RESUBMITTAL

OCD-ARTESIA

ATS-07-732

DEC 17 2007

OCD-ARTESIA

1306

Form 3160-3
(February 2005)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

S

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: **NM-81218**

6. If Indian, Allottee or Tribe Name:

1a. Type of Work: [X] DRILL per operator 11-1307 [ ] REENTER

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

1b. Type of Well: ? [X] ~~Oil Well~~ [X] Gas Well [ ] Other [ ] Single Zone [ ] Multiple Zone

8. Lease Name and Well No.: **Brannigan ANF Federal #8**

2. Name of Operator: **Yates Petroleum Corporation 025575**

9. API Well No.: 30-015-35991

3a. Address: **105 South Fourth Street, Artesia, NM 88210**

3b. Phone No. *(include area code)*: **505-748-1471**

10. Field and Pool, or Exploratory: **Indian Basin Upper Penn Assoc.**

4. Location of well *(Report location clearly and In accordance with any State requirements.*)*
At surface: 2305' FNL and 2130' FWL Carlsbad Controlled Water Basin

At proposed prod. zone: **1980' FSL and 660' FWL, Lot 6**

11. Sec., T., R., M., or Blk. And Survey or Area: **Section 6, T 22 S, R 24 E**

14. Distance in miles and direction from the nearest town or post office*: **Approximately 31 miles Northwest of Carlsbad, NM**

12. County or Parish: **Eddy**

13. State: **NM**

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drlg. unit line, if any)	16. No. of acres in lease	17. Spacing Unit dedicated to this well
2310'	660.09	320 W/2
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/ BIA Bond No. on file
2600'	9900'	NATIONWIDE BOND #NMB000434
21. Elevations (Show whether DF, KDB, RT, GL, etc)	22. Aproximate date work will start*	23. Estimated duration
4023GL	ASAP	

24. Attachments

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

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office)
4. Bond to cover the operations unless covered by 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)*	Date
Cy Cowan	Cy Cowan	9/10/2007

Title: **Regulatory Agent**

Approved By *(Signature)*	Name *(Printed/ Typed)*	Date
/s/ Don Peterson	/s/ Don Peterson	DEC 12 2007

Title	Office
FIELD MANAGER	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

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

[1] API Number	[2] Pool Code	[3] Pool Name
	33685	Indian Basin Upper Penn Assoc.

[4] Property Code	[5] Property Name	[6] Well Number
14056	Brannigan ANF Federal	8

[7] OGRID No.	[8] Operator Name	[9] Elevation
025575	Yates Petroleum Corporation	4023

[10] Surface Location

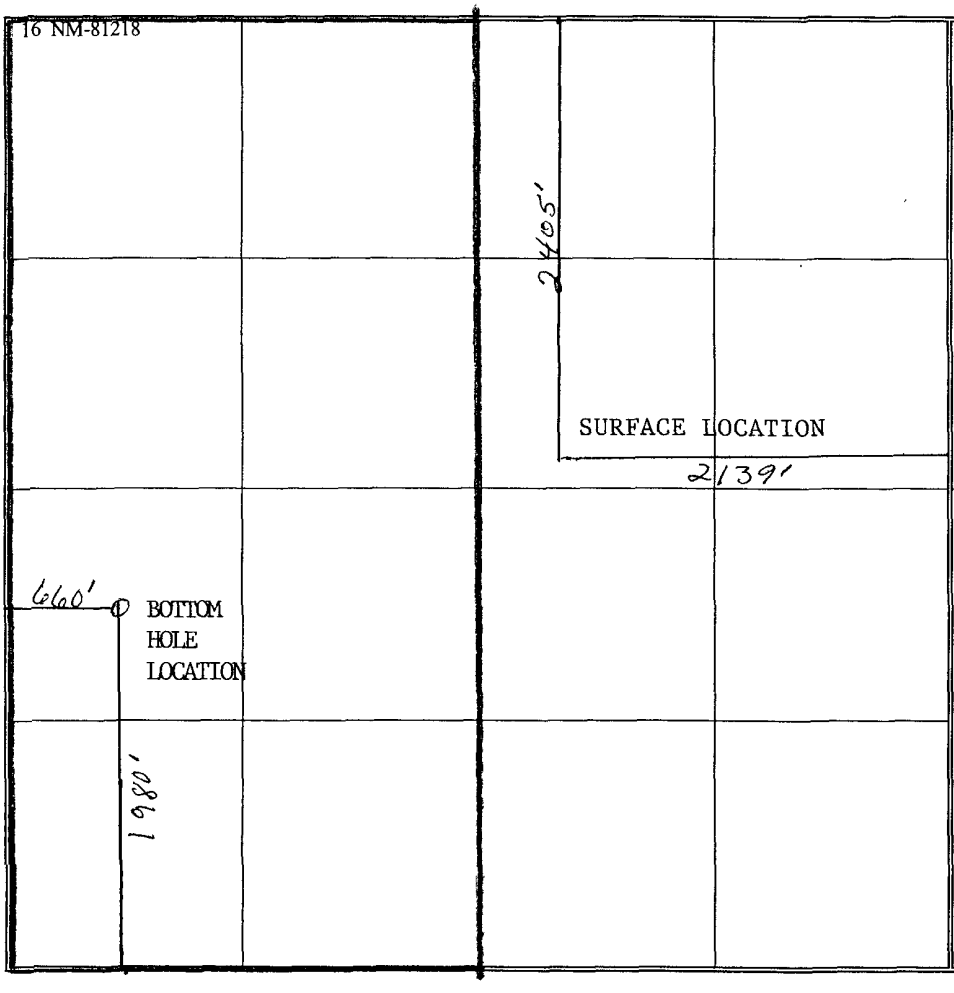
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
G	6	22 S	24 E		2405	North	2139	East	Eddy

[11] 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 6	6	22 S	24 E		1980	South	660	West	Eddy

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320 W/2			

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.



[17] 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

9/11/07

Signature Date

Cy Cowan, Regulatory Agent
Printed Name

[18] 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.

Date of Survey

Signature and Seal of Professional Surveyor:

REFER TO ORIGINAL PLAT

Certificate Number

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

District II
811 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	Pool Name
		Indian Basin Upper Penn Assoc.

Property Code	Property Name	Well Number
	BRANNIGAN ANF FEDERAL	*8*

OGRID No.	Operation Name	Elevation
025575	*YATES PETROLEUM CORPORATION*	*4023*

Surface Location

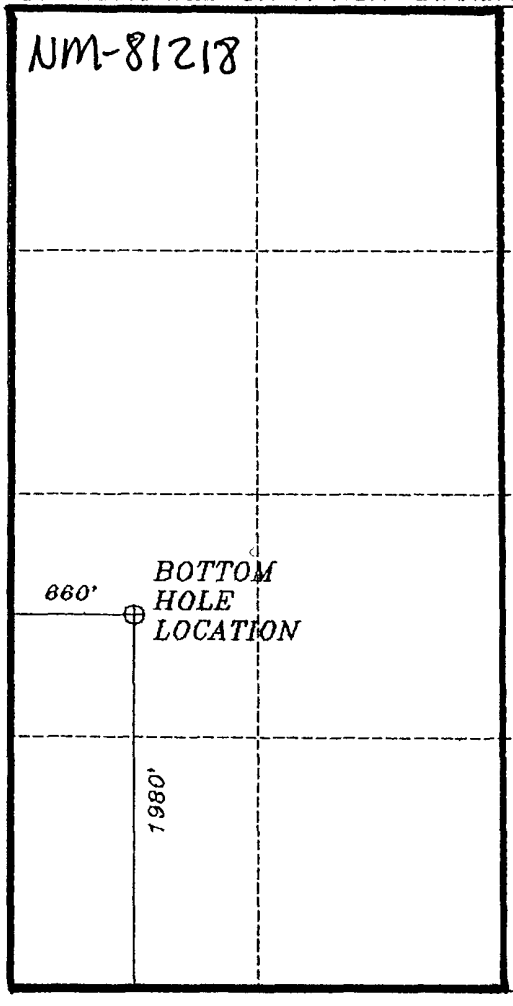
UL or Lot No.	Section	Township	Range	Lot Idn.	Feet from the	North/South line	Feet from the	East/West line	County
G	*6*	*22-S*	*24-E*		*2405*	*NORTH*	*2139*	*EAST*	*EDDY*

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 6	*6*	*22-S*	*24-E*		*1980*	*SOUTH*	*660*	*WEST*	*EDDY*

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
320			

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



OPERATOR CERTIFICATION

I HEREBY CERTIFY THAT THE INFORMATION HEREIN IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

Signature: Cy Cowan

Printed Name: Cy Cowan

Title: Regulatory Agent

Date: August 19, 2003

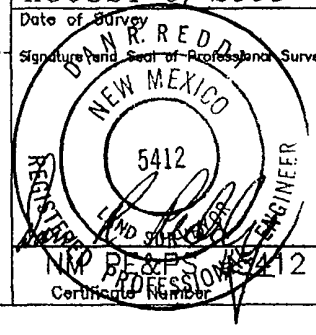
SURVEYOR CERTIFICATION

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 KNOWLEDGE AND BELIEF.

AUGUST 6, 2003

Date of Survey

Signature and Seal of Professional Surveyor



NM PE&PS 5412

Certificate Number

YATES PETROLEUM CORPORATION
Brannigan ANF Federal #8
2405' FNL and 2139 FELSurface Location
1980' FSL and 660' 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	8672'-Gas Pay
San Andres	840'-Oil Pay	Atoka	9058'-Gas Pay
Glorietta	2260'-Oil Pay	Upper Morrow	9415'-Gas Pay
2nd Bone Springs	3965'-Oil Pay	Mid Morrow	9475'-Gas Pay
3rd Bone Springs	6598'-Oil Pay	Lower Morrow	9645'-Gas Pay
Wolfcamp	6753'-Gas Pay	Base Morrow	9755'-Gas Pay
Cisco Canyon Dolomite	7525'-Gas Pay	TD	9900'-Gas Pay
Base of Dolomite	7975'-Gas Pay		
Lower Canyon Lime	8060'-Gas Pay		

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 5/8" per oper. 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)

see COA

Hole Size	Casing Size	Wt./Ft	Grade	Coupling	Interval	Length
14 ¾"	9 5/8"	36#	J-55	ST&C	0-2350'	2350'
8 ¾"	7.0"	26#	L-80	LT&C	0-800'	800'
8 ¾"	7.0"	26#	J-55	LT&C	800'-2100'	1300'
8 ¾"	7.0"	23#	J-55	LT&C	2100'-4900'	1300'
8 ¾"	7.0"	26#	J-55	LT&C	4900'-7100'	2200'
8 ¾"	7.0"	26#	L-80	LT&C	7100'-9300'	2200'
8 ¾	7.0"	26#	HCP-110	LT&C	9300'-9900'	600'

replaced 11-13-07

Possible set 7" early if severe lost circ. in Canyon. See COA
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) TOC Surface

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. TOC 1800' ← see COA

5. MUD PROGRAM AND AUXILIARY EQUIPMENT:

Interval	Type	Weight	Viscosity	Fluid Loss
0-2350'	FW/Air Mist	8.4	28	N/C
2350'-7500'	Cut Brine	8.6-9.0	28	N/C
7500'-9650'	Cut Brine/Starch/S Gel	9.0-9.4	28-32	<12cc
9650'-TD	Salt Gel/Starch	9.4-9.8	34-38	<10cc

see COA

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:	2350'	Anticipated Max. BHP:	1050 PSI
From: 2350'	TO:	9900'	Anticipated Max. BHP:	5050 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.

YATES PETROLEUM CORPORATION
Brannigan ANG Federal #8
2405' FNL and 2139' FEL Surface Location
1980' FSL and 660' FWL Bottom Hole Location
Section 6, T22S-R24E
Eddy County, New Mexico
Directional Drilling Procedure

Yates Petroleum Corporation proposes that the Brannigan ANG Federal #8 will be drilled vertically to a kick off point of 2,750'. A gyro survey will then be run. Will pick up mud motor and MWD system. Angle will be built at 3 degrees per 100' until an angle of 33.74 degrees and an azimuth of 248.6 degrees is reached. The angle and azimuth will be maintained as per above until 7,380' Measured Depth is reached. At this point the angle will be dropped at the rate of 3 degrees per 100' until the well bore is vertical this is projected to be at 8,404' Measured Depth. The wellbore will be kept at vertical and drilled to a TD of 10, 624' Measured Depth (TVD=9,900').

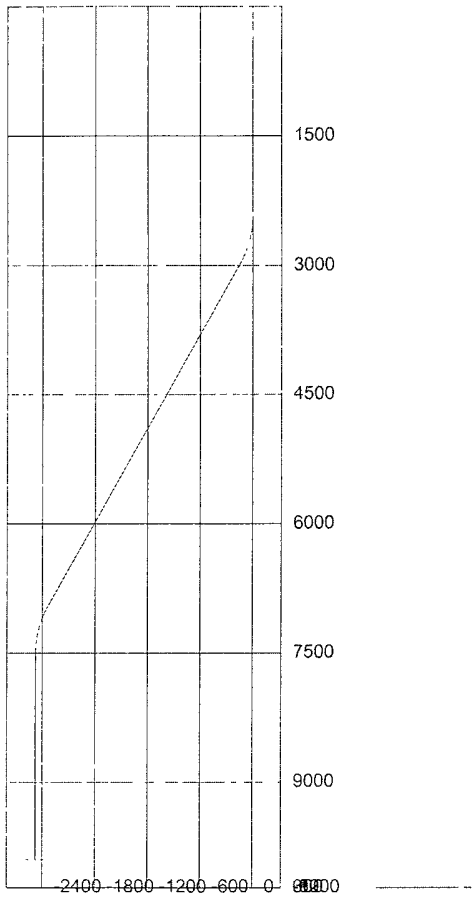
Simulated Survey - C:\Program Files\Drilling Toolbox 2001\Templates\Visual Wellbore\Directional\brannigan8.wpp

	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	2400.00	0.00	0.00	2400.00	0.00	0.00	5.00	250	GN
3	2425.00	1.25	250.16	2425.00	-0.09	-0.26	5.00	0	HS
4	2450.00	2.50	250.16	2449.98	-0.37	-1.03	5.00	0	HS
5	2475.00	3.75	250.16	2474.95	-0.83	-2.31	5.00	360	HS
6	2500.00	5.00	250.16	2499.87	-1.48	-4.10	5.00	0	HS
7	2525.00	6.25	250.16	2524.75	-2.31	-6.41	5.00	0	HS
8	2550.00	7.50	250.16	2549.57	-3.33	-9.22	5.00	360	HS
9	2575.00	8.75	250.16	2574.32	-4.53	-12.55	5.00	0	HS
10	2600.00	10.00	250.16	2598.99	-5.91	-16.38	5.00	360	HS
11	2625.00	11.25	250.16	2623.56	-7.47	-20.71	5.00	0	HS
12	2650.00	12.50	250.16	2648.02	-9.22	-25.55	5.00	360	HS
13	2675.00	13.75	250.16	2672.37	-11.14	-30.89	5.00	360	HS
14	2700.00	15.00	250.16	2696.59	-13.25	-36.73	5.00	0	HS
15	2725.00	16.25	250.16	2720.66	-15.53	-43.06	5.00	0	HS
16	2750.00	17.50	250.16	2744.58	-18.00	-49.89	5.00	0	HS
17	2775.00	18.75	250.16	2768.34	-20.64	-57.21	5.00	360	HS
18	2800.00	20.00	250.16	2791.93	-23.45	-65.01	5.00	360	HS
19	2825.00	21.25	250.16	2815.32	-26.44	-73.29	5.00	0	HS
20	2850.00	22.50	250.16	2838.52	-29.60	-82.05	5.00	360	HS
21	2875.00	23.75	250.16	2861.51	-32.93	-91.29	5.00	360	HS
22	2900.00	25.00	250.16	2884.29	-36.43	-100.99	5.00	360	HS
23	2925.00	26.25	250.16	2906.83	-40.10	-111.16	5.00	360	HS
24	2950.00	27.50	250.16	2929.13	-43.94	-121.79	5.00	360	HS
25	2975.00	28.75	250.16	2951.17	-47.93	-132.88	5.00	360	HS
26	3000.00	30.00	250.16	2972.96	-52.10	-144.41	5.00	0	HS
27	3007.14	30.36	250.16	2979.13	-53.31	-147.79	0.00		
28	7604.16	30.36	250.16	6945.87	-841.69	-2333.21	0.00		
29	7625.00	29.32	250.16	6963.95	-845.20	-2342.96	5.00	180	HS
30	7650.00	28.07	250.16	6985.88	-849.28	-2354.25	5.00	180	HS
31	7675.00	26.82	250.16	7008.06	-853.19	-2365.09	5.00	180	HS
32	7700.00	25.57	250.16	7030.50	-856.93	-2375.47	5.00	180	HS
33	7725.00	24.32	250.16	7053.16	-860.51	-2385.38	5.00	180	HS
34	7750.00	23.07	250.16	7076.06	-863.92	-2394.83	5.00	180	HS
35	7775.00	21.82	250.16	7099.16	-867.15	-2403.81	5.00	180	HS
36	7800.00	20.57	250.16	7122.47	-870.22	-2412.31	5.00	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]
37	7825.00	19.32	250.16	7145.97	-873.11	-2420.33	5.00	180	HS
38	7850.00	18.07	250.16	7169.66	-875.83	-2427.86	5.00	180	HS
39	7875.00	16.82	250.16	7193.51	-878.37	-2434.91	5.00	180	HS
40	7900.00	15.57	250.16	7217.51	-880.74	-2441.47	5.00	180	HS
41	7925.00	14.32	250.16	7241.67	-882.93	-2447.53	5.00	180	HS
42	7950.00	13.07	250.16	7265.96	-884.93	-2453.10	5.00	180	HS
43	7975.00	11.82	250.16	7290.37	-886.76	-2458.16	5.00	180	HS
44	8000.00	10.57	250.16	7314.89	-888.41	-2462.73	5.00	180	HS
45	8025.00	9.32	250.16	7339.52	-889.87	-2466.79	5.00	180	HS
46	8050.00	8.07	250.16	7364.23	-891.15	-2470.34	5.00	180	HS
47	8075.00	6.82	250.16	7389.02	-892.25	-2473.38	5.00	180	HS
48	8100.00	5.57	250.16	7413.87	-893.17	-2475.92	5.00	180	HS
49	8125.00	4.32	250.16	7438.78	-893.90	-2477.95	5.00	180	HS
50	8150.00	3.07	250.16	7463.73	-894.44	-2479.46	5.00	180	HS
51	8175.00	1.82	250.16	7488.70	-894.80	-2480.46	5.00	180	HS
52	8200.00	0.57	250.16	7513.70	-894.98	-2480.95	5.00	180	HS
53	8211.30	0.05	250.95	7525.00	-895.00	-2481.00	0.00		
54	10586.30	0.00	0.00	9900.00	-895.00	-2481.00	0.00		

3D³ Directional Drilling Planner - 3D View

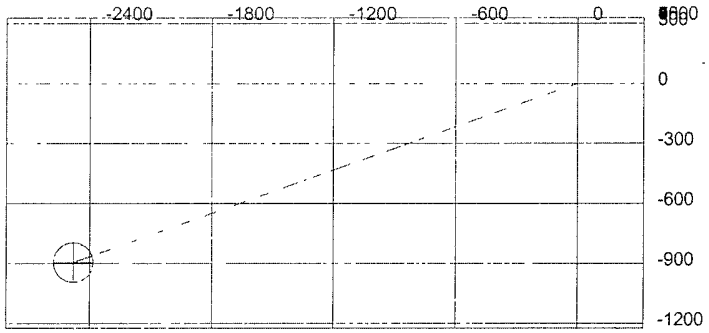
Company: **Yates Petroleum Corporation**
Well: **Brannigan ANF Federal #8**

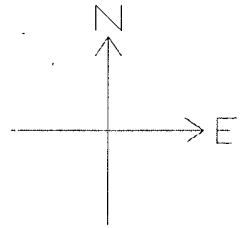


File: C:\Program Files\Drilling Toolbox 2001\Templates\Visual Wellbore\Directional\brannigan8.wpp

3D³ Directional Drilling Planner - 3D View

Company: **Yates Petroleum Corporation**
Well: **Brannigan ANF Federal #8**





File: C:\Program Files\Drilling Toolbox 2001\Templates\Visual Wellbore\Directional\brannigan8.wpp

Production

1st segment	10,586 ft to 9,300 ft			Make up Torque ft-lbs			Total ft = 1,286
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
7 inches	26 #/ft	HCP-110	LT&C	6930	5200	8660	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
7,800 psi	9,950 psi	693 ,000 #		830 ,000 #		6.151	

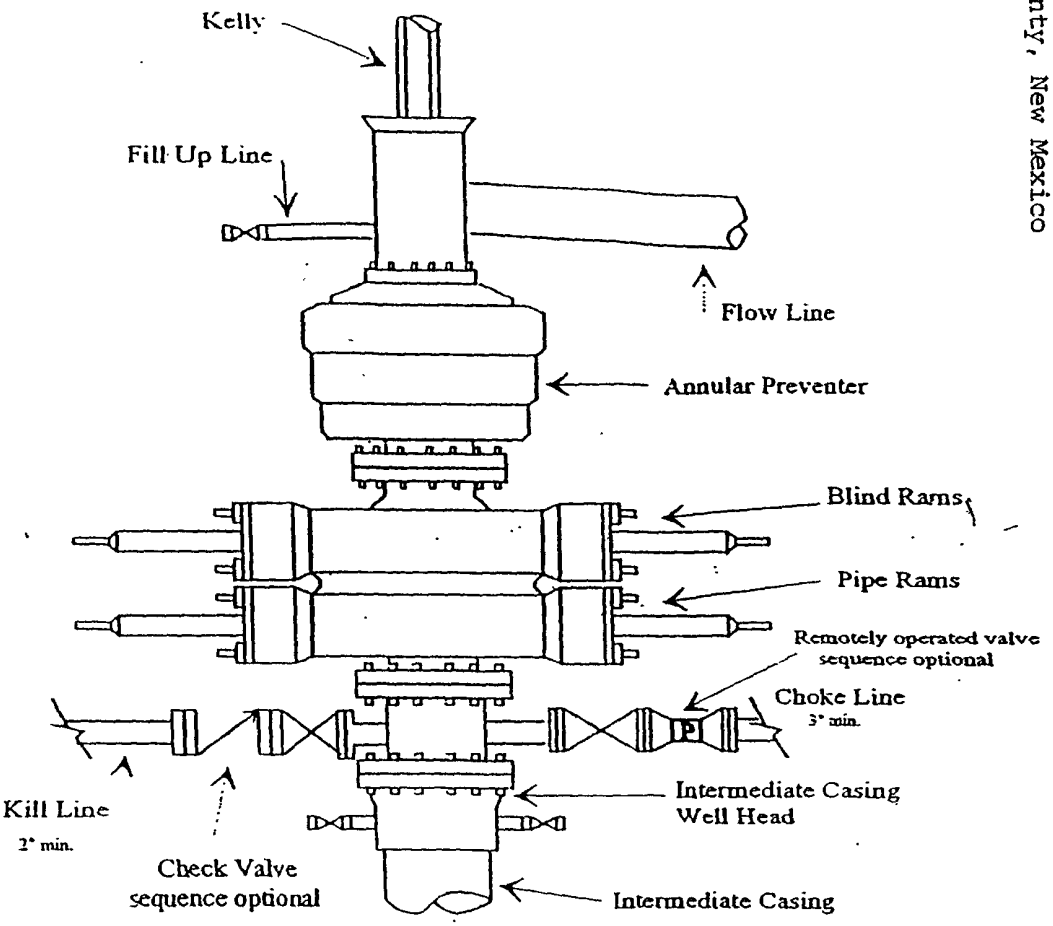
2nd segment	9,300 ft to 1,600 ft			Make up Torque ft-lbs			Total ft = 7,700
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
7 inches	26 #/ft	L-80	LT&C	5110	3830	6390	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
5,410 psi	7,240 psi	511 ,000 #		604 ,000 #		6.151	

3rd segment	1,600 ft to 0 ft			Make up Torque ft-lbs			Total ft = 1,600
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
7 inches	26 #/ft	HCP-110	LT&C	6930	5200	8660	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
7,800 psi	9,950 psi	693 ,000 #		830 ,000 #		6.151	

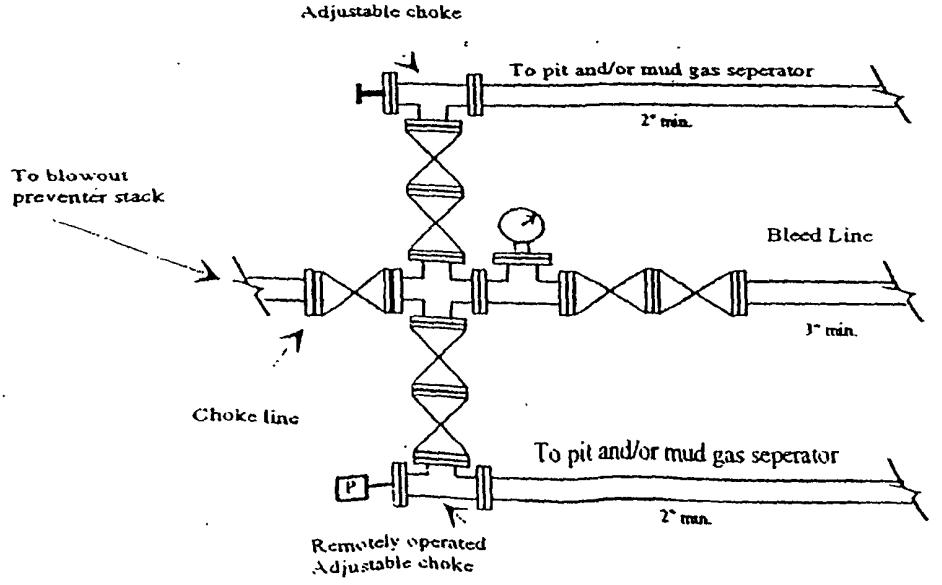
Yates Petroleum Corpo[illegible]on

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

Brannigan ANF Federal #8
2405' FNL and 2139' FEL Surface Loc.
1980' FSL and 660' FWL Bottom Hole.
Section 6, T22S-R24E
Eddy County, New Mexico
NM-81218



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



YATES PETROLEUM CORPORATION
BRANNIGAN "ANF" FEDERAL #8
SURFACE: 2405' FNL AND 2139' FEL
BOTTOM HOLE: 1980' FSL AND 660' 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 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.

Yates Petroleum Corporation

105 S. Fourth Street
Artesia, NM 88210

Hydrogen Sulfide (H_2S) Contingency Plan

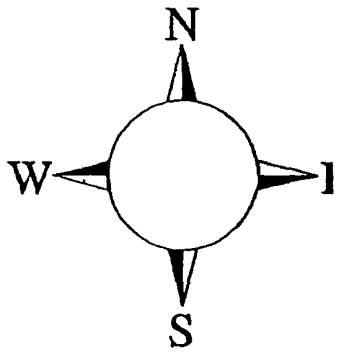
For

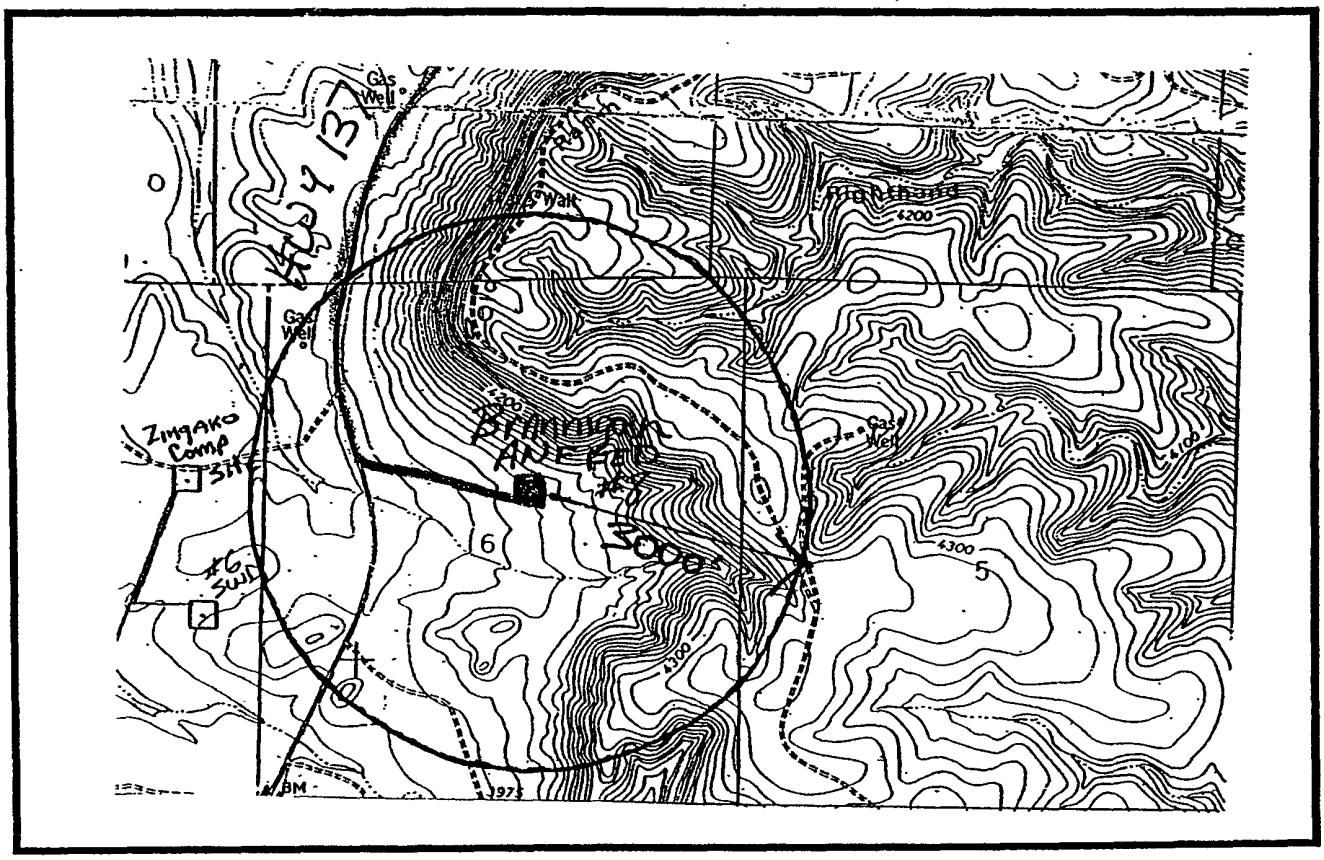
Brannigan ANF Federal #8

2405' FNL and 2139' FEL Surface Location
1980' FSL and 660' FWL Bottom Hole Location
Section-6, T-22S, R-24E
Eddy County NM

Brannigan ANF Federal #8 Location

This is an open drilling site. H_2S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H_2S, including warning signs, wind indicators and H_2S monitor.





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

MULTI-POINT SURFACE USE AND OPERATIONS PLAN
Yates Petroleum Corporation
Brannigan ANF Federal #8
2405' FNL and 2139' FEL Surface location
1980' FSL and 660' 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 (Scenick Byeway). 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 #8

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 then 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.

Record Keeping:
The Operator will track customary drilling activities, including the rate of penetration, pump pressure, weight on bit, bit drops, percent of mud returns, and presence of absence of cuttings returning to the surface. As part of customary record keeping, each detectable void or sudden increase in the rate of penetration not attributable to a change in the formation type should be documented and evaluated as it is encountered.

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 (H2S) 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

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

VRM Facility Requirement
Low-profile tanks not greater than ten-feet-high shall be used.

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: