N. M. Off Com.

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

### SUBMIT IN TRL T (Other instructions on ARTES (reverse side) UNITED STATES ARTEST DEPARTMENT OF THE INTERIOR

	RUDEALLOE	LAND MANA	CEME	NIUK NT		5. LEASE DESIGNATION	AND SERIAL NO.	
APDI	NM-81218							
a. TYPE OF WORK	ICATION FOR P	ERMII 10	DKIL	L OR DEEPEN		6. IF INDIAN, ALLOTTER OR TRIBE NAME		
	ILL 🖾	DEEPEN				7. UNIT AGREEMENT N	AMB	
D. TIPE OF WELL OIL	 						14056	
	VELL OTHER			ONE ZONE		S. FARM OR LEASE NAME, WE	LL NO.	
YATES PETROT	EUM CORPORATION	200	- 76			Brannigan ANF	Federal #5	
ADDRESS AND TELEPHONE NO.		255	/3	SCENT	<del>\(\)</del>	9. AH WELL NO.	7-6	
105 South Fo	ourth Street, Ar	tesia. New	Mexi		ESIA 18-1471	10. PIELD AND POOL, C	5020 1	
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	AND DIRECTION FROM NEAR	IN ACT	F Fg	K <del>GY 1-MA TTO</del> A	<del> </del>	Section 6,		
	y 30 miles nort				A	12. COUNTY OR PARISH Eddy County	NOW MONT	
DISTANCE FROM PROPO LOCATION TO NEAREST	DAED*	iiwest of Ca		O. OF ACRES IN LEASE		OF ACRES ASSIGNED	New Mexi	
PROPERTY OR LEASE I	IVE PE	660'		60.09	TO T	HIS WELL 160		
3. DISTANCE FROM PROP TO NEAREST WELL, D	OSED LOCATIONS	<del></del>	19. PR	OPOSED DEPTH	20. ROTA	RY OR CABLE TOOLS		
OR APPLIED FOR, ON TH	IS LEASE, FT.		8	600 <b>'</b>		ary		
1. ELEVATIONS (Show who 4342 GR	ether DF, RT, GR, etc.)				<del>'</del>	22. APPROX. DATE WO	RK WILL START	
4342 GR						ASAP		
·	<u> </u>	PROPOSED CASI	NG ANI	CEMCARESBAD	CONTR	COLLED WATER	BASIN	
SIZE OF HOLE	GRADE, SIZE OF CASING	WEIGHT PER P		SETTING DEPTH		QUANTITY OF CEMEN		
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12 1/4" 8 3/4"	9 5/8"	36# 23# & 26		<u>2650'</u>		Circulated		
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DISTRICT I P.O. Box 1980, Hobbs, NM 88240

#### State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Instruction on back
Submit to Appropriate District Office

State Lease - 4 Copies
Fee Lease - 3 Copies

DISTRICT II P.O. Drawer DD, Artesia, NM 88210

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

#### OIL CONSERVATION DIVISION

P.O. Box 2088

Santa Fe, New Mexico 87504-2088

☐ AMENDED REPORT

#### WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
	·	Indian Basin Upper Penn Associated
Property Code	Property	Name Well Number
	BRANNIGAN "ANF"	FEDERAL 5
OGRID No.	Operator	Name Elevation
025575	YATES PETROLEUM	CORPORATION 4342

#### Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County	]
1	6	225	24E		1367	SOUTH	177	EAST	EDDY	

#### Bottom Hole Location If Different From Surface

UL or lot No.	Section	Townsh	ip	Range	Lot ldn	Feet from the	North/South line	Feet from the	East/West line	County
Р	6	225		24E		900	SOUTH	660	EAST	EDDY
Dedicated Acres	Joint o	r Infill	Cor	nsolidation (	Code Or	der No.	L.,		L	L
320										

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 the the information contained herein is true and complete to best of my knowledge and belief.  Pen Deny W.  Signeture  Len Bearlem II.  3- 1-98  Date  SURVEYOR CERTIFICATION  I hereby certify that the well location shoon this plat was plotted from field notes actual surveys made by me or waster supervision, and that the same is true orrect to the best of my belief.  3/10/98  Date Surveyed  Signature  4340  3/10/98  Date Surveyed  Signature  Fortesting in Mills  (660')  3/10/98  Date Surveyed  Signature  Control of the best of my belief.  Control of the best of my belief.  Signature  Control of the best of my belief.  Control of t

# YATES PETROLEUM CORPORATION BRANNIGAN "ANF" FEDERAL #5 SURFACE: 1367' FSL AND 177' FEL BOTTOM HOLE: 990'FSL AND 660' FEL Section 6, T19S-R24E Eddy County, New Mexico

#### H2S Drilling Operations Plan

Personnel employed at the rig site shall receive training in H2S detection, safe drilling procedures and contingency plans. H2S safety equipment shall be installed and functional 3 days or 500 feet prior to encountering known or probable H2S zone at 3200' feet.

Submitted with the APD is a well site diagram showing:

- 1) Drilling rig orientation, location of flare pit.
- 2) Prevailing wind direction.
- 3) Location of access road.

Primary briefing area will be established 150' from wellbore and up wind of prevailing wind direction. Secondary briefing area will be established 180 degrees from primary briefing area.

A H2S warning sign will be posted at the entrance of the location. Depending on conditions, a green, yellow, or red flag will be displayed.

Green - Normal conditions Yellow - Potential danger

**Red** - Danger H2S present

Wind indicators will be placed on location at strategic, highly visible areas. H2S monitors (a minimum of three) will be positioned on location for best coverage and response. H2S concentrations of 10 ppm will trigger a flashing light and 20 ppm will trigger an audible siren.

H2S breathing equipment will consist of:

- 1) 30 minute "pressure demand" type working unit for each member of rig crew on location.
- 2) 5 minute escape packs for each crew member.
- 3) Trailer with a "cascade air system: to facilitate working in a H2S environment for time period greater than 30 minutes.

# BRANNIGAN "ANF" FEDERAL #5 Page 2

Breathing equipment will be stored in weather proof cases or facilities. They will be inspected and maintained weekly.

The mud system will be designed to minimize or eliminate the escape of H2S at the rig floor. This will be accomplished through the use of proper mud weight, proper ph control of the drilling fluid and the use of H2S scavengers in the drilling fluid. A mud gas separator will be utilized when H2S has is present in the mud.

Drilling experience has shown that wells in developmental areas, (i.e. Dagger Draw, Livingston Ridge Delaware, and Lusk Delaware) are normally pressured and don't experience either H2S kicks or loss of returns. Due to these circumstances, we request exceptions to the rule requiring flare line with remote lighter and choke manifold with minimum of one remote choke. This equipment would be provided on exploratory wells or wells with the known potential for H2S kicks. Additionally, a SO2 monitor would be positioned near the flare line, and a rotating head utilized.

The drill string, casing, tubing, wellhead, blowout preventers and associated lines and valves will be suitable for anticipated H2S encounters.

Radio and or mobile telephone communication will be available on site. Mobile telephone communication will be available in company vehicles.

Drill stem testing to be performed with a minimum number of essential people on location. They will be those necessary to safely conduct the test. If H2S is encountered during a drill stem test, essential personnel will mask up and determine H2S concentration. The recovery will then be reversed to flare pit. Pulling of test tools will be conducted in a safe manner.

#### Scientific Drilling **Planning Report**

Brannigun PS

Date: 3/19/1998 Time: 09:19:56 Carry 1 300 minus Linguist Contraction To ordinate(NE) Reference: Site: Eddy Co.; New Mexico, True North: 美国精神公司 医电影管 Vertical (TVD) Reference: SITE D.O above Mean See Level: Site (D.O.E.O.ON, 314 DAZI) Section (VS) Reference: Plan #1 Local Coordinate Reference: Site Centre Field: Indian Basin Canyon Location of Field Centre: N/A Field Centre Map Easting: m Field Centre Map Northing: m Map Projection & Zone: US State Plane Coordinate System 1927 Direction of Local North: Texas, Central Zone Ellipsoid: Clarke - 1866 Local Vertical Reference: Wellpath Datum IGRF95 Field Datum: Mean Sea Level Geomagnetic Model: Site: Eddy Co., New Mexico m E Latitude Site Centre: m N Longitude Site Water Depth: 0.00 deg Magnetic Declination: Grid Convergence: 0.00 deg Measured Depths Referenced To: SITE 0.0 ft above Mean Sea Level Well: Brannigan ANF federal #5 0.00 m 00 ft +N/-S Map Easting: Originating From: 0.0 ft +E/-W Map Northing: 0.00 m Wellpath: NW Kick Origin of Vertical Section: Site Centre 0.0 ft +N/-S 0.0 ft +E/-W Direction of Vertical Section: 314.04 deg Date Composed: 3/19/1998 Plan: Plan #1 Version: Locked: No Principal: Yes Plan Section Information IN'S +E'W DLS Bulla Turn TFO Target Inc1 . Azim TYD MD deg d/100ft d/100ft ₽. deg deg ₩. d/100ft 55500 0.00 314.04 5550.0 0.0 00 0.00റന 0.000.00 0.00 5589.8 0.00 31404 5589.8 0.0 0.0 0.00 0.00 0.00 6589.8 15.00 314.04 6578.4 90.5 -93.6 1.50 1.50 0.00 0.00 15.00 314.04 8600.0 -483.0 0.00 0.00 8682.7 1 : Slant Part 1 Hold Section TVD +N-S +E/-W Azim VS DLS Build Two Tro MD deg deg. it : # R d/1001 d/100ft deg : R 5550.0 314.04 5550.0 0.00 0.00 0.00 5589.8 Section 2: Slant Part 2 Build 1.50 MD Azim DLS Daild Turn TFO R: deg n. ft ... d/100ft d/100ff d/100ft deg deg : 5600.0 0.15 314.04 5600.0 0.0 0.0 0,00 5700.0 1.65 314.04 5700.0 1.1 -1.1 1.6 1.50 1.50 0.00 0.00 5800.0 4.0 -4.2 5,8 1.50 314.04 57999 0.00 3.15 1,50 0.00 8.8 -9.1 5900.0 4.65 314.04 5899.7 12.6 1.50 1.50 0.00 0.00 ₹0000.D 6.15 314.04 5000.2 15.3 -15.8220 1.50 1.50 0.00 0.00 6100 D 314.04 6098.5 23.7 -24.5 340 1.50 1.50 0.00 0.00

# Scientific Drilling Planning Report

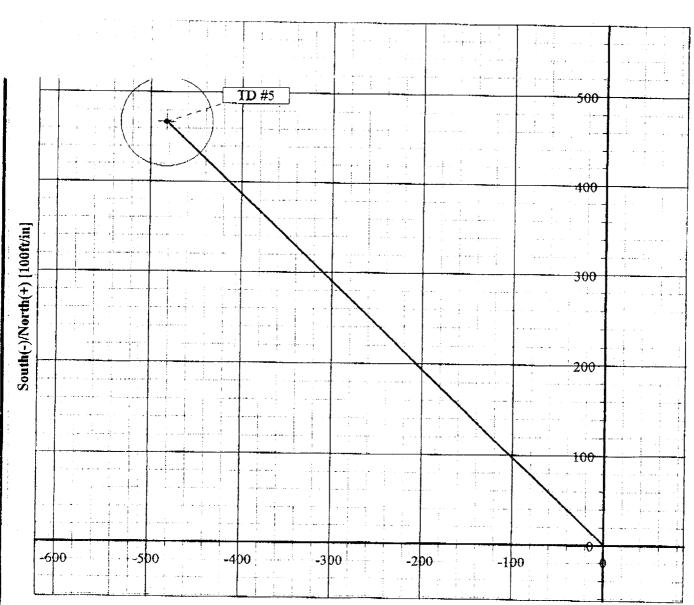
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Company: Yales Petroleum  Date: 3/19/1998 Time: 09/19/56 Page: 2  Field: Indian Basin Canyon. Co-ordinate(NE) Reference: Site Eddy Co. New Mexico, Trus North  Site. Eddy Co. New Mexico.  Vertical (TVD) Reference: Site Eddy Co. New Mexico. Trus North  Well: Brinningan AMF federal #5  Section (VS) Reference: Site (COE) ON 3/4 (DAZ)  Wells: NW-Rick  Plan #1  Section 2: Start Part 2 Build 1.50										
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Yates Petroleum Field: Indian Basin Canyon

Site: Eddy Co., New Mexico
Well: Brannigan ANF federal #5
Wellpath: NW Kick
Plan: Plan #1





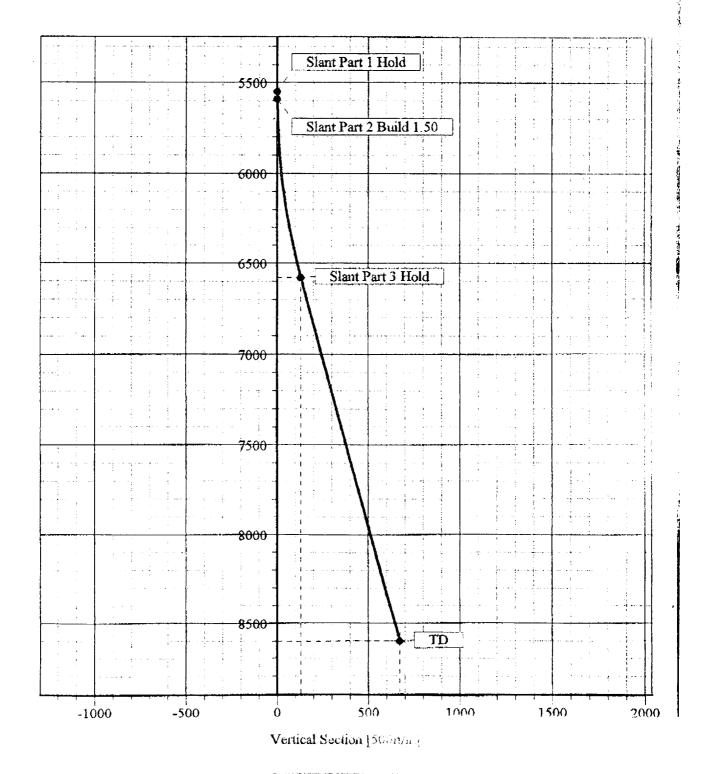
West(-)/East(+) [100ft/in]

True Vertical Depth [500ft/in]



Yates Petroleum Field: Indian Basin Canyon

Site: Eddy Co., New Mexico
Well: Brannigan ANF federal #5
Wellpath: NW Kick
Plan: Plan #1

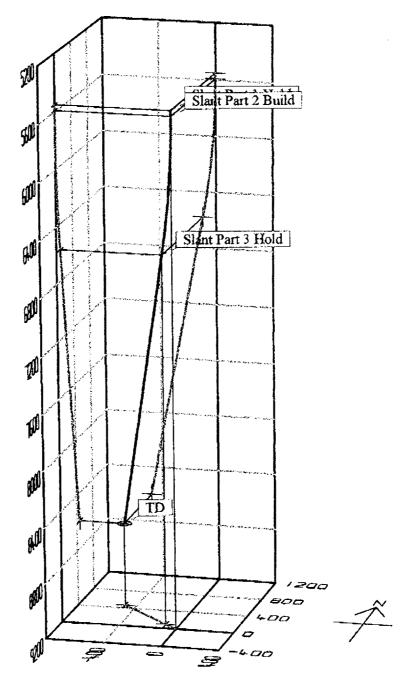




Yates Petroleum

Field: Indian Basin Canyon Site: Eddy Co., New Mexico Well: Brannigan ANF federal #5 Wellpath: NW Kick

Plan: Plan #1



## YATES PETROLEUM CORPORATION Brannigan "ANF" Federal #5

Surface: 1367' FSL & 177' FEL Bottom Hole: 900' FSL & 660' FEL Sec. 6-T22S-R24E Eddy County, New Mexico

1. The estimated tops of geologic markers are as follows:

San Andres	1380′
Glorietta	2600'
Bone Springs	3130′
Wolf Camp	7550'
Canyon	7890'
TD	8600'

2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:

Water:

200' - 300'

Oil or Gas: All potential zones.

3. Pressure Control Equipment: BOPE will be installed on the 9 5/8" casing and rated for 3000 BOP systems will be consistent with API RP 53. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place. Blowout Preventor controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventors will be inspected and operated at least daily to ensure good mechanical working order, and this inspection recorded on the daily drilling report. See Exhibit B.

#### Auxiliary Equipment:

- A. Auxiliary Equipment: Kelly cock, pit level indicators, flow sensor equipment and a sub with full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.
- 4. THE PROPOSED CASING AND CEMENTING PROGRAM:
  - A. Casing Program: (All New)

Hole Size	Casing Size	Wt./Ft	Grade	Coupling	Interval
17 1/2"	13 3/8"	48#	H-40	ST&C	0-350'
12 1/4"	9 5/8"	36#	J-55	ST&C	0-2650'
8 3/4"	7.0"	26#	J-55	LT&C	0-900'
8 3/4"	7.0"	23#	J-55	LT&C	900′-5300′
8 3/4"	7.0"	26#	J-55	LT&C	5300′-7300′
8 3/4"	7.0"	26#	N-80	LT&C	7300′-8600′

Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Joint Strength 2.0

#### Brannigan "ANF" Federal #5 Page 2

#### B. Cementing Program:

Surface casing: 400 sacks class 'C' with 2% CaCL2, (YLD 1.32 WT14.8) cement

circulated to surface.

Intermediate Casing: 200 sacks 'H' + 12% Thixad + additives (YLD 1.56 WT 14.6)

550 sx 35:65 Poz C (YLD 2.0 WT 12.5) tail in with 200 sx 'C' + 2% CaCL2 (YLD 1.32 WT 14.6). Cement circulated to

surface.

Production Casing: 100 sx Thickset 'H' (YLD 1.56 WT 14.6), tail with 200 sx 'H'

(YLD 1.18 WT 15.6).

#### 5. MUD PROGRAM AND AUXILIARY EQUIPMENT:

<u>Interval</u>	<u> Type</u>	<u>Weight</u>	<u>Viscosity</u>	Fluid Loss
0-350'	FW Spud Mud	8.3-8.6	32-36	N/C
350'-2650'	FW	8.4	28	N/C
2650'-7400'	FW	8.4	28	N/C
7400'-7800'	Cut Brine	8.9-9.6	28	N/C
7800'-TD	SW Gel/Starch	8.9-9.6	32-38	<12cc

Sufficient mud material(s) to maintain mud properties, control lost circulation and contain a blow out will be available at the well site during drilling operations. Mud will be checked hourly by rig personnel.

#### 6. EVALUATION PROGRAM:

Samples: 10' samples out from under surface casing.

Logging: CNL/LDT, DLL w/RXO.

Coring: None

DST's: As warranted.

#### 7. ABNORMAL CONDITIONS, BOTTOM HOLE PRESSURE AND POTENTIAL HAZARDS:

Anticipated BHP:

From: 0 TO: 350' Anticipated Max. BHP: <150 PSI From: 350' TO: 2650' Anticipated Max. BHP: <1150 PSI Anticipated Max. BHP: <1150 PSI Anticipated Max. BHP: <4300 PSI

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: None

H2S Zones Anticipated: Possible Canyon

Maximum Bottom Hole Temperature: 150 F

#### 8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 20 days to drill the well with completion taking another 15 days.

#### **MULTI-POINT SURFACE USE AND OPERATIONS PLAN**

Yates Petroleum Corporation
Brannigan "ANF" Federal #5
Surface: 1367' FSL & 177' FEL
Bottom Hole: 900' FSL & 660' FEL
Sec. 6-T22S-R24E
Eddy County, New Mexico

This plan is submitted with Form 3160-3, Application for Permit to Drill, covering the above described well. The purpose of this plan is to describe the location of the proposed well, the proposed construction activities and operations plan, the magnitude of the surface disturbance involved and the procedures to be followed in rehabilitating the surface after completion of the operations, so that a complete appraisal can be made of the environmental effect associated with the operations.

#### 1. EXISTING ROADS:

Exhibit A is a portion of the BLM map showing the well and roads in the vicinity of the proposed location. The proposed wellsite is located approximately 30 miles Northwest of Carlsbad, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

#### **DIRECTIONS:**

Go north of Carlsbad on highway 285 for 12.5 miles to highway 137. Turn west and go 14 miles to a caliche road and turn east. Stay on main on caliche road, up the hill; at the top of the hill turn north and go approximately 9/10ths of a mile. The new road starts here going west to the location.

- 2. PLANNED ACCESS ROAD Approximately 600' of new road will be needed.
- 3. LOCATION OF EXISTING WELL
  - A. There is drilling activity within a one-mile radius of the wellsite.
  - B. Exhibit D shows existing wells within a one-mile radius of the proposed wellsite.

#### 4. LOCATION OF EXISTING AND/OR PROPOSED FACILITIES

- A. There are production facilities on this lease at the present time.
- B. In the event that the well is productive, the necessary production facilities will be installed on the drilling pad. If the well is productive oil, a gas or diesel self-contained unit will be used to provide the necessary power. No power will be required if the well is productive of gas.

#### 5. LOCATION AND TYPE OF WATER SUPPLY:

A. It is planned to drill the proposed well with a fresh water system. The water will be obtained from commercial sources and will be hauled to the location by truck over the existing and proposed roads shown in Exhibit A.

#### 6. SOURCE OF CONSTRUCTION MATERIALS:

Dirt contractor will locate closest pit and obtain any material needed for construction.

#### 7. METHODS OF HANDLING WASTE DISPOSAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. Drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry.
- C. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
- D. Oil produced during operations will be stored in tanks until sold.
- E. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- F. All trash, junk, and other waste materials will be contained in trash cages or bins to prevent scattering and will be removed and deposited in an approved sanitary land fill. Burial on site is not approved.

#### 8. ANCILLARY FACILITIES:

A. Flowline to follow existing right of way corridor to the Brannigan Tank Battery. See plat on map. Flowline and 12,400 volt Powerline will be on lease also.

#### 9. WELLSITE LAYOUT:

- A. Exhibit C shows the relative location and dimensions of the well pad, the reserve pits, the location of the drilling equipment, rig orientation and access road approach.
- B. The reserve pits will be plastic lined.
- C. A 400' x 400' area has been staked and flagged.

#### 10. PLANS FOR RESTORATION

- A. After finishing drilling and/or completion operations, all equipment and other material not needed for further operations will be removed. The location will be cleaned of all trash and junk to leave the wellsite in as aesthetically pleasing a condition as possible.
- B. Unguarded pits, if any, containing fluids will be fenced until they have dried and been leveled.
- C. If the proposed well is non-productive, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible. All pits will be filled level after they have evaporated and dried.
- 11. SURFACE OWNERSHIP: Bureau of Land Management, Carlsbad, New Mexico.

#### 12. OTHER INFORMATION:

- A. Topography: Refer to the existing archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
- B. The primary surface use is for grazing.

## Brannigan "ANF" Federal #5 Page 3

#### 12. OTHER INFORMATION:

- A. Topography: Refer to the existing archaeological report dated March 13, 1998, report No. NMCRIS 60128 for a description of the topography, flora, fauna, soil characteristics, dwellings, historical and cultural sites.
- B. The primary surface use is for grazing.

#### 13. OPERATOR'S REPRESENTATIVE

A. Through A.P.D. Approval:

Ken Beardemphl, Landman Yates Petroleum Corporation 105 South Fourth Street Artesia, New Mexico 88210 Phone (505) 748-1471 B. Through Drilling Operations, Completions and Production:

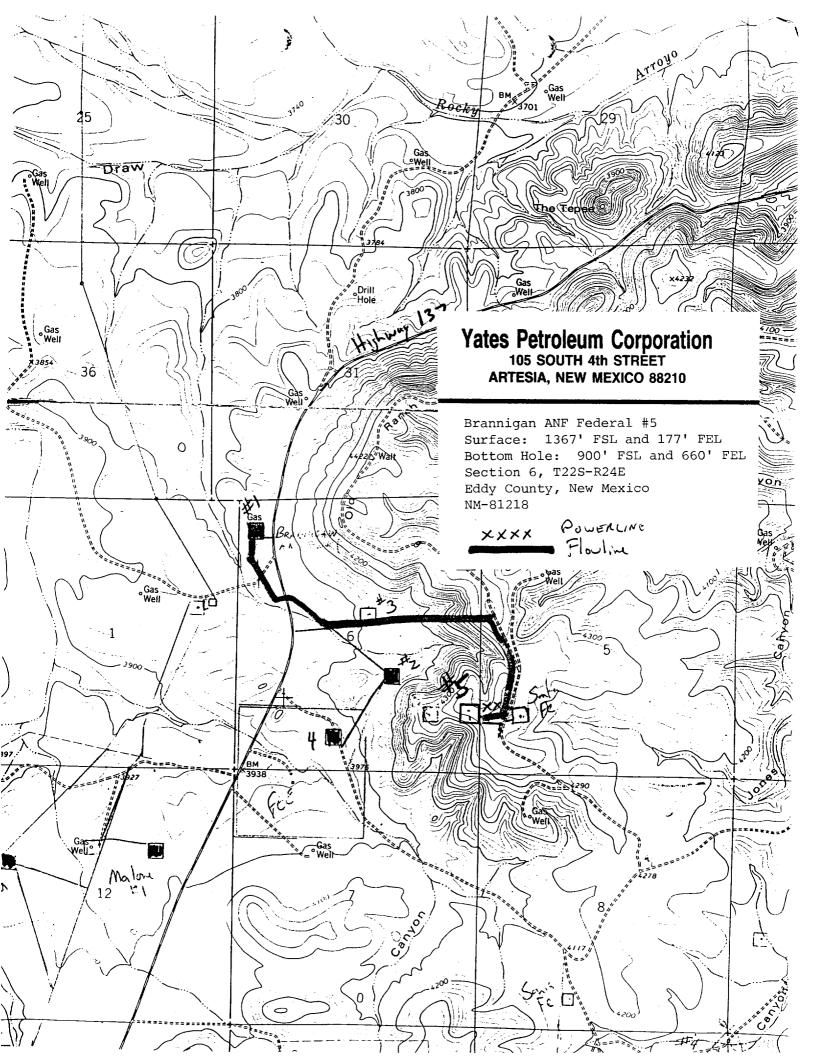
Brian Collins, Operations Manager Yates Petroleum Corporation 105 South Fourth Street Artesia, New Mexico 88210 Phone (505) 748-1471

#### 14. 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 presently 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 Yates Petroleum Corporation and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provisions of 18 U.S.C. 1001 for the filing of a false statement.

3/20/98

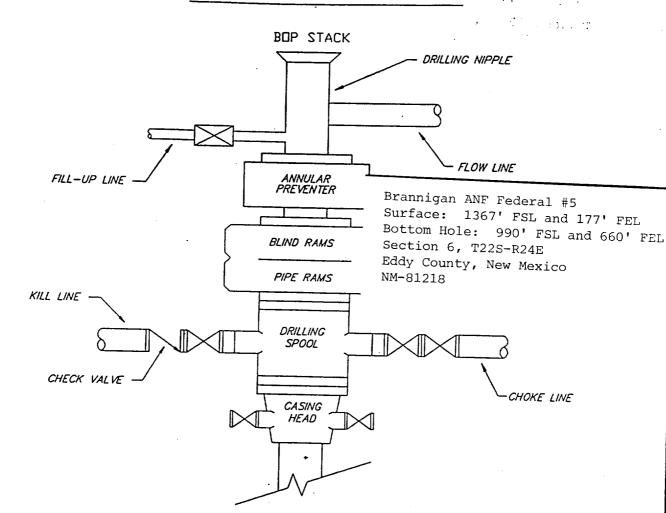
Landman



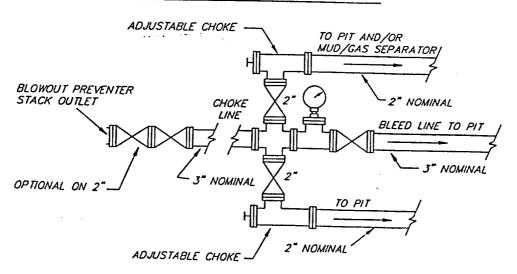
# rates Petroleum Corporation

105 SOUTH 4th STREET ARTESIA, NEW MEXICO 88210

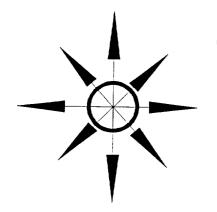
# TYPICAL 3,000 p.s.i. BLOWOUT PREVENTER SCHEMATIC



#### TYPICAL 3,000 p.s.i. CHOKE MANIFOLD SCHEMATIC



# Yates Petroleum Corporation 105 SOUTH 4th STREET ARTESIA, NEW MEXICO 88210

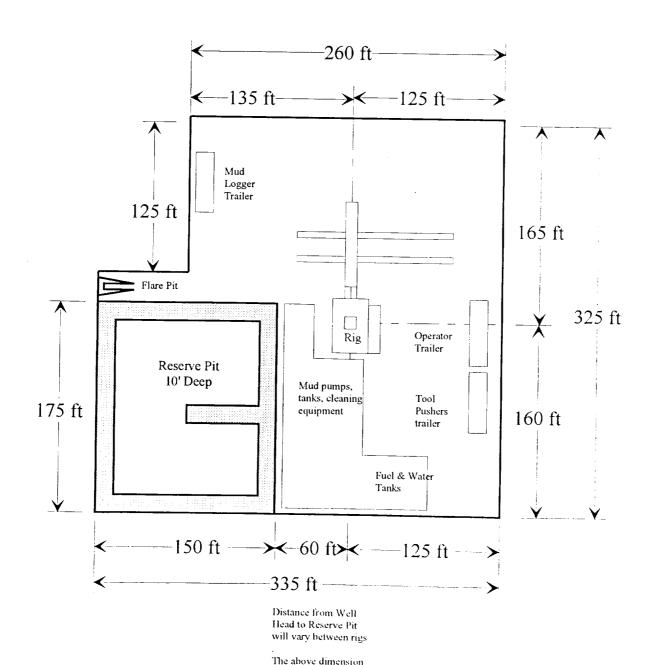


Brannigan ANF Federal #5

Surface: 1367' FSL and 177' FEL Bottom Hole: 990' FSL and 660' FEL

Section 6, T22S-R24E Eddy County, New Mexico

NM-81218



should be a maximum

