

8065

v p m  
4k

S

OCD-ARTESIA

ATS-07-731

1306

Form 3160-3  
(February 2005)

RESUBMITTAL

DEC 19 2007  
OCD-ARTESIA

FORM APPROVED  
OMB NO 1004-0137  
Expires March 31,2007

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No NM-81218
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name Brannigan ANF Federal #7 14054
2. Name of Operator Yates Petroleum Corporation 025575		7. If Unit or CA Agreement, Name and No.
3a. Address 105 South Fourth Street, Artesia, NM 88210		8. Lease Name and Well No. 30-015-36008
3b. Phone No (include area code) 505-748-1471		9. API Well No.
4. Location of well (Report location clearly and in accordance with any State requirements *) At surface: Carlsbad Controlled Water Basin At proposed prod. zone: 660' FNL and 1980' FWL, Lot 3		10. Field and Pool, or Exploratory Indian Basin Upper Penn Assoc.
14. Distance in miles and direction from the nearest town or post office* Approximately 31 miles Northwest of Carlsbad, NM		11. Sec., T., R., M., or Blk. And Survey or Area Section 6, T 22 S, R 24 E
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any) 2310'	16. No. of acres in lease 660.09	12. County or Parish Eddy
17. Spacing Unit dedicated to this well 320 W/2	13. State NM	
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 2600'	19. Proposed Depth 10,200	20. BLM/ BIA Bond No. on file NATIONWIDE BOND #NMB000434
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 4023GL	22. Approximate date work will start* ASAP	23. Estimated duration

24. Attachments

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

- Well plat certified by a registered surveyor.
- A Drilling Plan
- A Surface Use Plan ( if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
- Bond to cover the operations unless covered by existing bond on file(see item 20 above).
- Operator certification.
- Such other site specific information and/ or plans as may be required by the BLM

25. Signature 	Name (Printed/ Typed) Cy Cowan	Date 9/10/2007
Title Regulatory Agent		

Approved By (Signature) /s/ Don Peterson	Name (Printed/ Typed) /s/ Don Peterson	Date DEC 12 2007
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 cc 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 wilfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

\*(Instructions on page 2)

SEE ATTACHED FOR  
CONDITIONS OF APPROVAL

Previously Approved

C-144 attached

C-102 attached

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**

<sup>1</sup> API Number		<sup>2</sup> Pool Code 33685		<sup>3</sup> Pool Name Indian Basin Upper Penn Assoc.	
<sup>4</sup> Property Code		<sup>5</sup> Property Name Brannigan ANF Federal			<sup>6</sup> Well Number 7
<sup>7</sup> OGRID No. 025575		<sup>8</sup> Operator Name Yates Petroleum Corporation			<sup>9</sup> Elevation 4023

<sup>10</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	6	22 S	24 E		2415	North	2119	East	Eddy

<sup>11</sup> 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
Lot 3	6	22 S	24 E		660	North	1980	West	

<sup>12</sup> Dedicated Acres 320 W/2	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
--	-------------------------------	----------------------------------	-------------------------

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.

<p><sup>16</sup> NM-81218</p>	<p><sup>17</sup> <b>OPERATOR CERTIFICATION</b>  <i>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.</i></p> <p><i>Cy Cowan</i> 9/11/07        Signature Date</p> <p>Cy Cowan, Regulatory Agent        Printed Name</p>
	<p><sup>18</sup> <b>SURVEYOR CERTIFICATION</b>  <i>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.</i></p> <p>Date of Survey        Signature and Seal of Professional Surveyor:</p>
	<p><b>REFER TO ORIGINAL PLAT</b></p>
	<p>Certificate Number</p>

District I  
1825 N Franch Dr Hobbs, NM 88240

District II  
611 South First, Artesia, NM 88210

District III  
1000 Rio Brazos Rd., Aztec NM 87410

District IV  
2040 South Pacheco, Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources

**OIL CONSERVATION DIVISION**

2040 South Pacheco  
Santa Fe, N M 87505

Form C-102  
Revised March 17, 1999  
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 <b>33685</b>	Pool Name Indian Basin Upper Penn Assoc.
Property Code	Property Name <b>BRANNIGAN ANF FEDERAL</b>	Well Number 7
OGRID No. 025575	Operation Name <b>YATES PETROLEUM CORPORATION</b>	Elevation 4023

Surface Location

UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
G	6	22-S	24-E		2415	NORTH	2119	EAST	EDDY

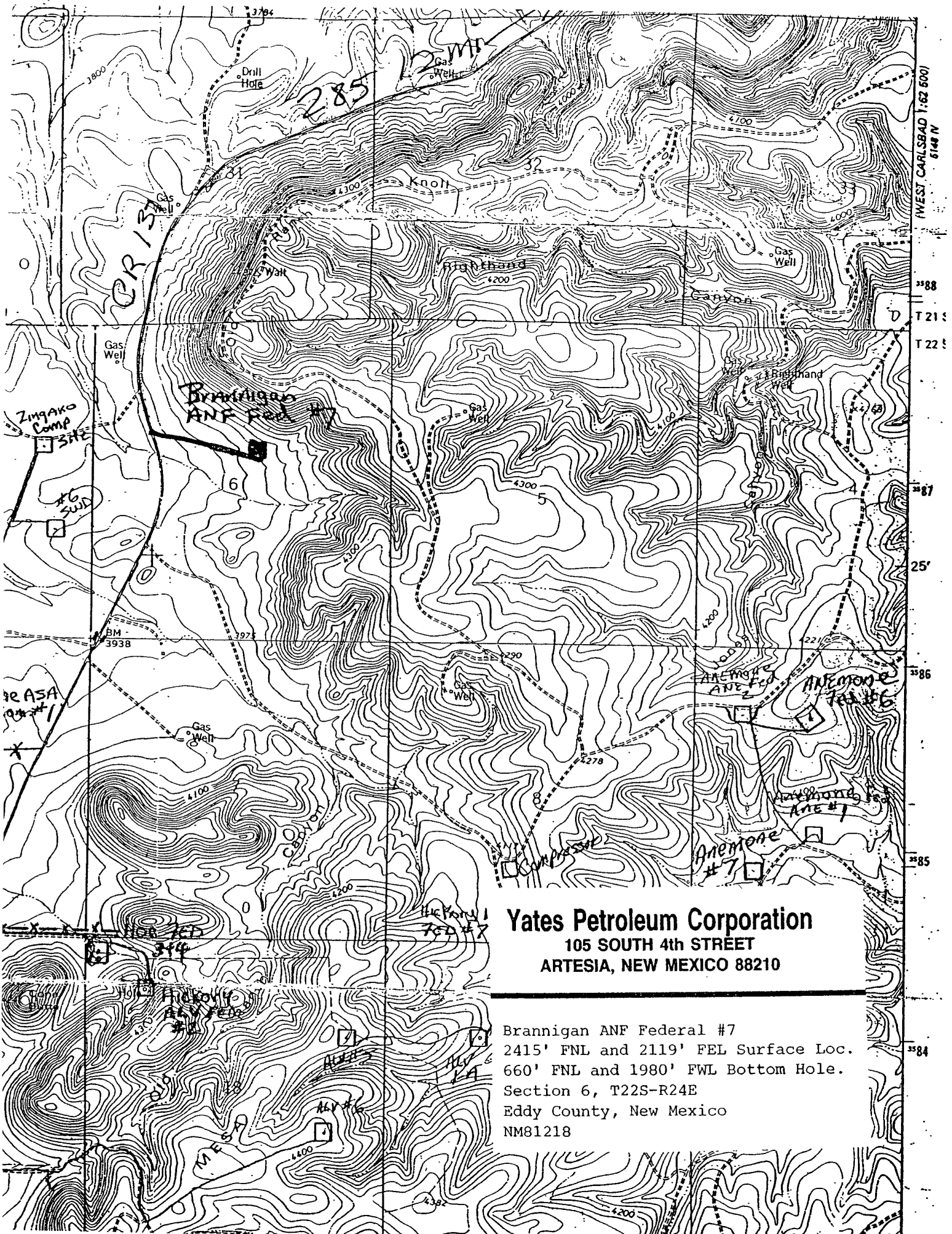
Bottom Hole Location if Different From Surface

UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
LOT 3	6	22-S	24-E		660	NORTH	1980	WEST	EDDY

Dedicated Acres 320	Joint or Infill	Consolidation Code	Order No.
------------------------	-----------------	--------------------	-----------

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

<p>NM-81218</p> <p>660'</p> <p>⊕ BOTTOM HOLE LOCATION</p> <p>1980'</p> <p>2415'</p> <p>⊕ SURFACE LOCATION</p> <p>2119'</p>	<p><b>OPERATOR CERTIFICATION</b></p> <p>I HEREBY CERTIFY THAT THE INFORMATION HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.</p>
	<p>Signature <i>Cy Cowan</i></p> <p>Printed Name Cy Cowan</p> <p>Title Regulatory Agent</p>
	<p>Date August 19, 2003</p> <p><b>SURVEYOR CERTIFICATION</b></p> <p>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 KNOWLEDGE AND BELIEF.</p>
	<p>AUGUST 6, 2003</p> <p>Date of Survey</p> <p>Signature and Seal of Professional Surveyor</p> <p><b>DAN R. REDD</b></p> <p>NEW MEXICO</p> <p>5412</p> <p>REGISTERED LAND SURVEYOR</p> <p>NM PROFESSIONAL SURVEYOR 5412</p> <p>Certificate Number</p>



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

Brannigan ANF Federal #7  
2415' FNL and 2119' FEL Surface Loc.  
660' FNL and 1980' FWL Bottom Hole.  
Section 6, T22S-R24E  
Eddy County, New Mexico  
NM81218

**YATES PETROLEUM CORPORATION**

**Brannigan ANF Federal #7**

2415' FNL and 2119' FEL Surface Location  
 660' FNL & 1980' FWL Bottom Hole Location  
 Sec. 6-T22S-R24E  
 Eddy County, New Mexico

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

Queen	Surface	Strawn	8992'
San Andres	1085'	Atoka	9378'
Glorietta	2568'	Upper Morrow	9770'
2 <sup>nd</sup> Bone Springs	4080'	Mid Morrow	9835'
3rd Bone Springs	6905'	Lower Morrow	9985'
Wolfcamp	7084'	Base Morrow	10095'
Cisco Canyon Dolomite	7780'	TD	10200'
Base of Dolomite	8267'		
Lower Canyon Lime	8287'		

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

Water: 250' - 350'  
 Oil or Gas: All potential zones.

*9 Per operator  
11-13-07*

3. Pressure Control Equipment: BOPE will be installed on the 8 5/8" casing and rated for 5000 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)

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./Ft</u>	<u>Grade</u>	<u>Coupling</u>	<u>Interval</u>	<u>Length</u>
14 3/4"	9 5/8"	36#	J-55	ST&C	0-2650'	2650'
8 3/4"	7.0"	26#	L-80	LT&C	0-800'	800'
8 3/4"	7.0"	26#	J-55	LT&C	800'-2100'	1300'
8 3/4"	7.0"	23#	J-55	LT&C	2100'-4900'	1300'
8 3/4"	7.0"	26#	J-55	LT&C	4900'-7100'	2200'
8 3/4"	7.0"	26#	L-80	LT&C	7100'-9300'	2200'
8 3/4"	7.0"	26#	HCP-110	LT&C	9300'-10200'	900'

*See CoA  
Replaced  
12-7-07*

*See CoA*

Possible set 7" early if severe lost circ. in Canyon  
 Minimum Casing Design Factors: Collapse 1.125, Burst 1.0, Joint Strength 1.8

B. Cementing Program:

Surface casing: 1800 sx Lite (YLD 2.0 WT 12.5), tail with 250 sx 'C' +2% CaCL2 (YLD 1.33 WT 14.8)

Production Casing: Stage I 350 sx 'H' (YLD 1.72 WT 13.0).

Stage II Lead in with 450 sx Interfill 'C' (YLD 2.71 WT 11.5).

If needed due to H2S tail in with 100 sx Premium (YLD 1.18 WT 15.6) Note attached contingency plan for drilling operations

5. MUD PROGRAM AND AUXILIARY EQUIPMENT:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-2650'	FW/Air Mist	8.4	28	N/C
2650'-7750'	Cut Brine	8.6-9.0	28	N/C
7750'-10,000'	Cut Brine/Starch/S Gel	9.0-9.4	28-32	<12cc
10,000'-TD	Salt Gel/Starch	9.4-9.8	34-38	<10cc

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 from intermediate casing.

Logging: Platform Express, HALS, NGT, possible FMI

Coring: None anticipated

DST's: As warranted.

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

Anticipated BHP:

From: 0 TO: 2650' Anticipated Max. BHP: 1150 PSI

From: 2650' TO: 10200' Anticipated Max. BHP: 5200 PSI

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: Possible in surface and intermediate holes.

H2S Zones Anticipated: Possible Canyon

Maximum Bottom Hole Temperature: 178 F

8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 30 days to drill the well with completion taking another 15 days.

**Brannigan ANG Federal #7  
Directional Drilling Procedure**

Brannigan ANG Fed. # 7 will be vertically drilled to kick off point of 2,750'.

A gyro survey will be ran.

Will pick up a Mud Motor and MWD system.

Angle will be built @ 3\* / 100', until angle of 27.94\*, and an azimuth of 324.3\* is reached.

The angle and azimuth will be maintained as per above, until 7,236' – Measured Depth.

At that point, the angle will be dropped at the rate of 3\* / 100', until the well bore is vertical, projected @ 8,167' – Measured Depth.

The wellbore will be kept at vertical, and drilled to TD of 10,687' – Measured Depth. ( TVD = 10,200')

### Brannigan ANF Federal #7 Production Casing

0 ft to 1,700 ft		Make up Torque ft-lbs			Total ft = 1,700	
O.D. 7 inches	Weight 26 #/ft	Grade HCP-110	Threads LT&C	opt. 6930	min. 5200	mx. 8660
Collapse Resistance 7,800 psi	Internal Yield 9,950 psi	Joint Strength 693,000 #		Body Yield 830,000 #	Drift 6.151	

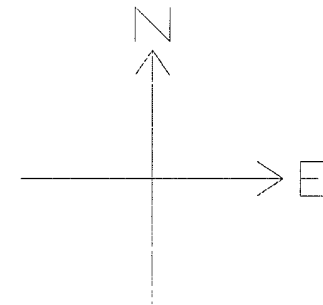
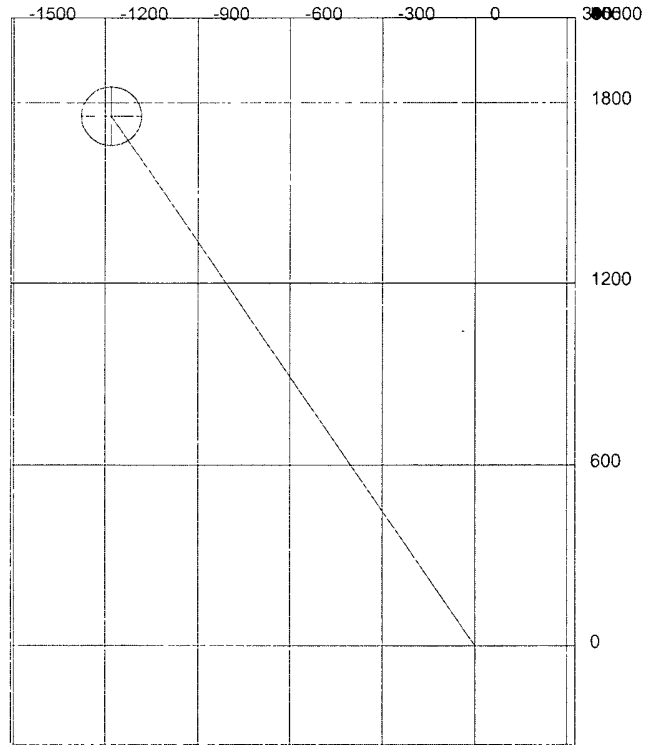
1,700 ft to 9,300 ft		Make up Torque ft-lbs			Total ft = 7,600	
O.D. 7 inches	Weight 26 #/ft	Grade L-80	Threads LT&C	opt. 5110	min. 3830	mx. 6390
Collapse Resistance 5,410 psi	Internal Yield 7,240 psi	Joint Strength 511,000 #		Body Yield 604,000 #	Drift 6.151	

9,300 ft to <del>10,634</del> <sup>10739</sup> ft		Make up Torque ft-lbs			Total ft = <del>1,334</del> <sup>1439</sup>	
O.D. 7 inches	Weight 26 #/ft	Grade HCP-110	Threads LT&C	opt. 6930	min. 5200	mx. 8660
Collapse Resistance 7,800 psi	Internal Yield 9,950 psi	Joint Strength 693,000 #		Body Yield 830,000 #	Drift 6.151	



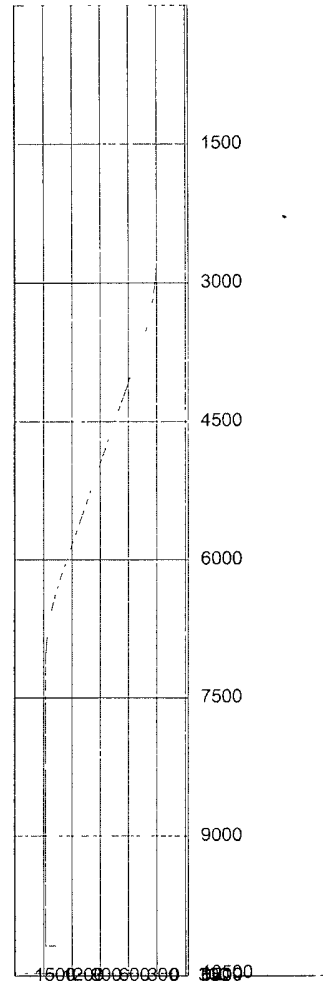
# 3D<sup>3</sup> Directional Drilling Planner - 3D View

Company: Yates Petroleum Corporation  
Well: Brannigan ANF Federal #7



# 3D<sup>3</sup> Directional Drilling Planner - 3D View

Company: Yates Petroleum Corporation  
Well: Brannigan ANF Federal #7



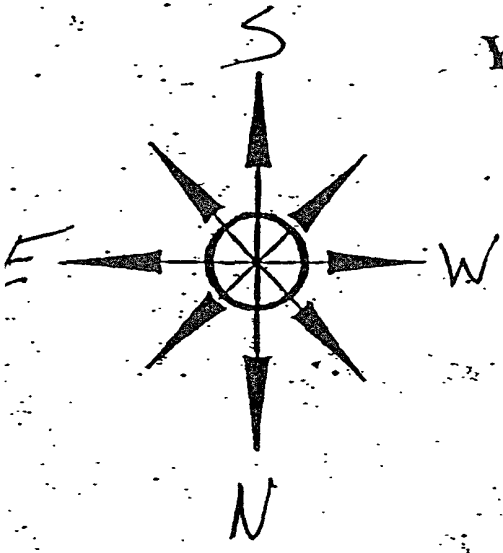
	M.D. [ft]	Inclination [°]	Azimuth [°]	T.V.D. [ft]	N+/S- [ft]	E+/W- [ft]	D.L.S. [°/100ft]	ToolFace [°]	T.F. Ref. [HS/GN]
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	2650.00	0.00	0.00	2650.00	0.00	0.00	3.00	326	GN
3	2675.00	0.75	326.06	2675.00	0.14	-0.09	3.00	360	HS
4	2700.00	1.50	326.06	2699.99	0.54	-0.37	3.00	0	HS
5	2725.00	2.25	326.06	2724.98	1.22	-0.82	3.00	360	HS
6	2750.00	3.00	326.06	2749.95	2.17	-1.46	3.00	0	HS
7	2775.00	3.75	326.06	2774.91	3.39	-2.28	3.00	0	HS
8	2800.00	4.50	326.06	2799.85	4.88	-3.29	3.00	360	HS
9	2825.00	5.25	326.06	2824.76	6.65	-4.47	3.00	0	HS
10	2850.00	6.00	326.06	2849.64	8.68	-5.84	3.00	360	HS
11	2875.00	6.75	326.06	2874.48	10.98	-7.39	3.00	360	HS
12	2900.00	7.50	326.06	2899.29	13.56	-9.12	3.00	0	HS
13	2925.00	8.25	326.06	2924.05	16.40	-11.03	3.00	0	HS
14	2950.00	9.00	326.06	2948.77	19.51	-13.13	3.00	0	HS
15	2975.00	9.75	326.06	2973.43	22.89	-15.40	3.00	360	HS
16	3000.00	10.50	326.06	2998.04	26.53	-17.85	3.00	360	HS
17	3025.00	11.25	326.06	3022.60	30.45	-20.49	3.00	0	HS
18	3050.00	12.00	326.06	3047.08	34.63	-23.30	3.00	360	HS
19	3075.00	12.75	326.06	3071.50	39.07	-26.29	3.00	360	HS
20	3100.00	13.50	326.06	3095.85	43.78	-29.46	3.00	0	HS
21	3125.00	14.25	326.06	3120.12	48.75	-32.81	3.00	360	HS
22	3150.00	15.00	326.06	3144.31	53.99	-36.33	3.00	0	HS
23	3175.00	15.75	326.06	3168.41	59.49	-40.03	3.00	0	HS
24	3200.00	16.50	326.06	3192.43	65.25	-43.91	3.00	0	HS
25	3225.00	17.25	326.06	3216.35	71.27	-47.96	3.00	0	HS
26	3250.00	18.00	326.06	3240.18	77.55	-52.19	3.00	0	HS
27	3275.00	18.75	326.06	3263.90	84.09	-56.59	3.00	360	HS
28	3300.00	19.50	326.06	3287.52	90.88	-61.16	3.00	360	HS
29	3325.00	20.25	326.06	3311.04	97.94	-65.90	3.00	360	HS
30	3350.00	21.00	326.06	3334.43	105.24	-70.82	3.00	0	HS
31	3375.00	21.75	326.06	3357.71	112.80	-75.91	3.00	0	HS
32	3400.00	22.50	326.06	3380.87	120.61	-81.16	3.00	360	HS
33	3425.00	23.25	326.06	3403.91	128.68	-86.59	3.00	0	HS
34	3450.00	24.00	326.06	3426.81	136.99	-92.18	3.00	0	HS
35	3475.00	24.75	326.06	3449.58	145.55	-97.94	3.00	0	HS
36	3500.00	25.50	326.06	3472.22	154.35	-103.87	3.00	0	HS

	M.D. [ft]	Inclination [°]	Azimuth [°]	T.V.D. [ft]	N+/S- [ft]	E+/W- [ft]	D.L.S. [°/100ft]	ToolFace [°]	T.F. Ref. [HS/GN]
37	3525.00	26.25	326.06	3494.71	163.41	-109.96	3.00	0	HS
38	3550.00	27.00	326.06	3517.06	172.70	-116.22	3.00	0	HS
39	3575.00	27.75	326.06	3539.26	182.24	-122.63	3.00	360	HS
40	3600.00	28.50	326.06	3561.31	192.01	-129.21	3.00	360	HS
41	3625.00	29.25	326.06	3583.20	202.03	-135.95	3.00	360	HS
42	3650.00	30.00	326.06	3604.93	212.28	-142.85	3.00	0	HS
43	3675.00	30.75	326.06	3626.50	222.77	-149.91	3.00	0	HS
44	3693.08	31.29	326.06	3642.00	230.50	-155.11	3.00	360	HS
45	6695.93	31.29	326.06	6208.01	1524.50	-1025.89	0.00		
46	6700.00	31.17	326.06	6211.49	1526.25	-1027.07	3.00	180	HS
47	6725.00	30.42	326.06	6232.96	1536.87	-1034.21	3.00	180	HS
48	6750.00	29.67	326.06	6254.60	1547.25	-1041.20	3.00	180	HS
49	6775.00	28.92	326.06	6276.40	1557.40	-1048.03	3.00	180	HS
50	6800.00	28.17	326.06	6298.37	1567.31	-1054.70	3.00	180	HS
51	6825.00	27.42	326.06	6320.48	1576.98	-1061.21	3.00	180	HS
52	6850.00	26.67	326.06	6342.75	1586.42	-1067.55	3.00	180	HS
53	6875.00	25.92	326.06	6365.16	1595.60	-1073.74	3.00	180	HS
54	6900.00	25.17	326.06	6387.72	1604.55	-1079.76	3.00	180	HS
55	6925.00	24.42	326.06	6410.41	1613.25	-1085.61	3.00	180	HS
56	6950.00	23.67	326.06	6433.24	1621.70	-1091.30	3.00	180	HS
57	6975.00	22.92	326.06	6456.20	1629.90	-1096.82	3.00	180	HS
58	7000.00	22.17	326.06	6479.29	1637.85	-1102.17	3.00	180	HS
59	7025.00	21.42	326.06	6502.51	1645.55	-1107.35	3.00	180	HS
60	7050.00	20.67	326.06	6525.84	1653.00	-1112.36	3.00	180	HS
61	7075.00	19.92	326.06	6549.29	1660.20	-1117.20	3.00	180	HS
62	7100.00	19.17	326.06	6572.84	1667.13	-1121.87	3.00	180	HS
63	7125.00	18.42	326.06	6596.51	1673.82	-1126.37	3.00	180	HS
64	7150.00	17.67	326.06	6620.28	1680.24	-1130.69	3.00	180	HS
65	7175.00	16.92	326.06	6644.15	1686.41	-1134.84	3.00	180	HS
66	7200.00	16.17	326.06	6668.12	1692.31	-1138.82	3.00	180	HS
67	7225.00	15.42	326.06	6692.17	1697.96	-1142.62	3.00	180	HS
68	7250.00	14.67	326.06	6716.31	1703.34	-1146.24	3.00	180	HS
69	7275.00	13.92	326.06	6740.54	1708.46	-1149.69	3.00	180	HS
70	7300.00	13.17	326.06	6764.84	1713.32	-1152.95	3.00	180	HS
71	7325.00	12.42	326.06	6789.22	1717.92	-1156.05	3.00	180	HS
72	7350.00	11.67	326.06	6813.67	1722.24	-1158.96	3.00	180	HS

	M.D. [ft]	Inclination [°]	Azimuth [°]	T.V.D. [ft]	N+/S- [ft]	E+/W- [ft]	D.L.S. [°/100ft]	ToolFace [°]	T.F. Ref. [HS/GN]
73	7375.00	10.92	326.06	6838.19	1726.31	-1161.69	3.00	180	HS
74	7400.00	10.17	326.06	6862.77	1730.10	-1164.25	3.00	180	HS
75	7425.00	9.42	326.06	6887.40	1733.63	-1166.62	3.00	180	HS
76	7450.00	8.67	326.06	6912.09	1736.89	-1168.82	3.00	180	HS
77	7475.00	7.92	326.06	6936.83	1739.88	-1170.83	3.00	180	HS
78	7500.00	7.17	326.06	6961.61	1742.61	-1172.66	3.00	180	HS
79	7525.00	6.42	326.06	6986.44	1745.06	-1174.31	3.00	180	HS
80	7550.00	5.67	326.06	7011.30	1747.25	-1175.78	3.00	180	HS
81	7575.00	4.92	326.06	7036.19	1749.16	-1177.07	3.00	180	HS
82	7600.00	4.17	326.06	7061.11	1750.80	-1178.18	3.00	180	HS
83	7625.00	3.42	326.06	7086.06	1752.18	-1179.10	3.00	180	HS
84	7650.00	2.67	326.06	7111.02	1753.28	-1179.84	3.00	180	HS
85	7675.00	1.92	326.06	7136.00	1754.11	-1180.40	3.00	180	HS
86	7700.00	1.17	326.06	7160.99	1754.67	-1180.78	3.00	180	HS
87	7725.00	0.42	326.06	7185.99	1754.96	-1180.97	3.00	180	HS
88	7739.01	0.00	148.74	7200.00	1755.00	-1181.00	0.00		
89	10739.01	0.00	0.00	10200.00	1755.00	-1181.00	0.00		

# Yates Petroleum Corporation

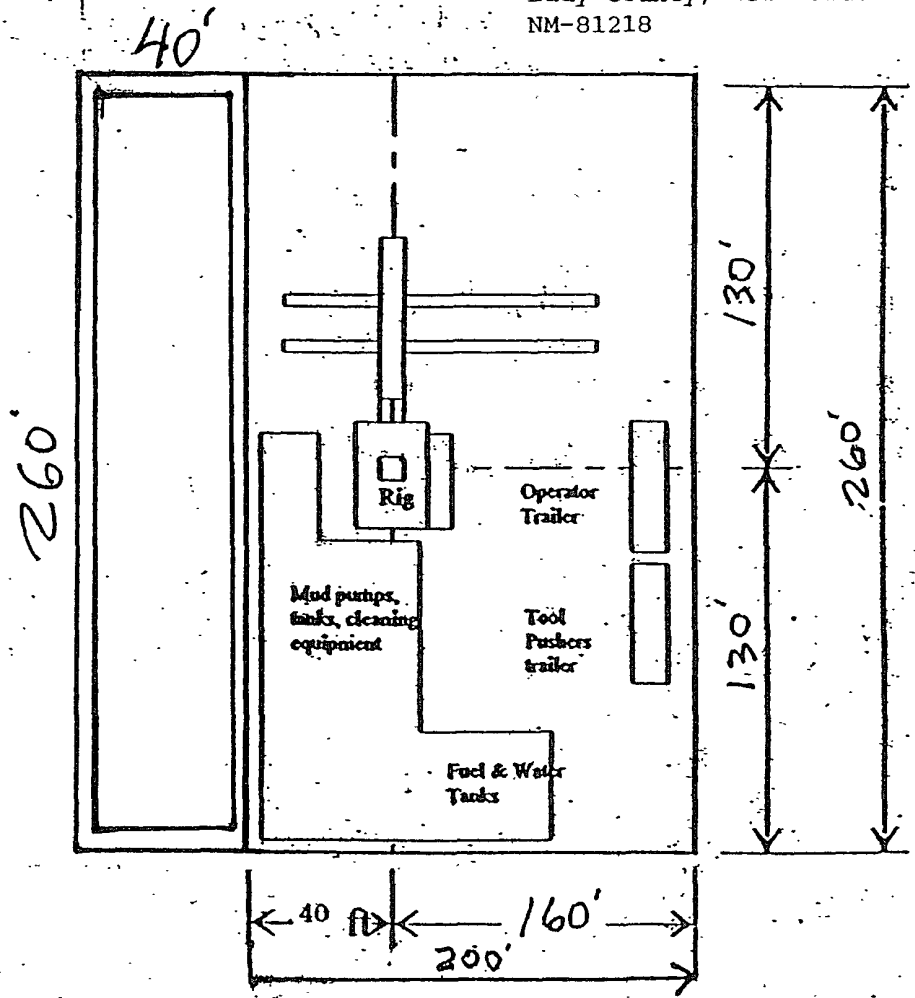
Location Layout for Permian Basin  
Up to 12,000'



*See CDR's*

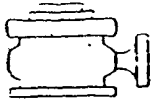
**Yates Petroleum Corporation**  
105 SOUTH 4th STREET  
ARTESIA, NEW MEXICO 88210

Brannigan ANF Federal #7  
2415' FNL and 2119' FEL Surface Loc.  
660' FNL and 1980' FWL Bottom Hole.  
Section 6, T22S-R24E  
Eddy County, New Mexico  
NM-81218



Distance from Well Head to Reserve Pit will vary between rigs

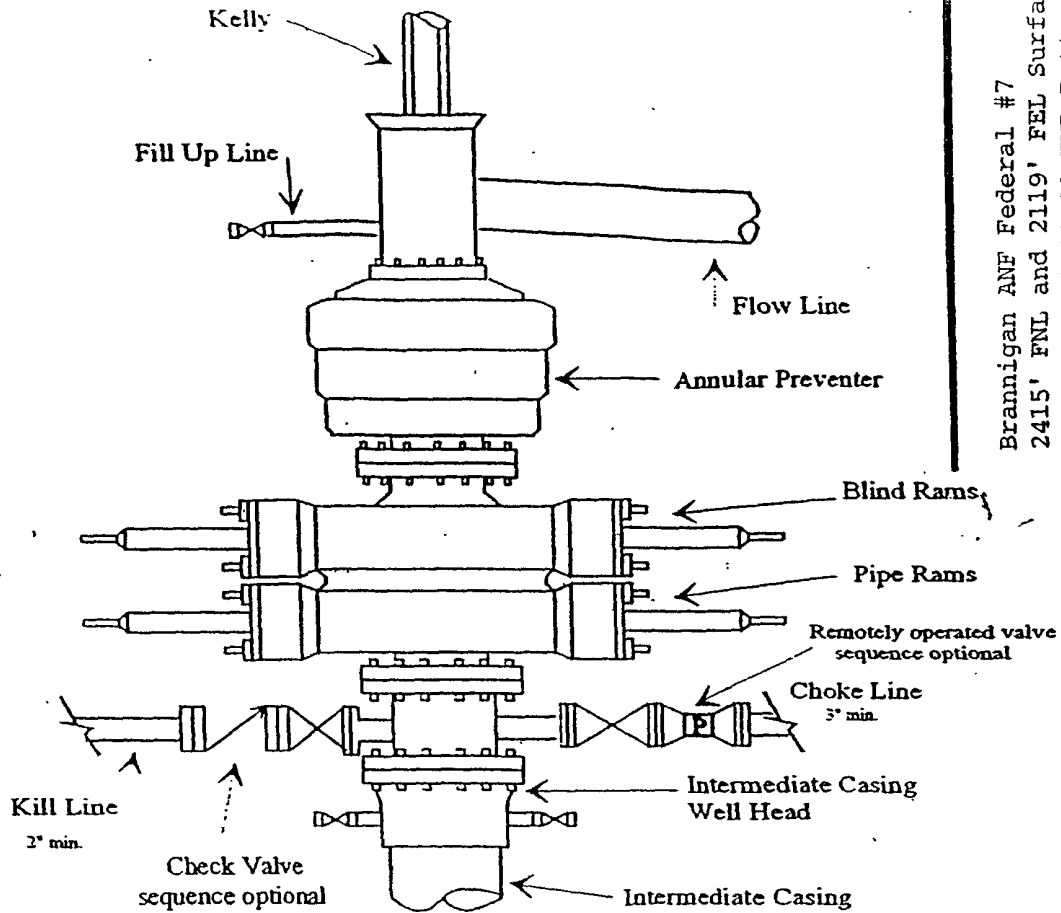
The above dimension should be a maximum



# Yates Petroleum Corporation

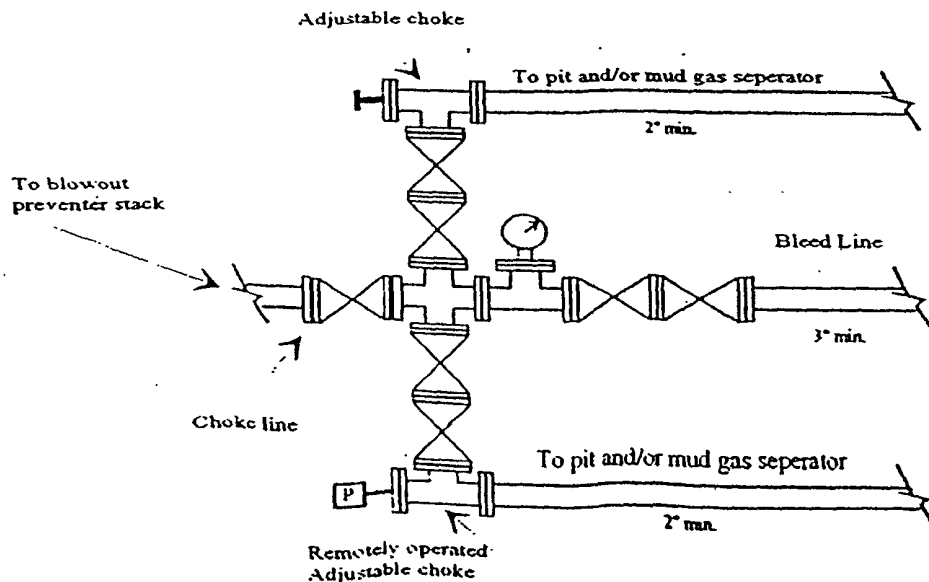
BOP-4

## Typical 5,000 psi Pressure System Schematic Annular with Double Ram Preventer Stack



Brannigan ANF Federal #7  
 2415' FNL and 2119' FEL Surface Loc.  
 660' FNL and 1980' FWL Bottom Hole.  
 Section 6, T22S-R24E  
 Eddy County, New Mexico  
 NM-81218

### Typical 5,000 psi choke manifold assembly with at least these minimum features



# **Yates Petroleum Corporation**

**105 S. Fourth Street  
Artesia, NM 88210**

## **Hydrogen Sulfide (H<sub>2</sub>S) Contingency Plan**

**For**

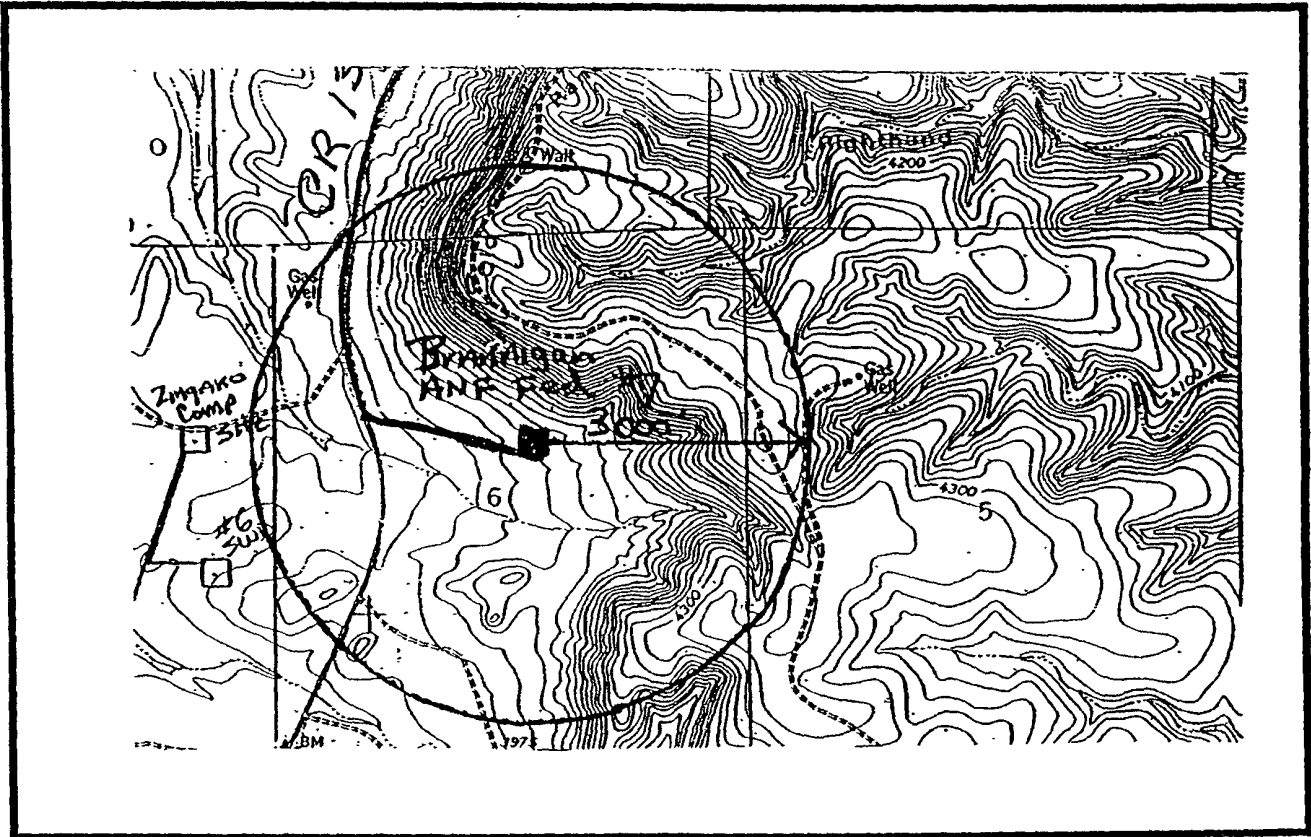
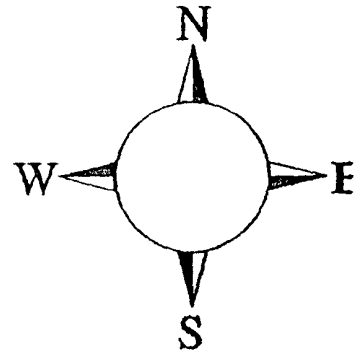
### **Brannigan ANF Federal #7**

**2415' FNL and 2119' FEL Surface Location  
660' FNL and 1980' FWL Bottom Hole Location  
Section-6, T-22S, R-24E  
Eddy County NM**



## Brannigan ANF Federal #7 Location

This is an open drilling site. H<sub>2</sub>S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H<sub>2</sub>S, including warning signs, wind indicators and H<sub>2</sub>S monitor.



Assumed 100 ppm H<sub>2</sub>S @ 3000'  
100 ppm H<sub>2</sub>S concentration and trigger set point of this plan.

***Yates Petroleum Corporation Phone Numbers***

---

YPC Office .....	(505) 748-1471
Pinson McWhorter/Operations Manager .....	(505) 748-4189
Darrel Atkins/Production Manager .....	(505) 748-4204
Ron Beasley/Prod Superintendent .....	(505) 748-4210
Al Springer/Drilling .....	(505) 748-4225
Paul Hanes/Prod. Foreman/Roswell .....	(505) 624-2805
Jim Krogman/Drilling Superintendent.....	(505) 748-4215
Artesia Answering Service .....	(505) 748-4302
(During non-office hours)	

**Agency Call List**

**Eddy County (505)**

**Artesia**

State Police.....	746-2703
City Police.....	746-2703
Sheriff's Office .....	746-9888
Ambulance .....	911
Fire Department .....	746-2701
LEPC (Local Emergency Planning Committee) .....	746-2122
NMOCD.....	748-1283

**Carlsbad**

State Police.....	885-3137
City Police.....	885-2111
Sheriff's Office .....	887-7551
Ambulance .....	911
Fire Department .....	885-2111
LEPC (Local Emergency Planning Committee).....	887-3798
US Bureau of Land Management.....	887-6544

New Mexico Emergency Response Commission (Santa Fe)	(505)476-9600
24 HR .....	(505) 827-9126
National Emergency Response Center (Washington, DC)	...(800) 424-8802

**Other**

Boots & Coots IWC .....	1-800-256-9688 or (281) 931-8884
Cudd Pressure Control.....	(915) 699-0139 or (915) 563-3356
Halliburton .....	(505) 746-2757
B. J. Services.....	(505) 746-3569

Flight For Life -4000 24th St, Lubbock, TX .....	(806) 743-9911
Aerocare -Rr 3 Box 49f, Lubbock, TX .....	(806) 747-8923
Med Flight Air Amb 2301 Yale Blvd SE #D3, Albuq, NM .....	(505) 842-4433
S B Air Med Svc 2505 Clark Carr Loop SE, Albuq, NM .....	(505) 842-4949

**YATES PETROLEUM CORPORATION  
BRANNIGAN "ANF" FEDERAL #7  
SURFACE: 2415' FNL AND 2119' FEL  
BOTTOM HOLE: 660' FNL AND 1980' FWL  
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.

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 H<sub>2</sub>S 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 H<sub>2</sub>S scavengers in the drilling fluid. A mud gas separator will be utilized when H<sub>2</sub>S 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 H<sub>2</sub>S 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 H<sub>2</sub>S kicks. Additionally, a SO<sub>2</sub> 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 H<sub>2</sub>S 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 H<sub>2</sub>S is encountered during a drill stem test, essential personnel will mask up and determine H<sub>2</sub>S concentration. The recovery will then be reversed to flare pit. Pulling of test tools will be conducted in a safe manner.

**MULTI-POINT SURFACE USE AND OPERATIONS PLAN**  
**Yates Petroleum Corporation**  
**Brannigan ANF Federal #7**  
2415' FNL and 2119 FEL Surface location  
660' FNL & 1980' FWL Bottom Hole Location  
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 well site is located approximately 31 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 to Highway 137 (Scenic Byway). Turn west on Highway 137 and go approximately 12 miles. Turn east on lease road and go approximately .4 of a mile to existing well pad for the Brannigan ANF Federal #3. This well location will be modified to accommodate the Brannigan ANF Federal #7 and the #8

2. PLANNED ACCESS ROAD

There will be no new access road. However the existing road will be upgraded for approximately .4 of a mile from the point of origin to the southwest corner of the proposed well location.

3. LOCATION OF EXISTING WELL

- A. There is drilling activity within a one-mile radius of the well site.
- B. Exhibit D shows existing wells within a one-mile radius of the proposed well site.

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:

The dirt contractor will locate closest pit and will obtain any permits and materials 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 landfill. Burial on site is not approved.

8. ANCILLARY FACILITIES: None.

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 well site 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: Federal Surface, Administered by the 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.

13. OPERATOR'S REPRESENTATIVE

A. Through A.P.D. Approval:

Cy Cowan, Regulatory Agent  
Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, New Mexico 88210  
Phone (505) 748-1471

B. Through Drilling Operations,  
Completions and Production:

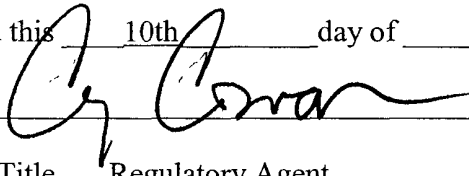
Ray Stall , Operations Manager  
Yates Petroleum Corporation  
105 South Fourth Street  
Artesia, New Mexico 88210  
Phone (505) 748-1471

CERTIFICATION  
YATES PETROLEUM CORPORATION  
Brannigan ANF Federal #7

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 10th day of September, 2007.

Name



Position Title Regulatory Agent

Address 105 South Fourth Street, Artesia, NM 88210

Telephone 505-748-4372

Field Representative (if not above signatory) Jim Krogman

Address (if different from above) Same

Telephone (if different from above) 505-748-4215

E-mail (optional) \_\_\_\_\_



## V. SPECIAL REQUIREMENT(S)

### **Cave & Karst**

#### **Cave/Karst Surface Mitigation**

The following stipulations will be applied to minimize impacts during construction, drilling and production.

#### **Berming:**

Any tank batteries will be constructed and bermed large enough to contain any spills that may occur.

Bermed areas will be lined with rip-stop padding to prevent tears or punctures in liners and lined with a permanent 20 mil plastic liner.

#### **Cave/Karst Subsurface Mitigation**

The following stipulations will be applied to protect cave/karst and ground water concerns:

#### **Rotary Drilling with Fresh Water:**

Rotary drilling techniques in cave or karst areas will include the use of fresh water as a circulating medium in zones where caves or karst features are expected. Use depth to the deepest expected fresh water as listed in the geologist report.

#### **Directional Drilling:**

Kick off for directional drilling will occur at least 100 feet below the bottom of the cave occurrence zone as identified in the geologic report.

#### **Casing:**

All casing will meet or exceed National Association of Corrosion Engineers specifications pertaining to the geology of the location and be run to American Petroleum Institute and BLM standards.

#### **Lost Circulation:**

ALL lost circulation zones from the surface to the base of the cave occurrence zone will be logged and reported.

Regardless of the type of drilling machinery used, if a void (bit drops) of four feet or more and circulation losses greater than 75 percent occur simultaneously while drilling in any cave-bearing zone, drilling operations will immediately stop and the BLM will be notified by the operator. The BLM will assess the consequences of the situation and work with operator on corrective actions to resolve the problem.

#### **Abandonment Cementing:**

Upon well abandonment the well bore will be cemented completely from 100 feet below the bottom of the cave bearing zone to the surface.

## VII. DRILLING

### A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 2 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. A Hydrogen Sulfide (H<sub>2</sub>S) Drilling Plan should be activated 500 feet prior to drilling into the **Canyon** formation. **Hydrogen Sulfide has been reported in the Township to the south measuring 8000 ppm in gas streams and 100 ppm in STVs.**
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

1. The 9-5/8 inch surface casing shall be set at **approximately 2500 feet (within the lower part of the San Andres to isolate the Capitan Reef from the potential hydrocarbon bearing Glorietta formation)** and cemented to the surface. **Fresh water/air mist mud approved to this depth, but not air drilling.**
  - 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 action will be done prior to drilling out that string.

**High cave/karst.**

**Possible lost circulation in the San Andres and Wolfcamp formations.**

**Possible high pressure gas bursts in the Wolfcamp and over pressured in the Pennsylvanian Section.**

2. The minimum required fill of cement behind the 7 inch production casing is:

- Cement to surface **due to high cave/karst.** If cement does not circulate see B.1.a-d above.

**NOTE: Operator is indicating that 7" casing may have to be set early if severe lost circulation occurs in the Canyon formation. If this occurs, operator will submit a sundry with casing and cement design for approval. Approval for revision must be received prior to drilling out 7" shoe.**

3. 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. The appropriate BLM office shall be notified a minimum of 2 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.

#### **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.

**Engineer on call phone (after hours):      Carlsbad: (575) 706-2779**

**WWI 111307**