**
Collapse	**5.0**
Tension	**21.0**

Intermediate Casing:

Burst	**1.8**
Collapse	**2.3**
Tension	**7.4**

Production Casing:

Burst	**1.2**
Collapse	**2.0**
Tension	**3.0**

"Brennan Short"
<bshort@stmaryland.com>
06/06/2008 11:27 AM

To <Wesley_Ingram@nm.blm.gov>
cc "Donna Huddleston" <dhuddleston@stmaryland.com>
bcc
Subject Connie 19 fed Com E #1 - Question Answers

Wesley,

Listed below are the answers to your questions on the APD:

Production casing should be 5 ½' 17# N-80 LTC casing.

Cement will be as follows:

Surface – Tail w/ 250 sx @ 14.8 ppg & 1.34 ft3/sx yield.
Intermediate – Lead w/ 350 sx @ 11.5 ppg & 2.76 ft3/sx yield. Tail w/ 200 sx @ 14.8 ppg & 1.32 ft3/sx yield.
Production – Lead w/ 1000 sx @ 11.9 ppg & 2.45 ft3/sx yield. Tail w/ 900 sx @ 13.0 ppg & 1.67 ft3/sx yield.

We will be drilling a pilot hole. The pilot hole will be plugged back from the proposed TD of 6980 ft to the proposed kick off point at 6300 ft with two 500 ft cement plugs. The first cement plug will be 200 sx @ 13.0 ppg & 1.67 ft3/sx yield. The second cement plug will be 300 sx @ 17.0 ppg & 1.00 ft3/sx yield.

Feel free to give me a call if you have any additional questions.

Brennan D. Short
St. Mary Land & Exploration Company
Drilling Engineer
Permian Region
432-688-1788

Intermediate: 500 sx - lead slurry Cl C + l/4# flocele mixed @@ 11.5 ppg & 2.76 ft3/sx; tail w/PP mixed @ 14.8 ppg & 1.32 ft3/sx.

Production: 1500 sx – lead slurry Cl C mixed @ 11.5 ppg & 2.78 ft3/sx, tail w/Cl H +0.5% Halad R-344 + 0.4% CFR-3 + 0.3% HR-7 + 1 pps salt, mixed @ 13 ppg & 1.67 ft 3/sx.

The above are calculated 50% excess volume - actual volumes will be adjusted to the open hole caliper of this wellbore. The cement slurries will be preceded by 12+ bbls cement wash for mud removal and displaced with fresh water.

5. **The well control equipment** to be employed during the drilling of this well is as illustrated on attached BOP diagram. This equipment includes a pipe and blind rams, an annular preventer and a choke manifold of comparable pressure rating. Equipment will be rated for a minimum of 3000 psi, and will be tested to 80% of that pressure rating prior to drilling out of the 13 3/8"surface casing.

See COA

Wear rign to be properly installed in head.
Blow out preventer and all fittings must be in good condition, 3000 psi WP minimum.
All fittings to be flanged.
Safety valve must be available on rig floor at all times with proper connections, valve to be full bore 3000 psi. WP minimum.
All choke and fill lines to be securely anchored especially ends of choke lines.
Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through.
Kelly cock on Kelly.
Extension wrenches and hand wheels to be properly installed.
Blow out preventer control to be located as close to driller's position as feasible.
Blow out preventer closing equipment to include minimum 40 gallon accumulator, two independent sources of pump power on each closing unit installation, and meet all API specifications.
The BOPE testing will occur upon each trip to run each casing string, more frequently if necessary.

6. It is anticipated that this well will be drilled to TD utilizing the fluids shown below:

0-320': Fresh Water; 8.6-8.9 ppg; 28-34 vis; Waterloss-N.C.
320-2400': Saturated Brine; 10 ppg, 29 vis; WL – NC
2400-10,976' MD: FW/Cut Brine, 8.4-9.0 ppg, 29 vis; WL-NC

7. Auxiliary equipment will include an upper kelly cock valve, safety valve to fit drill pipe and pressure gauges (as above).

8. No drill stem testing or coringis planned for this wellbore.

Electric logging will consist of GR-Dual Laterlog-MSFL and GR-Compenstated Density-Neutron from TD to surface casing and/or surface.

9. The estimated bottom hole temperature (BHT) at TD is 165 degrees F with an estimated maximum bottom hole pressure (BHP) at total depth of 5000 psig. No hydrogen sulfide or other hazardous gases or fluids have been encountered, reported or are known to exist at this depth in this area. No major loss circulation zones have been reported in offsetting wells.

10. It is estimated that this well will be drilled and cased in 16-30 days. Drilling will commence as soon after approval is received and services can be contracted. If the well is production, an additional estimated 30-60 days will be required for completion and testing before a decision is made to install permanent facilities.

ATTACHMENTS: BOP; RIG LAYOUT, DRILLING PLAN SUMMARY, HORIZONTAL DATA

DRILLING PLAN

PROSPECT/FIELD	WolfBo	**COUNTY/STATE**	Eddy County, New Mexico
OWNERS	St. Mary Land & Exploration		
WELL NO.	Connie 19 Fed Com E #1	**LEASE**	
LOCATION	SWNW 19 -16S- 29E Surface Location.	2000' FNL	100' FWL
EST. T.D.	10,976 ' MD 6,979 ' TVD	**GROUND ELEV.**	3,580' (est) ungraded
	Total Lateral: 3,776 ft		

PROGNOSIS: Based on 3,600' KB(est)

MARKERS	DEPTH	DATUM
Yates	561	3,039
Seven Rivers	706	2,894
Queen	1,298	2,302
Penrose	1,476	2,124
Grayburg	1,698	1,902
San Andres	1,942	1,658
Glorieta	2,535	1,065
Tubb	4,790	(1,190)
Abo	5,545	(1,945)
Top Of Dolomite Porosity	6,740	(3,140)
Wolfcamp Marker	6,860	(3,260)
Dolomite Porosity Target	6,879	(3,279)
Pilot Hole TD	6,980	(3,380)

LOGS:

Type	Interval
Surface	None
Production	*Quad Combo to Int. Csg. GR/Neu to surf*
CBL	Optional

DEVIATION:

Surf. 2 deg. max., 1 deg / 100'; survey @ TD.
Prod: 3 deg max., 1 deg / 100'; survey every 500'

DST'S: None Planned

← Target Producing Pool

CORES: None Planned

SAMPLES:

Mudlogging:
One-Man:
Two-Man: Intermediate casing point to TD.

BOP:

13 5/8" 3M psi Blind, Pipe & Annular

See COA

Dip Rate: 2.2 ft/100 ft DOWN dip

Max. Anticipated BHP:

Surface Formation:

MUD:

Interval	Type	WT	Vis	WL	Remarks
0' - 320'	Native	8.6 - 8.9	28-34	NC	Circ Reserve
320' - 2,400'	Saturated Brine	10 0	29	NC	Circ Reserve
2,400' - 10,976'	FW / Cut Brine	8.4 - 9.0	29	NC	Circ Reserve

CASING:

	Size	Wt ppf	Hole	Depth		Cement	WOC	Remarks
Surface:	13 5/8	48	17 1/2	320'		250 sx	4 hrs	TOC @ Surface
Intermediate:	9 5/8	40	12 1/4	2,400'		500 sx	4 hrs	TOC @ Surface
Production:	5 1/2	17	8 3/4	10,976'	N-80	1,500 sx		TOC @ 2000 ft

PROBABLE PLUGS, IF REQ'D:

	Depth	Cement	WOC
Plug Back Cmt Plug for Horizontal Kick Off	6000' - 6500'	200 sx	24 hrs

OTHER: Build Rate(per 100'): 10.0

	MD	TVD	FNL/FSL	FEL/FWL	S-T-R	AZI
Surface:	N/A	N/A	2000' FNL	100' FWL	19-16S-29E	N/A
KOP:	6,300'	6,300'	2000' FNL	100' FWL	19-16S-29E	90.0
Point Of Entry (90 deg):	7,200'	6,879'	2000' FNL	622' FWL	19-16S-29E	90.0
TD:	10,976'	6,979'	2000' FNL	330' FEL	19-16S-29E	90.0

Comments:

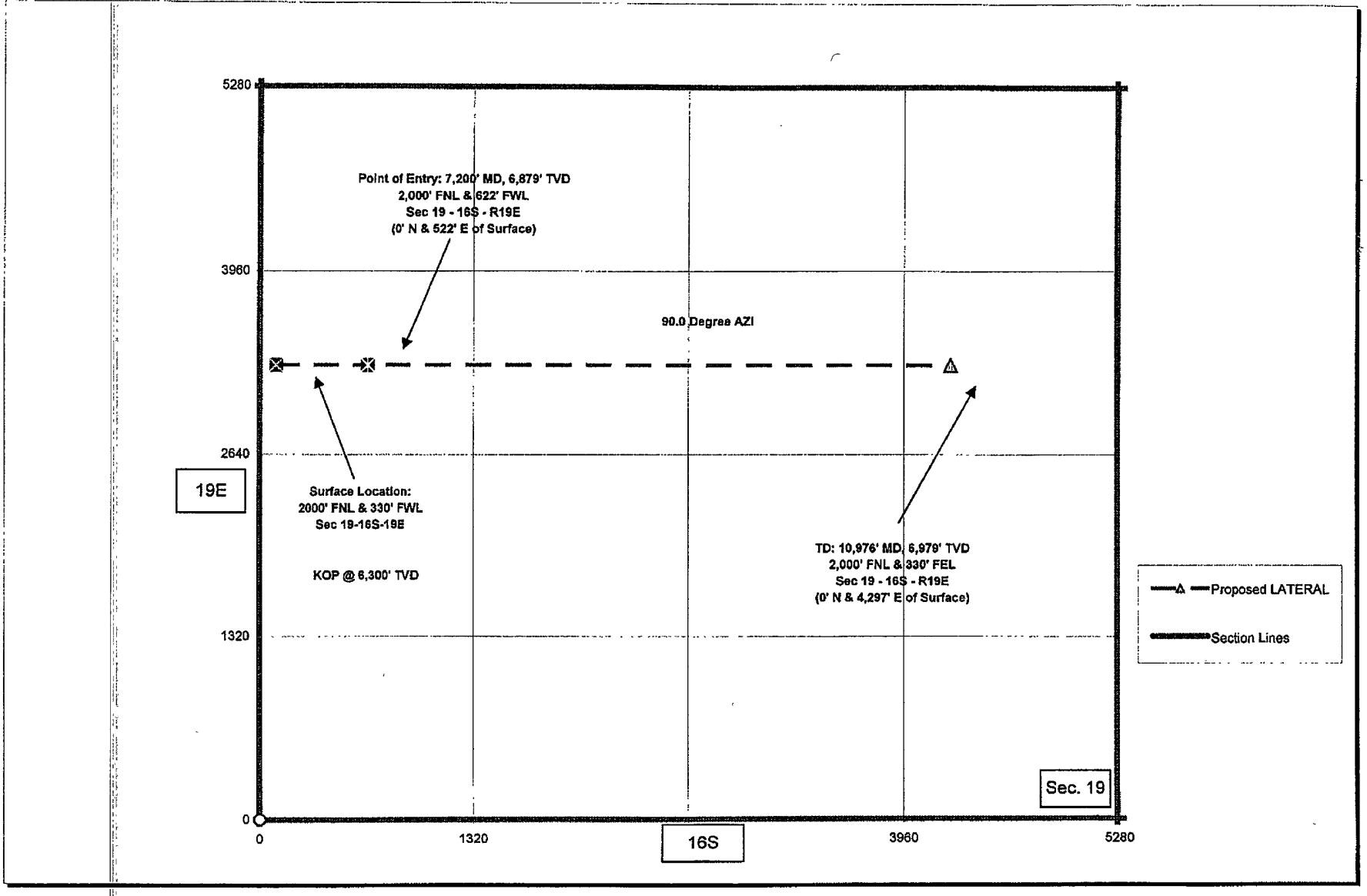
MWD Surveys will be taken every 30' while building curve and every 90' while drilling lateral.

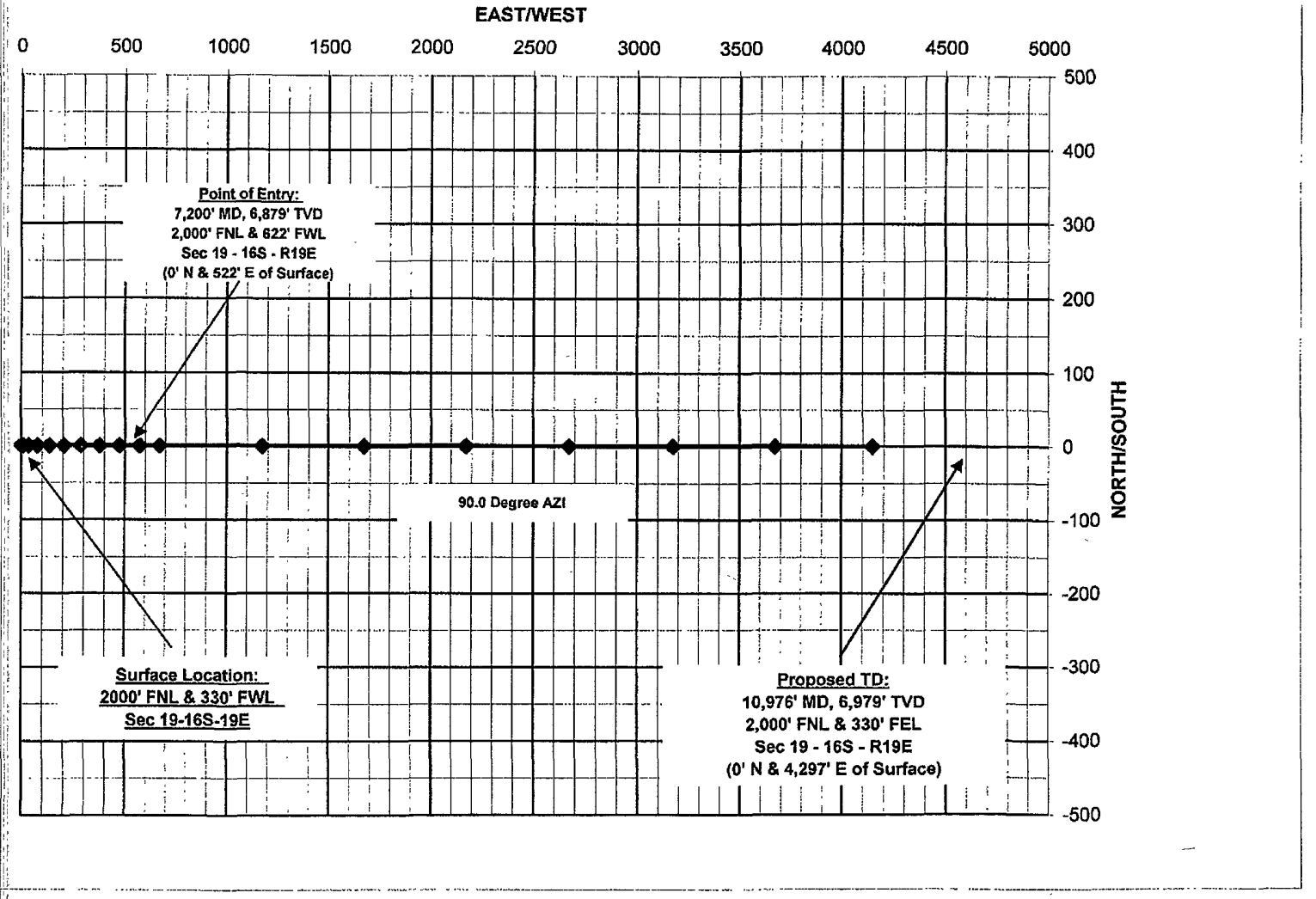
Prep By: B. D. Short **Date:** 4/7/2008 **Doc:**

Connie 19 Fed Com E #1			TARGET TVD SHEET	6879.00		SURFACE	3280	100
SWNW 19 -16S- 29E			TARGET INCLINATION =	87.00		Casing Point	3280	672
10,976 ' MD	6,979' TVD		PROPOSED AZM.=	90.00		Way Point #1	3280	672
TOTAL LATERAL:		3,776'	MWDSPACING	36.00		Projected TD	3280	4247
			BUILD RATE=	10.00				

DEPTH	INC.	AZM	CL	T.V.D.	V.S.	N/S	E/W	N/S from Surface	E/W from Surface
500			500	500.00					
1000			500	1,000.00					
1500			500	1,500.00					
2000			500	2,000.00					
2500			500	2,500.00					
3000			500	3,000.00					
3500			500	3,500.00					
4000			500	4,000.00					
4500			500	4,500.00					
5000			500	5,000.00					
5500			500	5,500.00					
6000			500	6,000.00		3280.00	100.00		
6300		90.0	300	6,300.00		3280.00	100.00		
6400	10.0	90.0	100	6399.49	8.7	3280.00	108.68		8.68
6500	20.0	90.0	100	6495.96	34.5	3280.00	134.49		34.49
6600	30.0	90.0	100	6586.48	76.6	3280.00	176.63		76.63
6700	40.0	90.0	100	6668.29	133.8	3280.00	233.84		133.84
6800	50.0	90.0	100	6738.91	204.4	3280.00	304.36		204.36
6900	60.0	90.0	100	6796.20	286.1	3280.00	386.06		286.06
7000	70.0	90.0	100	6838.40	376.5	3280.00	476.46		376.46
7100	80.0	90.0	100	6864.25	472.8	3280.00	572.80		472.80
7200	90.0	90.0	100	6872.96	572.2	3280.00	672.17		572.17
7300	88.7	90.0	100	6856.80	473.8	3280.00	573.85		473.85
7400	88.7	90.0	100	6874.09	572.1	3280.00	672.12		572.12
7500	88.7	90.0	100	6874.09	672.2	3280.00	772.16		672.16
8000	88.7	90.0	500	6868.15	1172.0	3280.00	1272.03		1172.03
8500	88.7	90.0	500	6885.43	1671.9	3280.00	1771.90		1671.90
9000	88.7	90.0	500	6885.44	2171.8	3280.00	2271.77		2171.77
9500	88.7	90.0	500	6879.49	2671.6	3280.00	2771.64		2671.64
10000	88.7	90.0	500	6896.78	3171.5	3280.00	3271.51		3171.51
10500	88.7	90.0	500	6896.78	3671.4	3280.00	3771.38		3671.38
10976	88.7	90.0	476	6890.29	4147.3	3280.00	4247.26		4147.26

CONNIE 19 FED COM E #1
SWNW SEC 19 TWN 16S - R19E
EDDY CO, NM




EAST/WEST
0
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
500
400
300
200
100
0
-100
-200
-300
-400
-500
NORTH/SOUTH
Point of Entry:
7,200' MD, 6,879' TVD
2,000' FNL & 622' FWL
Sec 19 - 16S - R19E
(0' N & 522' E of Surface)
90.0 Degree AZI
Surface Location:
2000' FNL & 330' FWL
Sec 19-16S-19E
Proposed TD:
10,976' MD, 6,979' TVD
2,000' FNL & 330' FEL
Sec 19 - 16S - R19E
(0' N & 4,297' E of Surface)

Connie 19 Fed Com E #1
Sec 19 Twn 16S R 19E
Vertical Section vs TVD

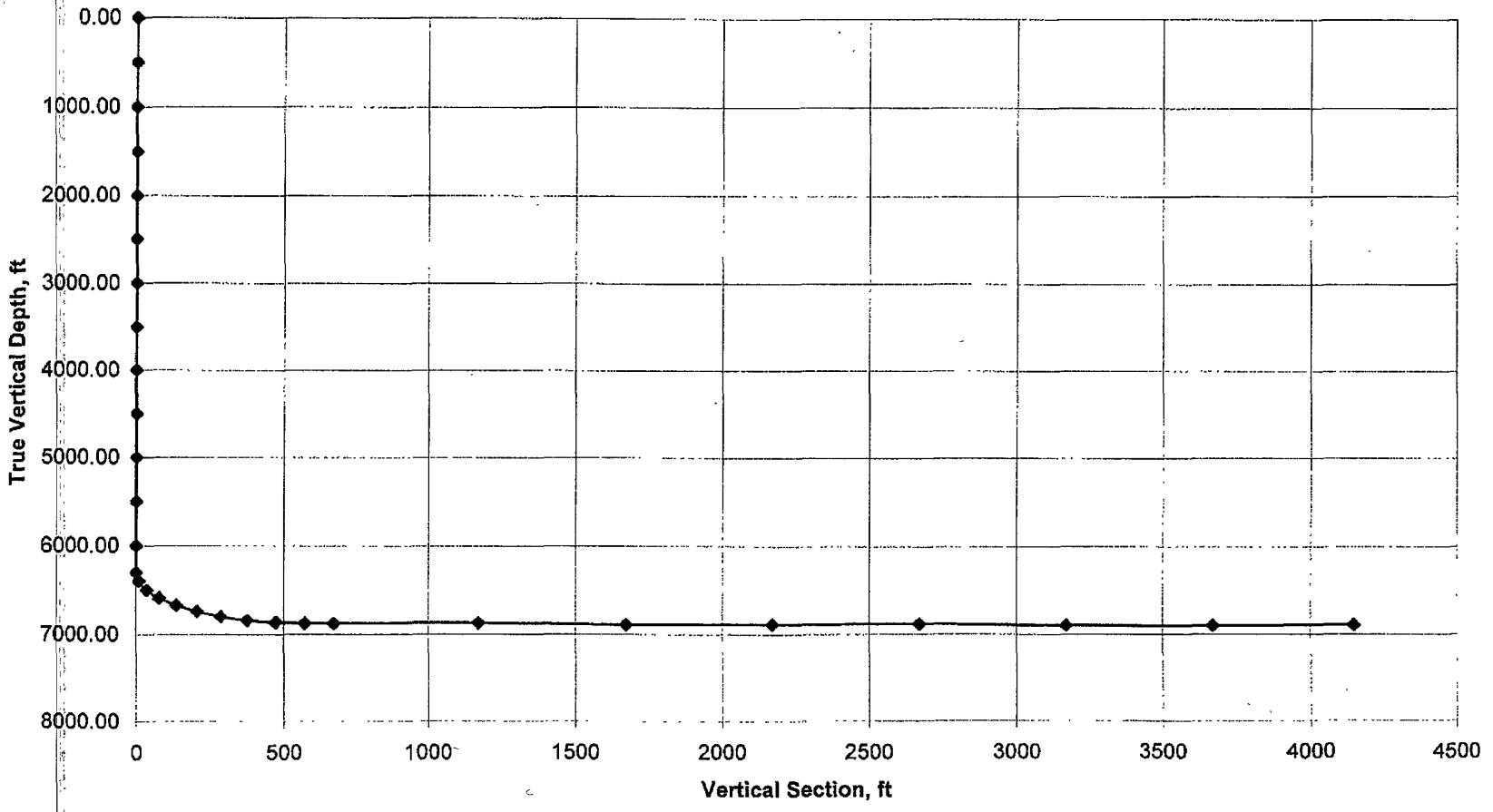
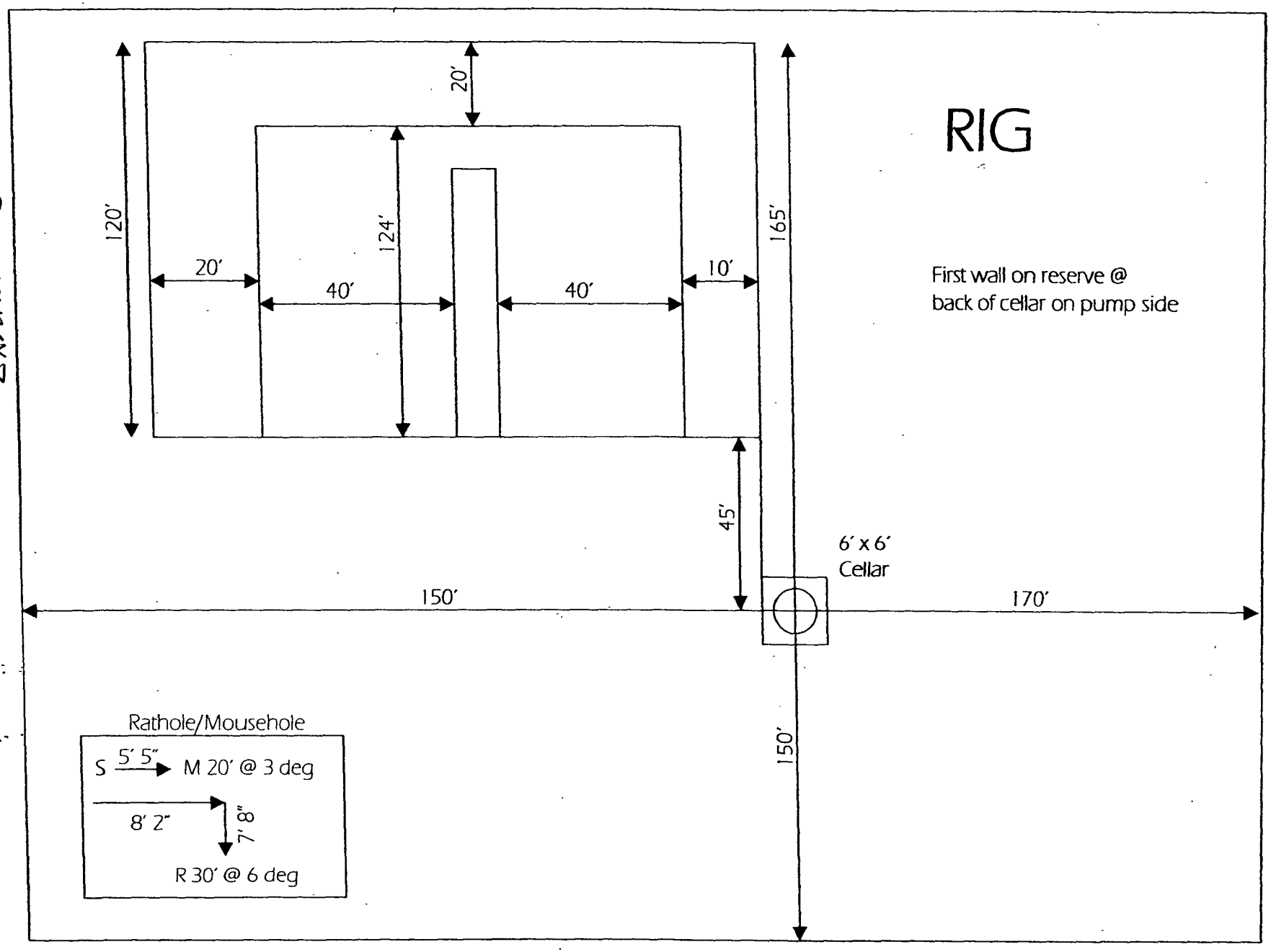
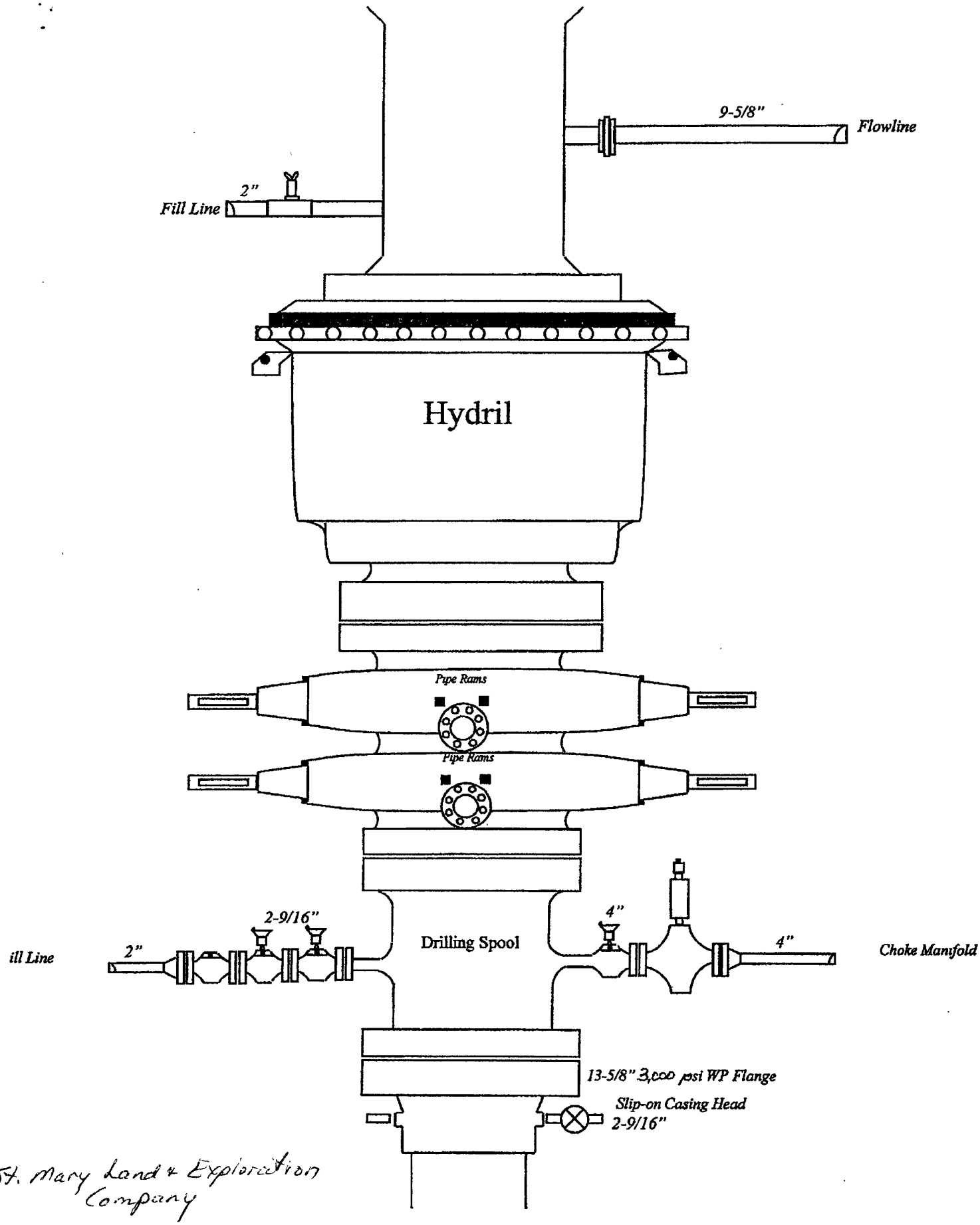


Exhibit "C"

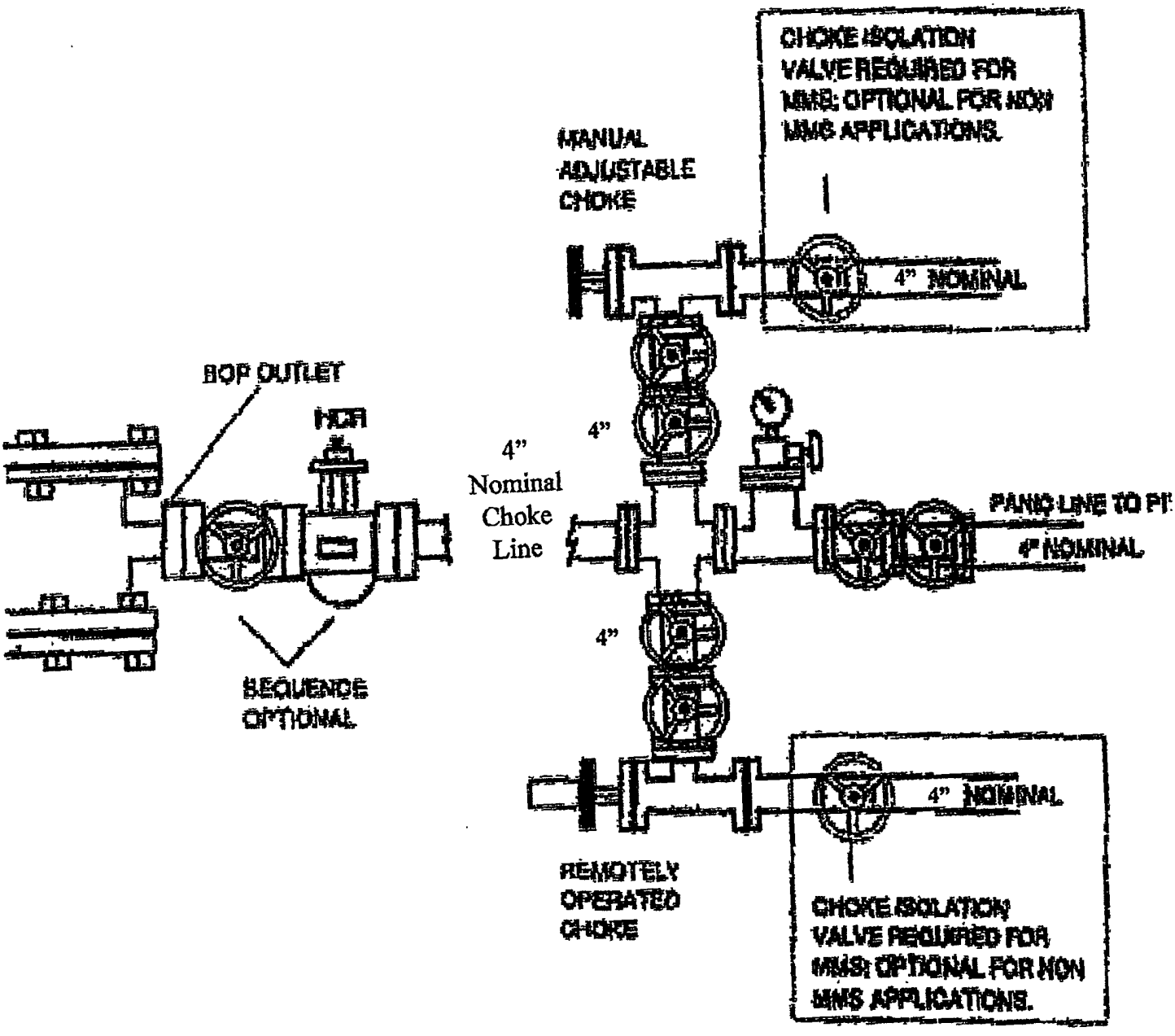

RIG
First wall on reserve @
back of cellar on pump side
20'
120'
124'
20'
40'
40'
10'
165'
45'
6' x 6'
Cellar
150'
170'
150'
Rathole/Mousehole
S 5' 5" M 20' @ 3 deg
8' 2"
7' 8"
R 30' @ 6 deg

SR & A



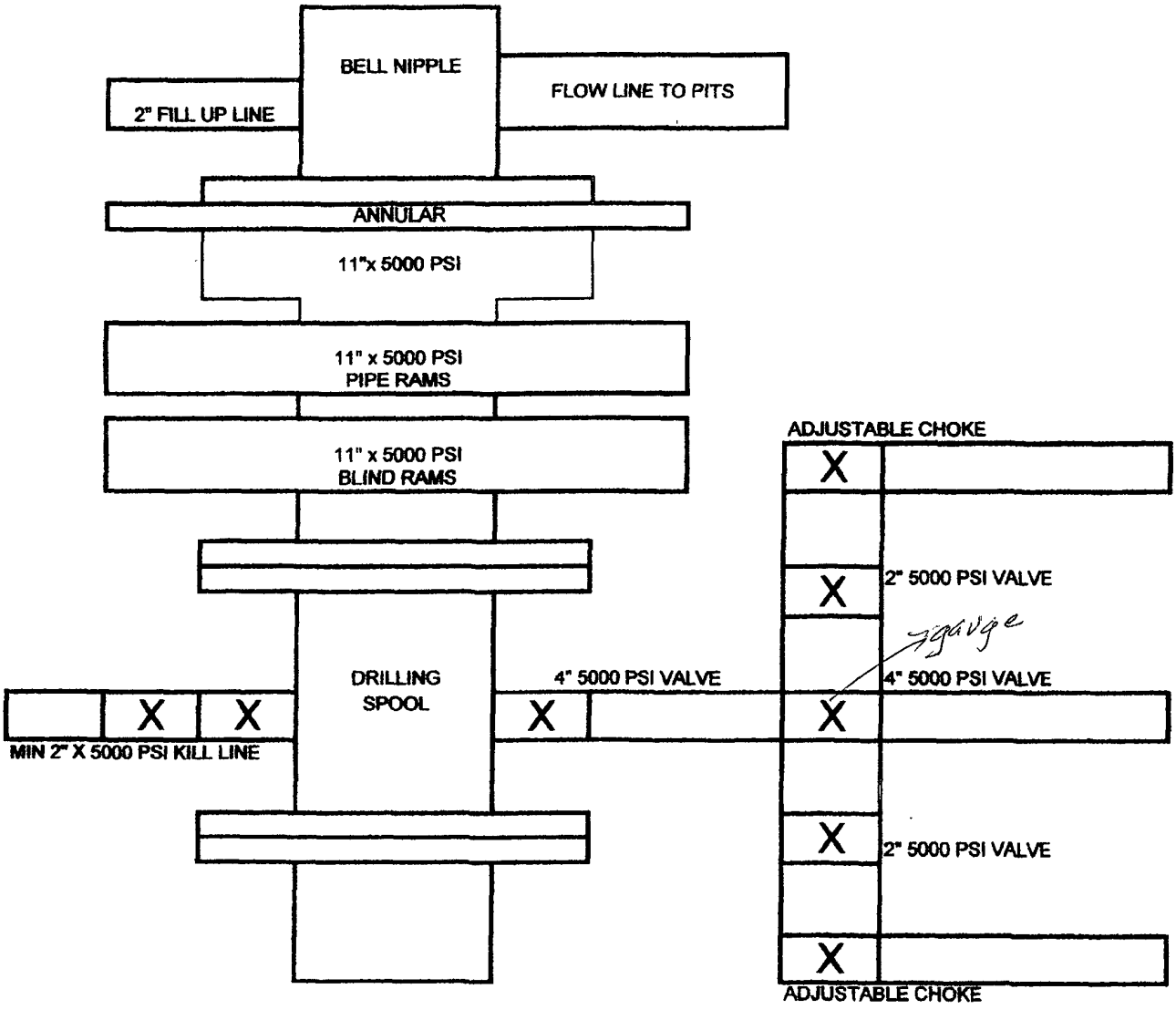
St. Mary Land & Exploration Company

DRILLING OPERATIONS
CHOKE MANIFOLD
5M SERVICE



St. Mary Land & Exploration Company

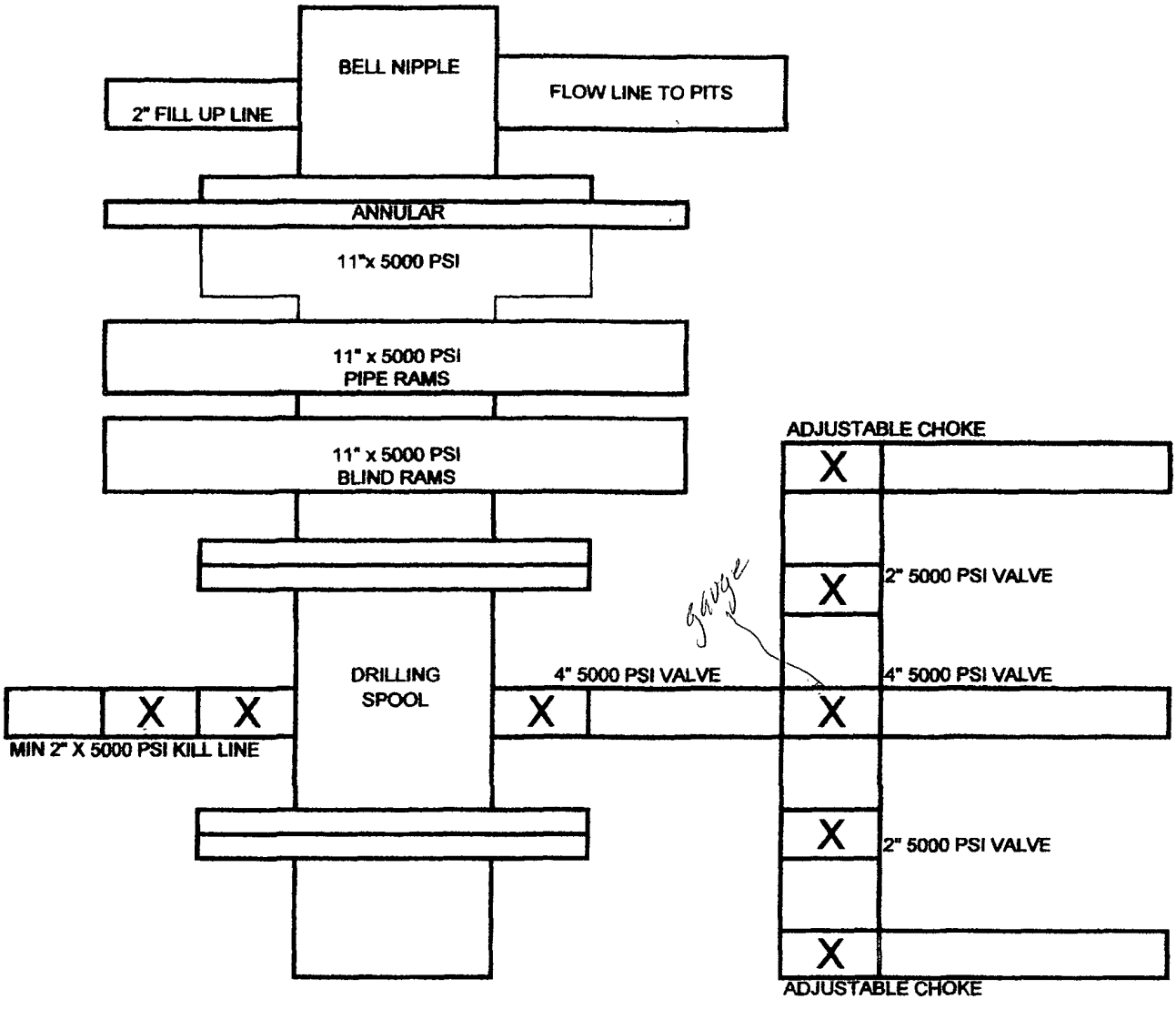
BOP SCHEMATIC FOR
12-1/4" HOLE



Eddy County, New Mexico

Exhibit

BOP SCHEMATIC FOR
8 3/4" HOLE



Eddy County, New Mexico

Exhibit

Thirteen Point Plan for Surface Use

(Additional data for form 3160-3)

St. Mary Land & Exploration Company

Connie 19 Fed Com E, Well #1

Section 19, T16S, R29E

SL: 2000' FNL & 100' FWL (E); BHL 2000' FNL & 330' FEL (H)

Field: Und. Crow Flats; Wolfcamp

Eddy County, NM

1. EXISTING ROADS - A "VICINITY MAP" and a "LOCATION VERIFCATION MAP" by Asel Surveying are attached which show the location of existing roads and the area topography.

   The road log to the location is as follows:

   From Loco Hills, NM travel West on Hwy 82 (Lovington Hwy) approximately 9.5 miles to CR 209. Turn right which is North & travel approx. 8.0 miles to new lease road. Turn right which is East and travel 0.5 on new lease road to staked location.

2. PLANNED ACCESS ROAD —Build approximately 2000' of new E/W access road to location as depicted on survey.

3. LOCATION OF EXISTING WELLS - EXHIBIT B shows the location of other wells within a mile radius of the proposed location.

4. LOCATION OF PROPOSED FACILITIES – This production well will be tied to new facilities built on location.

5. LOCATION AND TYPE OF WATER SUPPLY - All water (fresh or otherwise) needed for the drilling and completion of this well will be purchased from a commercial source and trucked to the location via the existing and proposed access road. No water source wells will be drilled, and no surface water will be utilized.

6. SOURCE OF CONSTRUCTION MATERIALS - Construction material (caliche) required for the preparation of the drill site is available from a local source. It is not anticipated that a significant amount of material will be required as the terrain is relatively flat. Transportation will be over the existing roads.

7. METHODS FOR HANDLING WASTE DISPOSAL -

Non degradable liner J. Amos 6-27-07

• Drill cutting will be disposed into drilling pits after fluids have evaporated. The drilling pits will be lined with a biodegradable plastic 20# liner, and buried as per Bureau of Land Management requirements. Pits will be located as per rig layout diagram.

• Receptacles for solid wastes (paper, plastic, etc) will be provided and equipped to prevent scattering by wind, animals, etc. This waste will be hauled to an approved landfill site.

• Any other waste generated by the drilling, completion, testing of this well will be removed from the site within 30 days of the completion of drilling or testing operations.

• A Porta-John will be provided for the crews. This will be properly maintained during the drilling operations and removed upon completion of the well.

8. ANCILLARY FACILITIES - The drilling, completion, and/or testing of this well will require no ancillary facilities.

9. WELLSITE LAYOUT - Attached, as EXHIBITS C is a diagram showing the anticipated orientation of the drilling rig and the pad.

10. PLANS FOR SURFACE RESTORATION - Reclamation of the surface location will be in accordance with the requirements set forth by the BLM. As stated earlier all waste generated by this operation will be disposed of in an approved manner, and the site restored as closely as possible to its pre-operation appearance. Due to the topography of the area no problems are anticipated in achieving this status and no erosion or other detrimental effects are expected as a result of this operation.

11. OTHER INFORMATION - The surface ownership of the drill site and the access routes are under the control/ownership of:

New Mexico State Land Office
P.O. Box 1148
Santa Fe, NM 87504-1148
Phone: (505) 827-5760

The site was archaeologically surveyed in March, 2008.

12. OPERATORS REPRESENTATIVE – St. Mary Land & Exploration Company, Bond Number **MT1022**.

St. Mary Land & Exploration is represented by:

Brennan Short, Drilling Engineer

(432) 688-1788; cell-432-528-7590

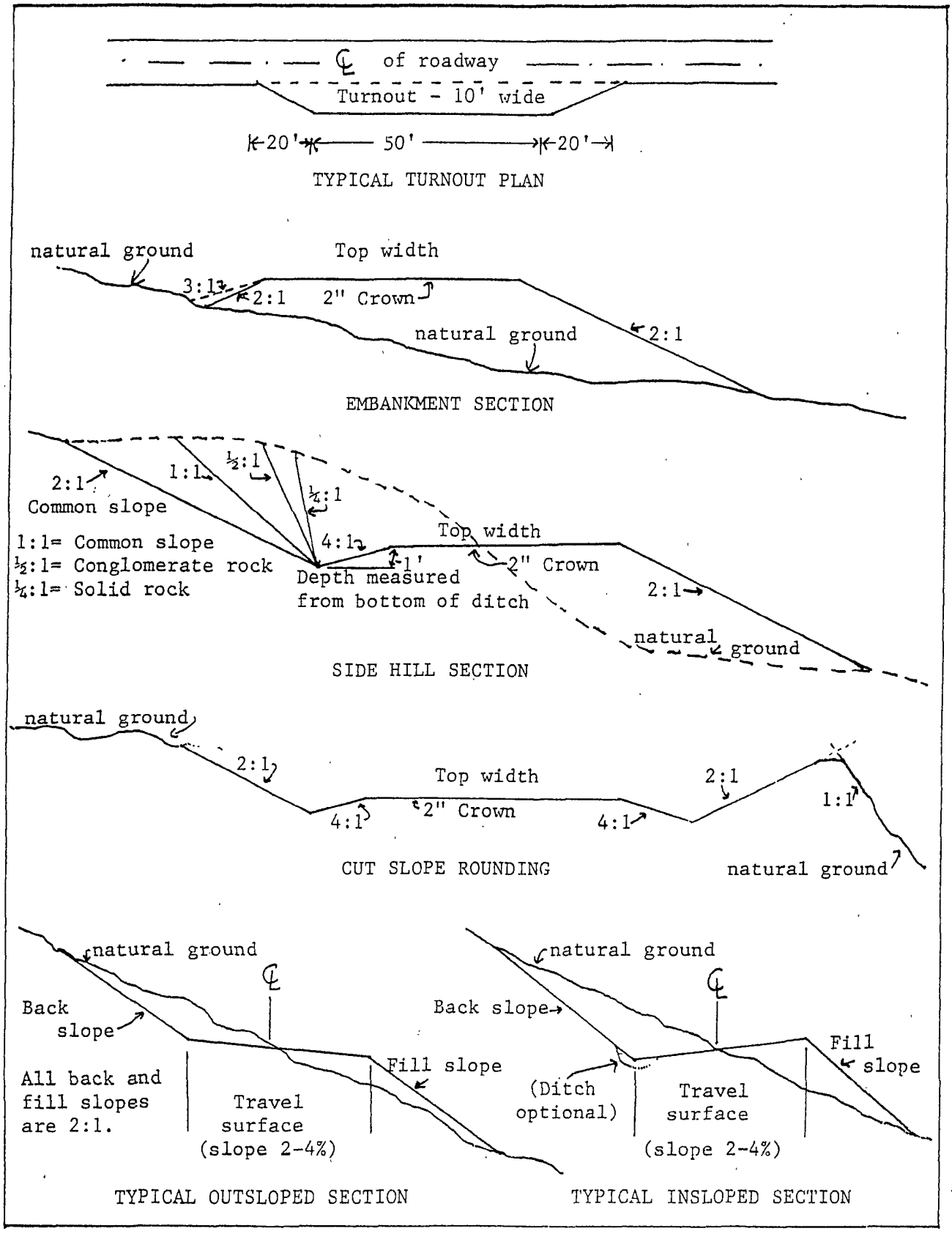
Operations Manager:

Tom Morrow

(432) 688-1773

REPRESENTATIVE OF BLM RESOURCE, AND HIGHER CLASS, ROADS. (Reference

(Travel way, top width, driving surface, and travel surface are synonomous.)



13. OPERATORS CERTIFICATION

I hereby certify that Brennan Short Drilling Engineer, has inspected the proposed drill site and access route and that I am familiar with the conditions that currently exist; that the statements made in the APD package are to the best of my knowledge true and correct; and that the work associated with operations and application, herein will be performed by St. Mary Land & Exploration Company and it's contractors and subcontractors in conformity with the terms and conditions of this APD package. I also certify responsibility for the operations conducted on that portion of the leased lands associated with this application with bond coverage being provided under a BLM nationwide bond.

This statement is: SEE ATTACHED SIGNED STATEMENT

Operator's Representative
St. Mary Land & Exploration Company
Connie 19 Fed Com E, Well #1
Eddy County, New Mexico

The field representative for assuring compliance with the approved use ad operations plan is as follows:

St. Mary Land & Exploration Co., 3300 N. A Street, Bldg. 7, Suite 200, Midland, TX
Bond Number 6041872

Representative:

Brennan Short
Drilling Engineer
Permian Region
bshort@stmaryland.com
(432) 688-1788 – office
(432) 528-7590 – cell
(432) 688-1776 – fax
(432) 218-9042 - home

Certification

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which currently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by St. Mary Land & Exploration Co. and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

Brennan D Short

Brennan Short
Drilling Engineer
June 10, 2008

PECOS DISTRICT
CONDITIONS OF APPROVAL

OPERATOR'S NAME:	St. Mary Land & Exploration Company
LEASE NO.:	NM109642
WELL NAME & NO.:	Connie 19 Fed. Com. E No. 1
SURFACE HOLE FOOTAGE:	2000' FNL & 100' FWL
BOTTOM HOLE FOOTAGE	2000' FNL & 330' FEL
LOCATION:	Section 19, T. 16 S., R 29 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)

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 (505) 234-5972 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 stockpile the topsoil of the well pad. The topsoil to be stripped is approximately 4 inches in depth. The topsoil shall not be used to backfill the reserve pit and will be used for interim and final reclamation.

C. RESERVE PITS

The reserve pit shall be constructed and closed in accordance with the NMOCD rules.

The reserve pit shall be constructed 120' X 120' on the East side of the well pad.

The reserve pit shall be constructed, so that upon completion of drilling operations, the dried pit contents shall be buried a minimum depth of three feet below ground level. Should the pit content level not meet the three foot minimum depth requirement, the excess contents shall be removed until the required minimum depth of three feet below ground level has been met. The operator shall properly dispose of the excess contents at an authorized disposal site.

The reserve pit shall be constructed and maintained so that runoff water from outside the location is not allowed to enter the pit. The berms surrounding the entire perimeter of the pit shall extend a minimum of two (2) feet above ground level. At no time will standing fluids in the pit be allowed to rise above ground level.

The reserve pit shall be fenced on three (3) sides during drilling operations. The fourth side shall be fenced immediately upon rig release.

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

If the operator elects to surface the access road and/or well pad, mineral materials extracted during construction of the reserve pit may be used for surfacing the well pad and access road and other facilities on the lease.

Payment shall be made to the BLM prior to removal of any additional federal mineral materials from any site other than the reserve pit. Call the Carlsbad Field Office at (505) 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. 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 thirty (30) 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.

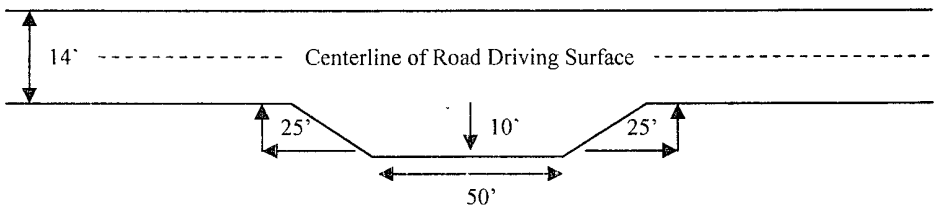
Ditching

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 be constructed on all blind curves. Turnouts shall conform to the following diagram:

Standard Turnout – Plan View

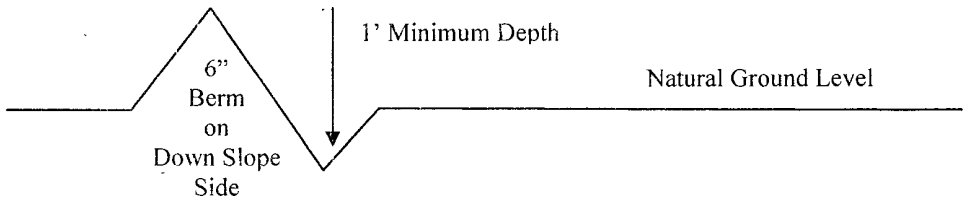


Drainage

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:

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

Culvert Installations
Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards
An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road 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 cattleguard(s) that are in place and are utilized during lease operations.

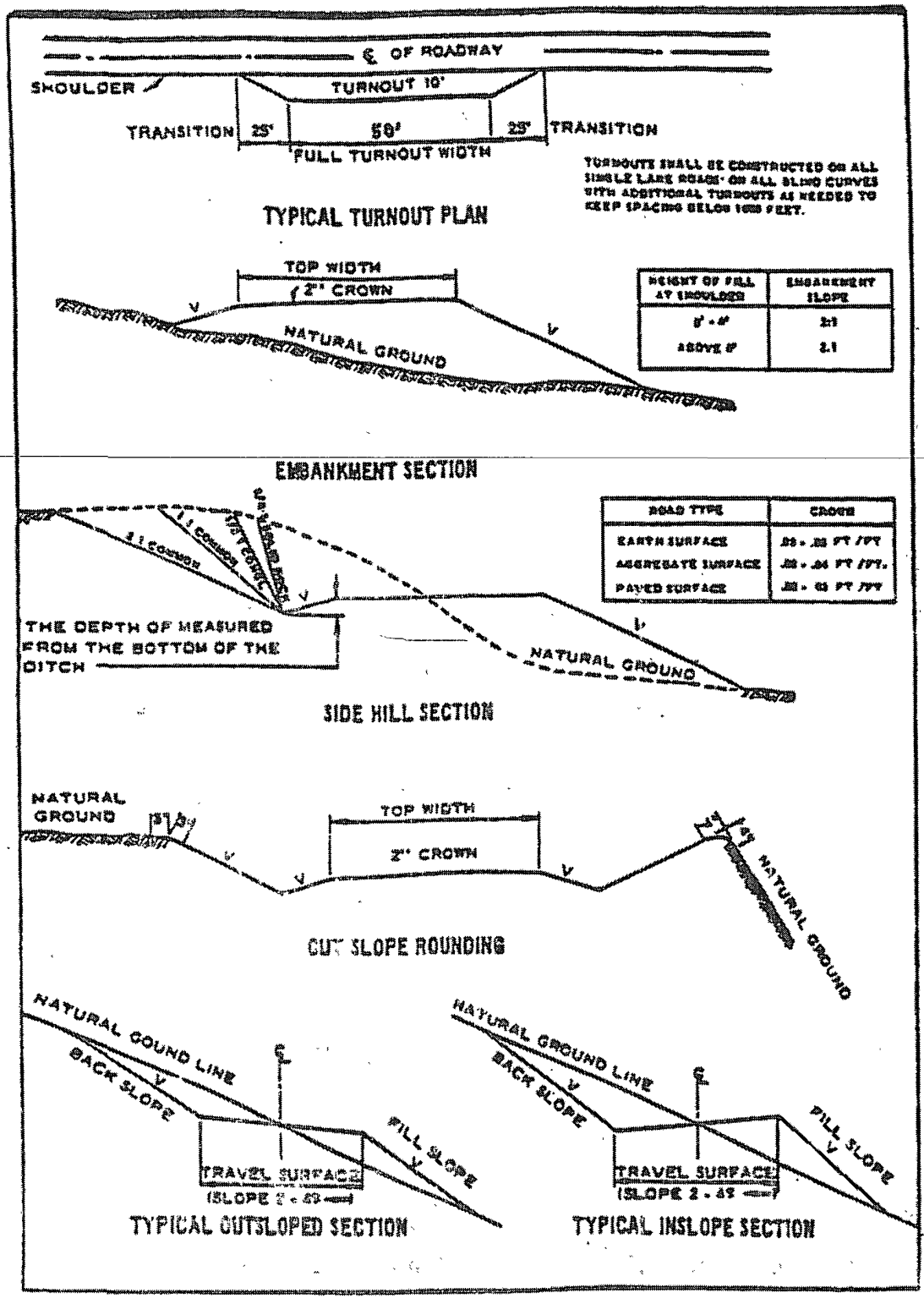
A gate shall be constructed and fastened securely to H-braces.

Fence Requirement
Where entry is required 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 fence(s).

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

Figure 1 – Cross Sections and Plans For Typical Road Sections



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 hours in advance for a representative to witness:

a. Spudding well
b. Setting and/or Cementing of all casing strings
c. BOPE tests

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

1. **Hydrogen Sulfide has been reported as a hazard, but no measurements have been recorded. It is recommended that monitoring equipment be onsite for potential Hydrogen Sulfide. If Hydrogen Sulfide is encountered, please report measurements 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.

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 are located, this does not include the dog house or stairway area.

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

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

Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string.

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

Possible lost circulation in the Grayburg and San Andres formations. High pressure expected in the Wolfcamp and Cisco formation. Cisco formation may be penetrated by the pilot hole.

1. The **13-3/8** inch surface casing shall be set **at approximately 320 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **If the salt is penetrated, the casing is to be set 25 feet above the salt. Additional cement will be required for the surface casing as this is within 100' of a high cave/karst area. Recommend that 100% excess be onsite prior to cementing.**

    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 a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.

    b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement).

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.

    d. If cement falls back, remedial cementing will be done prior to drilling out that string.

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

    ☒ Cement to surface. If cement does not circulate see B.1.a-d above.

If 75% or greater lost circulation occurs while drilling the intermediate casing hole, the cement on the production casing must come to surface.

Pilot hole to be plugged back to kick-off point.

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i.

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

3. The minimum required fill of cement behind the 5-1/2 inch production casing is:

    ☒ Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification.

4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. 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.

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

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

    a. The tests shall be done by an independent service company.

    b. The results of the test shall be reported to the appropriate BLM office.

    c. 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.

    d. 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.

    e. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the **Wolfcamp** formation **if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days.** This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

    f. A variance to test the BOP/BOPE **(entire system)** to the reduced pressure of **2400** psi after setting the surface casing is approved. **Full pressure test to be performed after setting intermediate casing.**

D. DRILLING MUD

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

E. DRILL STEM TEST

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

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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.

Containment Structures
The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

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, Munsell Soil Color Chart # 5Y 4/2

IX. INTERIM RECLAMATION & RESERVE PIT CLOSURE

A. INTERIM RECLAMATION

If the well is a producer, interim reclamation shall be conducted on the well site in accordance with the orders of the Authorized Officer. The operator shall submit a Sundry Notices and Reports on Wells (Notice of Intent), Form 3160-5, prior to conducting 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.

At the time reserve pits are to be reclaimed, operators should work with BLM surface management specialists to devise the best strategies to reduce the size of the location. Any reductions 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 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.

B. RESERVE PIT CLOSURE

The reserve pit, when dried and closed, shall be recontoured, all trash removed, and reseeded as follows:

Seed Mixture 3, for Shallow Sites

The 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 will 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 will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorised officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will 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 Bristlegrass (*Setaria magrostachya*)	1.0
Green Spangletop (*Leptochloa dubia*)	2.0
Side oats Grama (*Bouteloua curtipendula*)	5.0

*Pounds of pure live seed:

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

(Insert Seed Mixture Here)

X. FINAL ABANDONMENT & REHABILITATION REQUIREMENTS

Upon abandonment of the well and/or when the access road is no longer in service the Authorized Officer shall issue instructions and/or orders for surface reclamation and restoration of all disturbed areas.

On private surface/federal mineral estate land the reclamation procedures on the road and well pad shall be accomplished in accordance with the private surface land owner agreement.