HOBBS OCD

13-685

OCD Hobbs

OCT 06 2014

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Form 3160-3
(March 2012)

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 2014

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

# APPLICATION FOR PERMIT TO DRILL OR REENTER

| | |
|---|---|
| 1a. Type of work: ☑ DRILL ☐ REENTER | 5. Lease Serial No. NM-110835 |
| | 6. If Indian, Allotee or Tribe Name |
| | 7. If Unit or CA Agreement, Name and No. |
| 1b. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone | 8. Lease Name and Well No. BTO (313766) Resolute Federal #1H |
| 2. Name of Operator Yates Petroleum Corporation (25575) | 9. API Well No. 30-025-42214 |
| 3a. Address 105 S. Fourth St. Artesia, NM 88210 / 3b. Phone No. (include area code) 575-748-4120 | 10. Field and Pool, or Exploratory 2nd Bone Springs (97503) |
| 4. Location of Well (Report location clearly and in accordance with any State requirements.*) At surface 50' FNL & 440' FEL Unit A; At proposed prod. zone 330' FSL & 330' FEL Unit P | 11. Sec., T. R. M. or Blk. and Survey or Area Section 12, T25S-R32E |
| 14. Distance in miles and direction from nearest town or post office* 42 miles West of Jal, NM | 12. County or Parish Lea / 13. State NM |
| 15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 50' | 16. No. of acres in lease 1600 / 17. Spacing Unit dedicated to this well 160 |
| 18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1.5 miles NSD | 19. Proposed Depth 11200' Pilot Hole, 15696' ~~TD~~ 11000' TVD in H / 20. BLM/BIA Bond No. on file NMB000434 NMB000920 |
| 21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3522' | 22. Approximate date work will start* 08/31/2013 / 23. Estimated duration 30 days |

## 24. Attachments

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

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

| | | |
|---|---|---|
| 25. Signature [signature] | Name (Printed/Typed) Travis Hahn | Date 06/04/2013 |
| Title Land Regulatory Agent | | |
| Approved by (Signature) Steve Caffey | Name (Printed/Typed) | Date OCT 1 - 2014 |
| Title FIELD MANAGER | Office CARLSBAD FIELD OFFICE | |

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

*(Instructions on page 2)

CARLSBAD CONTROLLED WATER BASIN

KA 10/29/14

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

SEE ATTACHED FOR CONDITIONS OF APPROVAL

OCT 30 2014

**YATES PETROLEUM CORPORATION**
Resolute BTO Federal #1H
2590' FNL & 2200' FEL, Surface Hole, Section 24 –T25S-R32E
330' FSL & 2200' FEL, Bottom Hole, Section 13 –T25S-R32E
Lea County, New Mexico

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

| | | | |
|---|---|---|---|
| Rustler | 1000' | Brushy Canyon | 7800' Oil |
| Salado | 1320' | Bone Springs | 9030' Oil |
| Castile | 3580' | Upper Avalon | 9140' Oil |
| Base of Salt | 4710' | Lower Avalon | 9470' |
| Delaware | 4960' | Bone Spring SD/1 | 10040' Oil |
| Bell Canyon | 4980' Oil | Bone Spring SD/2 | 10620' |
| Cherry Canyon | 5940' Oil | Target SBSG | 11000' |
| | | Base SBSG | 11050' |

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

Water: Approx. 100' - 350'
Oil or Gas: Oil Zones: 4980', 5940', 7800', 9030', 9140', 10040'

3. Pressure Control Equipment: 3000 PSI BOPE with a 13.625" opening will be installed on the 13.375 casing and a 5000 PSI BOPE will be installed on the 9.625" casing. Pressure tests to 3000 PSI and held for 30 minutes will be conducted before drilling out from under all casing strings, which are set and cemented in place. BOP Preventers and equipment will be tested to the pressure approved in the APD. Test will be conducted by an Independent Tester, utilizing a test plug in the well head. Test will be held for 10" on each segment of the system ~~tested~~. Any leaks will be repaired at the time of test. Annular preventer will be tested to 50% of rated working pressure. Accumulator system will be inspected for correct pre charge pressures, and proper functionality, prior to connection to the BOP system. Blowout Preventer controls will be installed prior to drilling the surface plug and will remain in use until the well is completed or abandoned. Preventers 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.

See COA

4. 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.

1. THE PROPOSED CASING AND CEMENTING PROGRAM:

A. Casing Program: (All New)

| Hole Size | Casing Size | Wt./Ft | Grade | Coupling | Interval | Length |
|---|---|---|---|---|---|---|
| 17 1/2" | 13 3/8" | 48# | H-40/J-55 Hybrid | ST&C | 0'-~~1025'~~ 1100 | ~~1025'~~ |
| 12 1/4" | 9 5/8" | 40# | J-55 | LT&C | 0'-80' | 80' |
| 12 1/4" | 9 5/8" | 36# | J-55 | LT&C | 80'-3100' | 3020' |
| 12 1/4" | 9 5/8" | 40# | J-55 | LT&C | 3100'-4100' | 1000' |
| 12 1/4" | 9 5/8" | 40# | HCK-55 | LT&C | 4100'-~~5100'~~ 4900 | ~~1000~~ 800 |
| 8 3/4" | 5 1/2" | 17# | P-110 | Buttress Thread | 0'-15696' | 15696' |

See COA

See COA

Minimum Casing Design Factors: Burst 1.0, Tensile 1.8, Collapse 1.125

B. CEMENTING PROGRAM:

Surface Casing: Lead with 705 sacks of Class H, 10% expanding agent and 2% CaCl2 (WT.14.20 YLD 1.62). Tail with 200 sacks Class C + 2% CaCl2 (WT 14.80, YLD 1.34). Casing designed with 100% excess. TOC-Surface

Intermediate Casing: Lead with 1455 sacks of PozC 35:65:6 (WT 12.50 YLD 2.00). Tail with 200 sacks of Class C + 2% CaCl2 (WT. 14.80 YLD 1.34). Casing designed with 100% excess. TOC-Surface

Production Casing: Cement to be done in three stages with a DV/Stage Packer tool from 10000'-10500' and 7250'-7750' with cement volumes will be adjusted proportionately if DV tool is moved.

Stage 1 from 10500'-15696': Lead with 1255 sacks of Pecos Valley Lite (WT. 13.00 YLD 1.41), 30%CaCO, 3.2% Expansion additive, 2% Antifoam, .8% Retarder, 15 Fluid loss. Casing is designed with 35% excess. TOC-10500'.

Stage 2 from 7500'-10500': Lead with 370 sacks of PozC 35:65:6 (WT 12.50 YLD 2.00). Tail with 200 sacks of Pecos Valley Lite (WT 13.00, YLD 1.41), 30%CaCO, 3.2% Expansion additive, 2% Antifoam, .8% Retarder, 15 Fluid loss. Casing is designed with 35% excess. TOC-7500'.

Stage 3 from 4600'-7500': Lead with 355 sacks of PozC 35:65:6 (WT 12.50 YLD 2.00). Tail with 200 sacks of Pecos Valley Lite (WT 13.00, YLD 1.41), 30%CaCO, 3.2% Expansion additive, 2% Antifoam, .8% Retarder, 15 Fluid loss. Casing is designed with 35% excess. TOC-4600'.

Pilot hole will be drilled vertically to 11200'. Pilot hole will then be plugged with a 200' plug using Class H (YLD 0.94 WT 17.5) 100 sacks with 10% excess, and the additives being; Fresh Water 3.352 gal/sk, Dispersant 0.030 gal/sk, Retarder 0.070 gal/sk, Antifoam 0.020 gal/sk. A 600' kick off plug will then be placed from 10200' to 9600', plug will be Class H (YLD 0.94 WT 17.5) 360 sacks with 35% excess and the additives being; Fresh Water 3.352 gal/sk, Dispersant 0.030 gal/sk, Retarder 0.070 gal/sk, Antifoam 0.020 gal/sk. Well will be drilled vertically depth to 11200'. Well will be kicked off at approximately 10523' and directionally drilled at 12 degrees per 100' with an 8.75" hole to 11273' MD (11000' TVD). Hole will then be reduced to 8.5" and drilled to 15696' MD (11000' TVD) where 5.5" casing will be set and cemented. Penetration point of producing zone will be encountered at 527' FNL & 427' FEL, Section 32-24S-32E. Deepest TVD in the pilot hole is 11200' and in the lateral 11000'.

5. Mud Program and Auxiliary Equipment:

| Interval | Type | Weight | Viscosity | Fluid Loss |
|---|---|---|---|---|
| 0-1025' 1100 4900 | Fresh Water | 8.6-9.2 | 28-32 | N/C |
| 1025'-5100' | Brine Water | 10.0-10.20 | 28-30 | N/C |
| 5100'-11200' | Cut Brine | 8.8-9.0 | 30-34 | N/C |
| 10523'-15696' | Cut Brine | 8.8-9.0 | 30-34 | N/C |

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. Mud level monitoring: After surface casing is set, an electronic PVT system will be installed as our primary mud level monitoring system. A secondary system will also be implemented as to insure the PVT system is functioning properly. The secondary system will be comprised of the derrick hand checking the fluid level in the pits periodically using a nut on the end of a rope hanging just above the fluid level in the pit.

6. Evaluation Program:

Samples: 30' Samples to 5100', then 10' Samples from 5100' to TD.
Logging: Platform Express – curve
CNL/LDT/NGT: Intermediate casing to TD
CNL/GR: Surface to TD
DLL-MSFL: Intermediate casing to TD
CMR: Intermediate casing to TD
Horizontal-MWD-GR: 10000' MD to TD
Mudlogging: 2000' to TD

7. Abnormal Conditions, Bottom hole pressure and potential hazards:

Anticipated BHP:

| | | | | | | |
|---|---|---|---|---|---|---|
| From: | 0 | TO: | 1025' | Anticipated Max. BHP: | 490 | PSI |
| From: | 1025' | TO: | 5100' | Anticipated Max. BHP: | 2705 | PSI |
| From: | 5100' | TO: | 11200' | Anticipated Max. BHP: | 5358 | PSI |

No abnormal pressures or temperatures are anticipated.
H2S is not anticipated

8. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 65 days to drill the well with completion taking another 30 days.

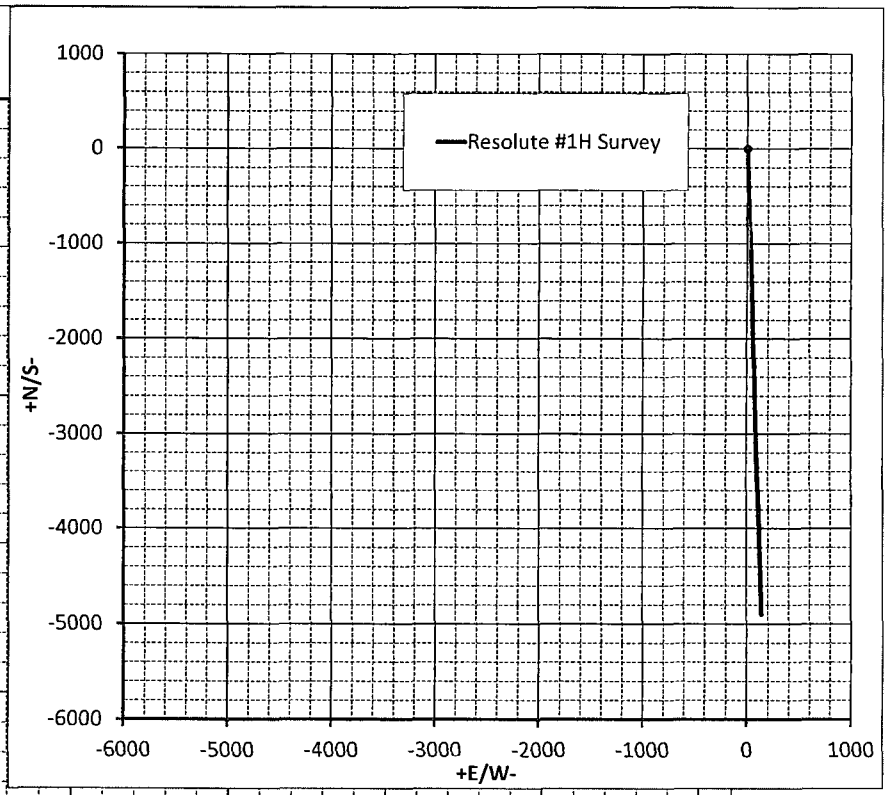
Operator Co.

Your Co.

## Survey/Planning Report

| | | | | | |
|---|---|---|---|---|---|
| Operator | Yates Petroleum Corp. | Northing | | Date | 9-May-13 |
| Dir. Co. | Yates Petroleum Corp. | Easting | | System | 2 - St. Plane |
| Well Name | Resolute #1H Survey | Elevation | | Datum | 1983 - NAD83 |
| Location | Sec. 12, 25S-32E | Latitude | | Zone | 4302 - Utah Central |
| Rig | | Longitude | | Scale Fac. | |
| Job | | Units | Feet | Converg. | |

| MD | INC | AZI | TVD | +N/S- | +E/W- | VS@178.38° | BR | TR | DLS |
|---|---|---|---|---|---|---|---|---|---|
| 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1000.00 | 0.00 | 0.00 | 1000.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1000: RUSTLER, 1000' | | | | | | | | | |
| 1320.00 | 0.00 | 0.00 | 1320.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 1320: SALADO, 1320' | | | | | | | | | |
| 3580.00 | 0.00 | 0.00 | 3580.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 3580: CASTILE, 3580' | | | | | | | | | |
| 4710.00 | 0.00 | 0.00 | 4710.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4710: BOS, 4710' | | | | | | | | | |
| 4960.00 | 0.00 | 0.00 | 4960.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4960: DELAWARE, 4960' | | | | | | | | | |
| 4980.00 | 0.00 | 0.00 | 4980.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 | 0.00 |
| 4980: BELL CANYON, 4980' | | | | | | | | | |
| 5940.00 | 0.00 | 0.00 | 5940.00 | 0.01 | 0.00 | -0.01 | 0.00 | 0.00 | 0.00 |
| 5940: CHERRY CANYON, 5940' | | | | | | | | | |
| 7800.00 | 0.00 | 0.00 | 7800.00 | 0.01 | 0.00 | -0.01 | 0.00 | 0.00 | 0.00 |
| 7800: BRUSHY CANYON, 7800' | | | | | | | | | |
| 9030.00 | 0.00 | 0.00 | 9030.00 | 0.01 | 0.00 | -0.01 | 0.00 | 0.00 | 0.00 |
| 9030: BONE SPRING, 9030' | | | | | | | | | |
| 9140.00 | 0.00 | 0.00 | 9140.00 | 0.01 | 0.00 | -0.01 | 0.00 | 0.00 | 0.00 |
| 9140: UPPER AVALON, 9140' | | | | | | | | | |
| 9470.00 | 0.00 | 0.00 | 9470.00 | 0.01 | 0.00 | -0.01 | 0.00 | 0.00 | 0.00 |
| 9470: LOWER AVALON, 9470' | | | | | | | | | |
| 10040.00 | 0.00 | 0.00 | 10040.00 | 0.01 | 0.00 | -0.01 | 0.00 | 0.00 | 0.00 |
| 10040: FBSG, 10040' | | | | | | | | | |
| 10522.54 | 0.00 | 178.38 | 10522.54 | 0.01 | 0.00 | -0.01 | 0.00 | 1.70 | 0.00 |
| 10522.54: KOP, 10523' | | | | | | | | | |
| 10600.00 | 9.30 | 178.38 | 10599.66 | -6.26 | 0.18 | 6.26 | 12.00 | 0.00 | 12.00 |
| 10620.69 | 11.78 | 178.38 | 10620.00 | -10.04 | 0.28 | 10.04 | 12.00 | 0.00 | 12.00 |
| 10620.69: SBSG, 10621' MD (10620' TVD) | | | | | | | | | |
| 10700.00 | 21.30 | 178.38 | 10695.94 | -32.58 | 0.92 | 32.59 | 12.00 | 0.00 | 12.00 |
| 10800.00 | 33.30 | 178.38 | 10784.64 | -78.34 | 2.21 | 78.37 | 12.00 | 0.00 | 12.00 |
| 10900.00 | 45.30 | 178.38 | 10861.89 | -141.53 | 3.99 | 141.59 | 12.00 | 0.00 | 12.00 |
| 11000.00 | 57.30 | 178.38 | 10924.31 | -219.40 | 6.19 | 219.48 | 12.00 | 0.00 | 12.00 |
| 11100.00 | 69.30 | 178.38 | 10969.16 | -308.53 | 8.71 | 308.65 | 12.00 | 0.00 | 12.00 |
| 11200.00 | 81.30 | 178.38 | 10994.50 | -405.04 | 11.43 | 405.20 | 12.00 | 0.00 | 12.00 |
| 11272.53 | 90.00 | 178.38 | 11000.00 | -477.26 | 13.47 | 477.45 | 12.00 | 0.00 | 12.00 |
| 11272.53: TARGET SBSG, 11273' MD (11000' TVD) | | | | | | | | | |
| 15695.63 | 90.00 | 178.38 | 11000.01 | -4898.60 | 138.23 | 4900.55 | 0.00 | 0.00 | 0.00 |
| 15695.63: LATERAL TD, 15696' MD (11000' TVD) | | | | | | | | | |




-1000 0 1000

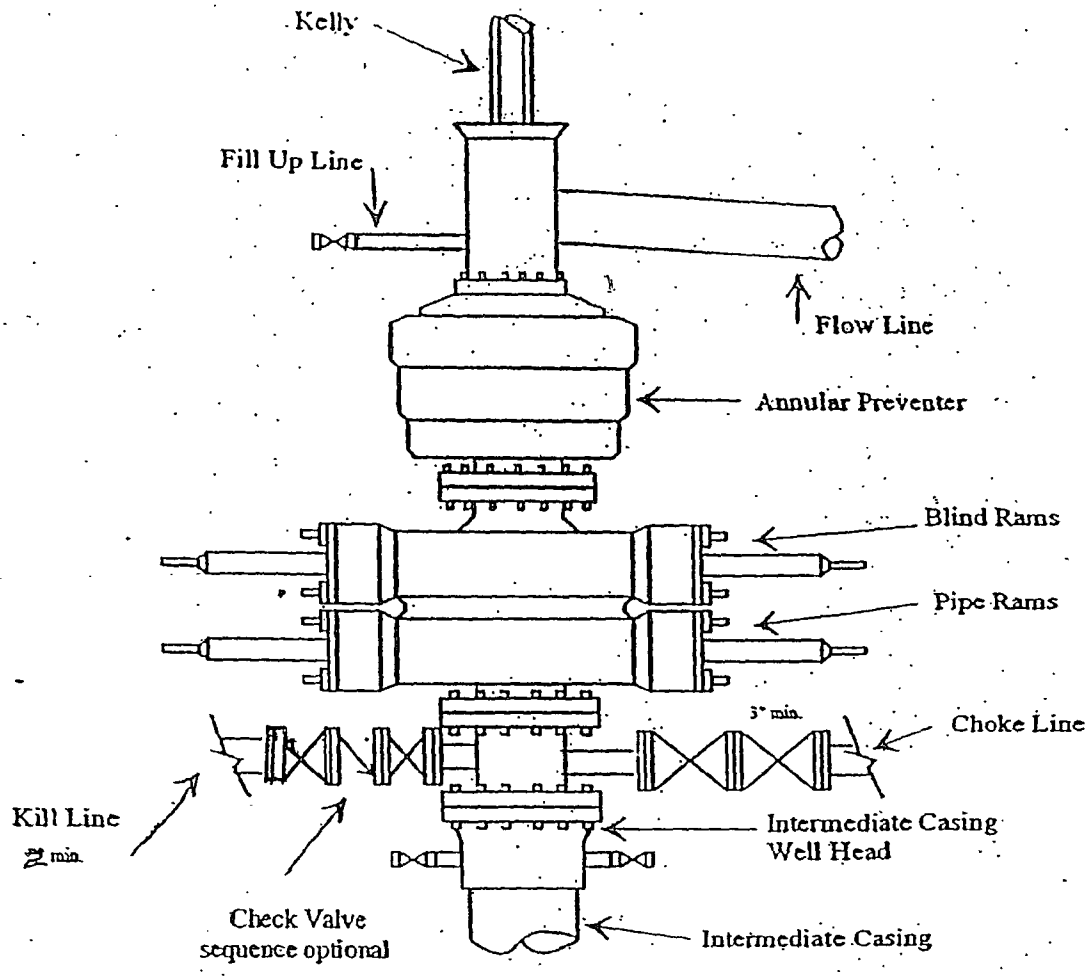
TVD

RUSTLER, 1000'
SALADO, 1320'
CASTILE, 3580'
BOS, 4710'
DELAWARE, 4960'
BELL CANYON, 4980'
CHERRY CANYON, 5940'
BRUSHY CANYON, 7800'
BONE SPRING, 9030'
UPPER AVALON, 9140'
LOWER AVALON, 9470'
FBSG, 10040'
KOP, 10523'
SBSG, 10621' MD (10620' TVD)
TARGET SBSG, 11273' MD (11000' TVD)
LATERAL TD, 15696' MD (11000' TVD)
Resolute #1H Survey

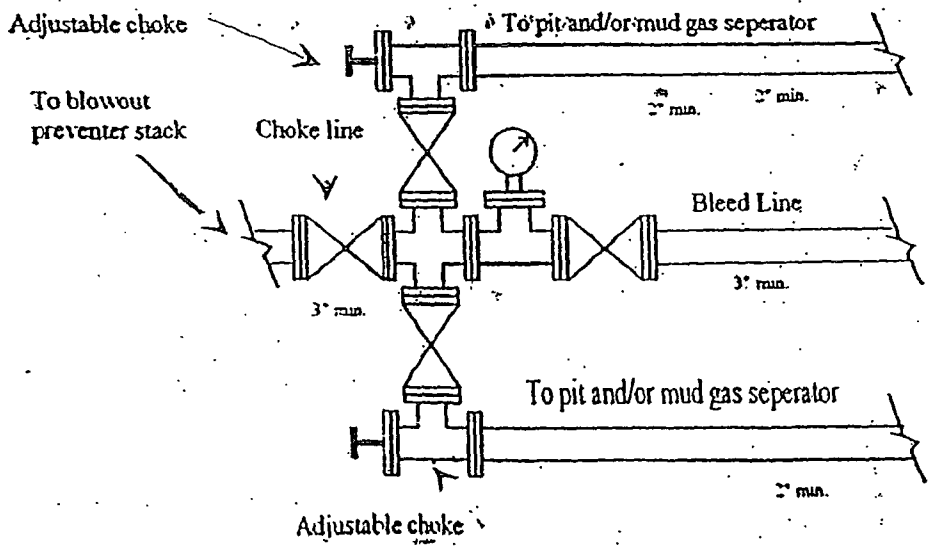
# Yates Petroleum Corporation

BOP-3

Typical 3,000 psi Pressure System
Schematic
Annular with Double Ram Preventer Stack

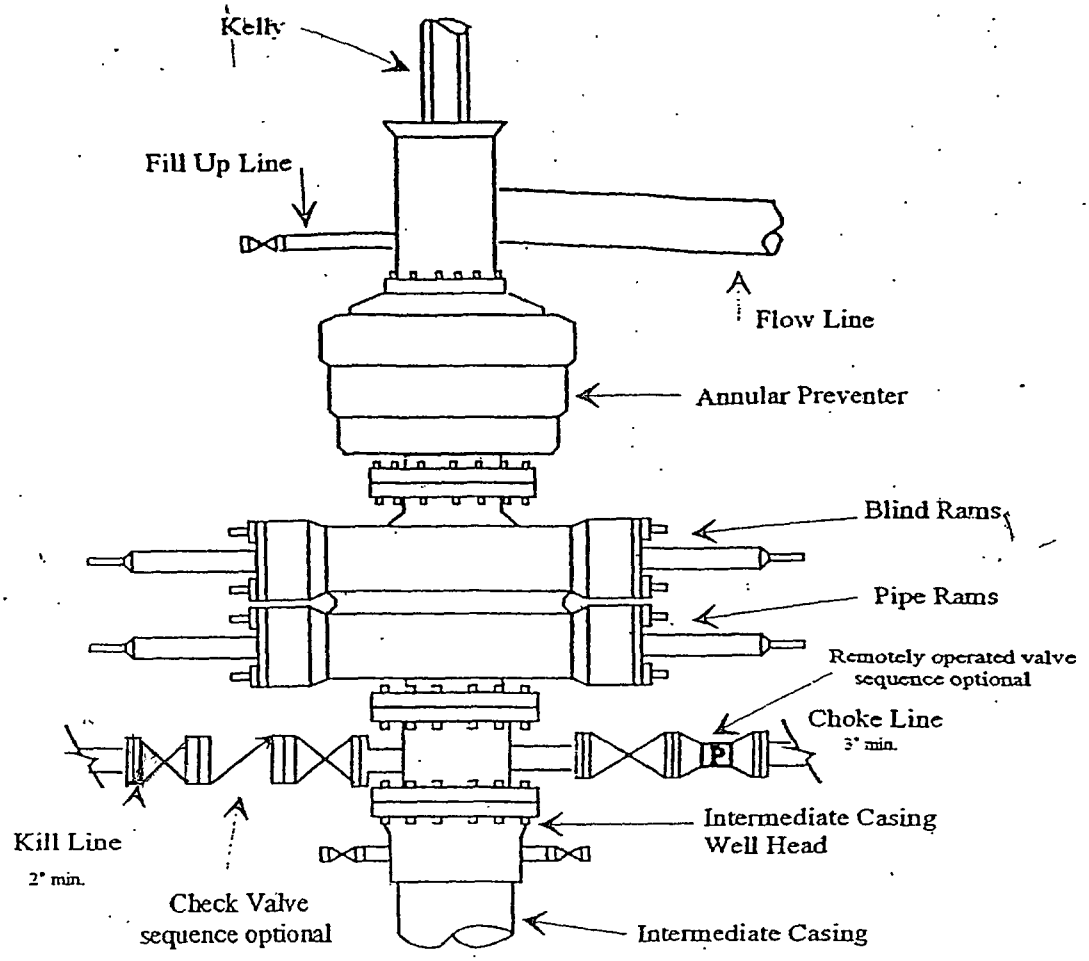



Typical 3,000 psi choke manifold assembly with at least these minimun features

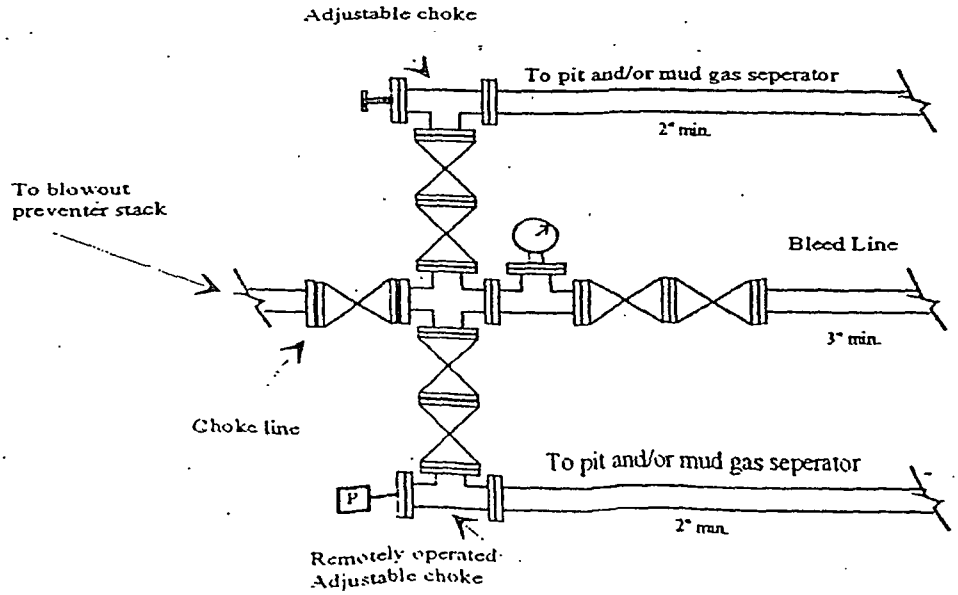


# Yates Petroleum Corporation

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

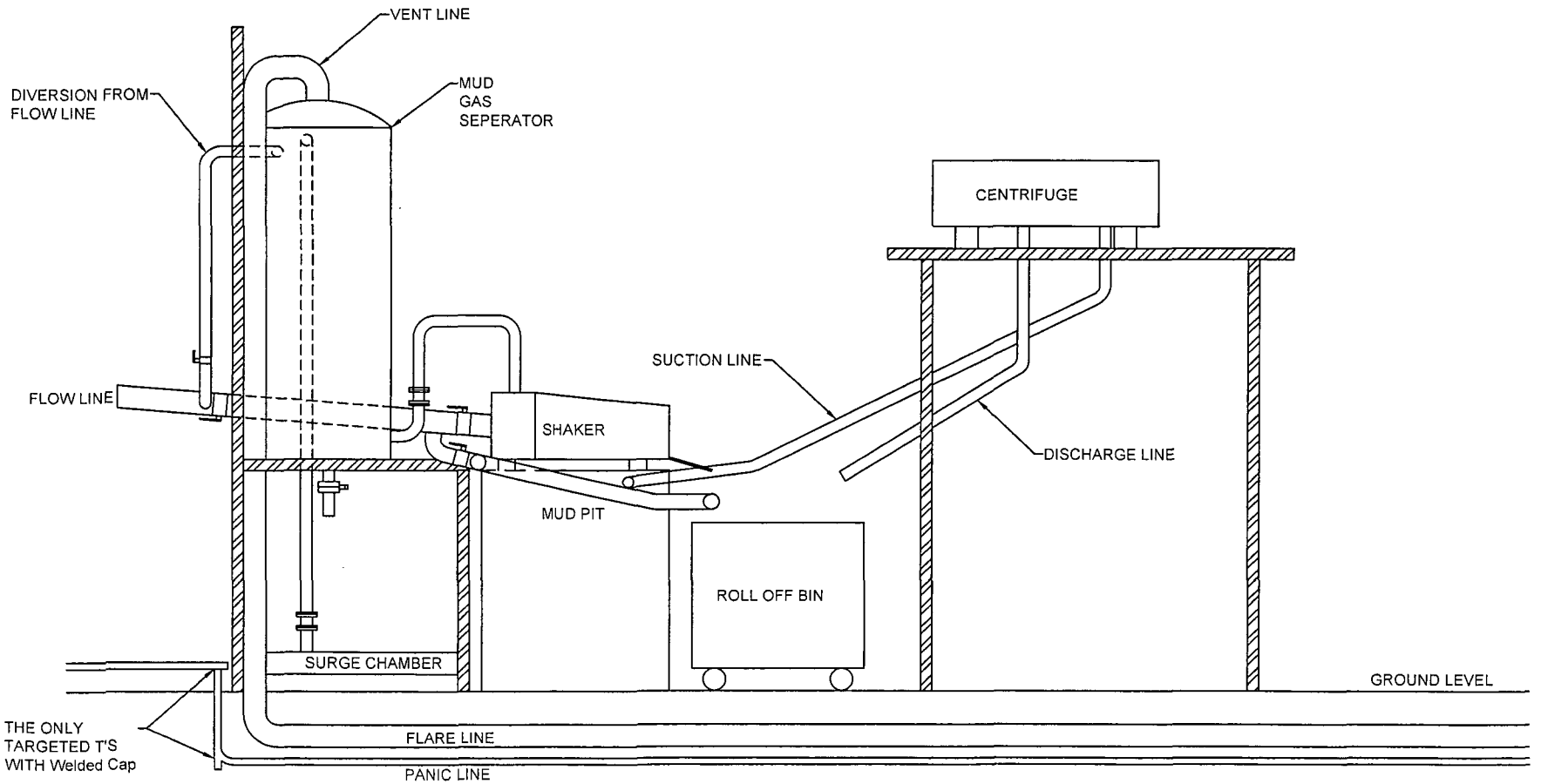



Typical 5,000 psi choke manifold assembly with at least these minimun features



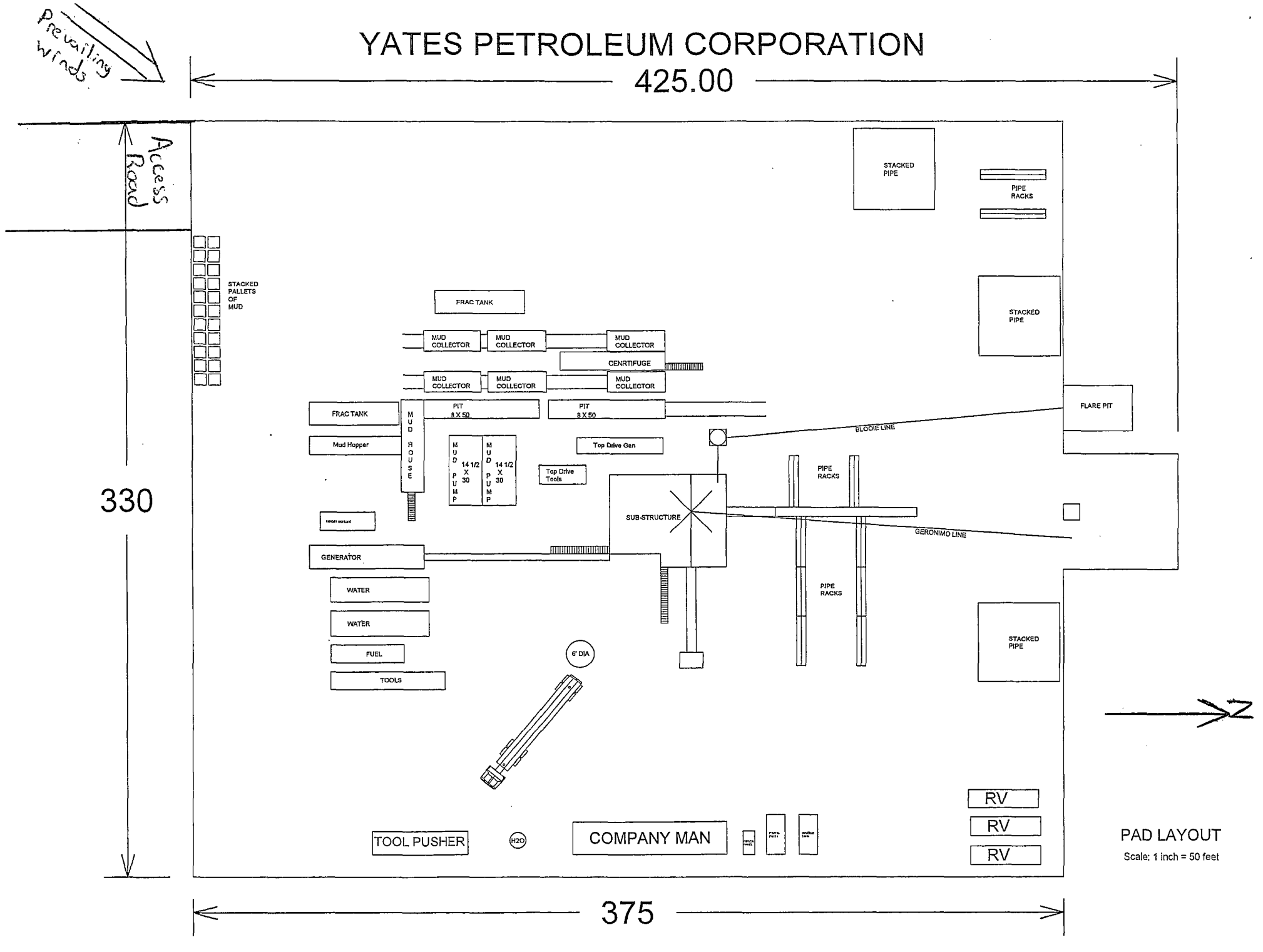
# YATES PETROLEUM CORPORATION

## Piping from Choke Manifold
## to the Closed Loop Drilling Mud System




The flare discharge must be 100' from wellhead for non H2S wells and 150' from wellhead for wells expected to encounter H2S.

# YATES PETROLEUM CORPORATION

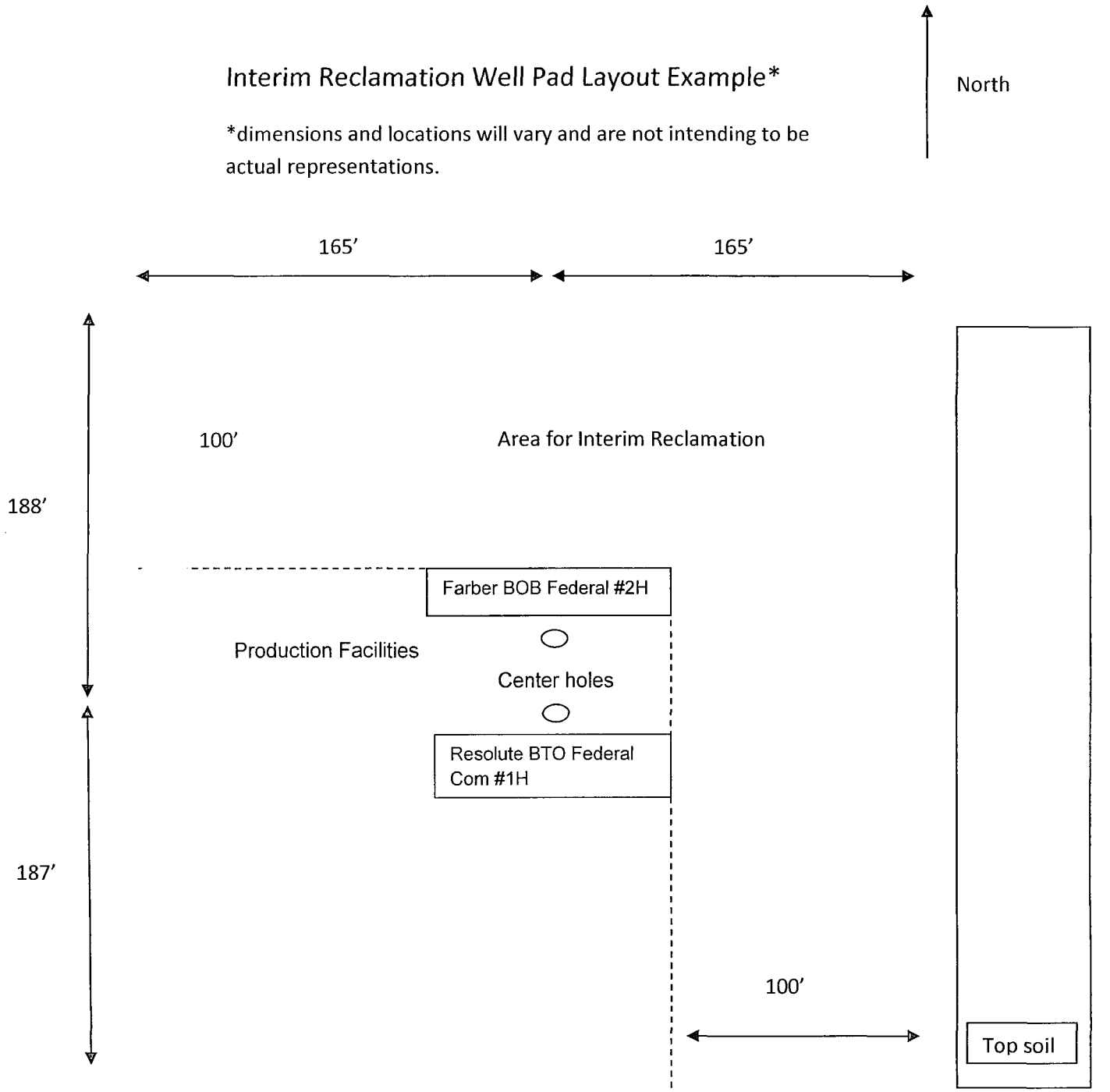



PAD LAYOUT

Scale: 1 inch = 50 feet

# Interim Reclamation Well Pad Layout Example*

*dimensions and locations will vary and are not intending to be actual representations.




Created 5/14/2013