

Form 3160-3
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
APPLICATION FOR PERMIT TO DRILL OR REENTER

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

1a. Type of Work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-66927
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input 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
2. Name of Operator Yates Petroleum Corporation <i><025575></i>		7. If Unit or CA Agreement, Name and No.
3a. Address 105 South Fourth Street, Artesia, NM 88210		8. Lease Name and Well No. <i><19731></i> Dean APQ Federal #3H
3b. Phone No. (include area code) 505-748-1471		9. API Well No. 30-025-40106
4. Location of well (Report location clearly and in accordance with any State requirements. *) At surface 330' FSL & 660' FWL Unit M At proposed prod. zone 330' FNL & 660' FWL Unit D		10. Field and Pool, or Exploratory Harden Tank Undesignated Bone Spring <i><9666></i>
14. Distance in miles and direction from the nearest town or post office* Approximately 25 miles west of Jal, NM		11. Sec., T., R., M., or Blk. And Survey or Area Section 3-T26S-R34E
15. Distance from proposed* location to nearest property or lease line, . ft. (Also to nearest drlg. unit line, if any) 330'	16. No. of acres in lease 2480.00	17. Spacing Unit dedicated to this well E2W2
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 1320'	19. Proposed Depth 9630'TVD & 14027' MD	20. BLM/ BIA Bond No. on file NATIONWIDE BOND #NMB000434
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3313 GL	22. Approximate date work will start* February 1, 2001	23. Estimated duration 60 days
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. | 4. Bond to cover the operations unless covered by existing bond on file (see item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification. |
| 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). | 6. Such other site specific information and/ or plans as may be required by the BLM |

25. Signature <i>Clifton May</i>	Name (Printed/ Typed) Clifton May	Date 12/17/2010
Title Land Regulatory Agent		
Approved By (Signature) <i>J. Martinez</i>	Name (Printed/ Typed)	Date MAR - 8 2011
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. **APPROVAL SUBJECT TO**

*(Instructions on page 2)

dm Carlsbad Controlled Water Basin

**SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

**GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED**

APR 06 2011

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 and Natural Resources Department

Form C-102
Revised July 16, 2010

Submit one copy to appropriate
District Office

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-025-40106	Pool Code 96661	Pool Name Harden Tank Wildeat; Bone Spring
Property Code 19731	Property Name DEAN "APQ" FEDERAL	Well Number 3H
OGRID No. 025575	Operator Name YATES PETROLEUM CORP.	Elevation 3313'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
M	3	26 S	34 E		330	SOUTH	660	WEST	LEA

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
D	3	26 S	34 E		330	NORTH	660	WEST	LEA

Dedicated Acres 160	Joint or Infill	Consolidation Code	Order No.
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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>PROPOSED BOTTOM HOLE LOCATION Lat - N 32°04'43.908" Long - W 103°27'51.046" NMSPEC- N 393512.11 E 810538.49 (NAD-83)</p> <p>SURFACE LOCATION Lat - N 32°03'58.194" Long - W 103°27'51.001" NMSPEC- N 388892.58 E 810579.57 (NAD-83)</p> <p>NM-66927</p> <p>Project Area</p> <p>Producing Zone</p> <p>Penetration Point 807' FSL & 660' FWL</p> <p>RECEIVED MAR 11 2011 NMOCD ARTESIA</p>	<p>OPERATOR CERTIFICATION</p> <p>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.</p> <p><i>Clifton May</i> 12/29/10 Signature Date</p> <p>Clifton May Printed Name</p> <p>cliff@yatespetroleum.com Email Address</p> <p>SURVEYOR CERTIFICATION</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 belief.</p> <p><i>GARY L. JONES</i> Date Surveyed Signature & Seal of Professional Surveyor</p> <p>Certificate No. Gary L. Jones 7977</p> <p>BASIN SURVEYS 23713</p>
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YATES PETROLEUM CORPORATION
Dean APQ Federal #3H
330' FSL and 660' FWL, Sec. 3-26S-34E, Surface Hole Location
330' FNL & 660' FWL, Sec. 3-26S-34E, Bottom Hole Location
Lea County, New Mexico

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

Rustler	900'	Bone Spring	9480'-Oil	TMD 9513'
Castille	2750'	Avalon Shale	9500'-Oil	9541'
Base Salt	5080'	Target Shale	9630'-Oil	9902'
Bell Canyon	5390'-Oil	TVD (Lateral)	9630'	14027'
Cherry Canyon	6370'-Oil			
Brushy Canyon	7790'-Oil			
2. The estimated depths at which anticipated water, oil or gas formations are expected to be encountered:
Water: 170'
Oil or Gas: Oil Zones: 5390', 6370', 7790', 9513', 9541', 9902'..
3. Pressure Control Equipment: 3000 PSI BOPE with a 13 5/8" opening will be installed on the 13 3/8" and a 5000 PSI BOPE with a 13 5/8" opening will be installed on the 9 5/8" casing. Pressure tests will be conducted before drilling out from under all casing strings, which are set and cemented in place. 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 B.
4. 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.
5. THE PROPOSED CASING AND CEMENTING PROGRAM:

A. Casing Program: All new casing to be used

<u>Hole Size</u>	<u>Casing Size</u>	<u>Wt./Ft</u>	<u>Grade</u>	<u>Coupling</u>	<u>Interval</u>	<u>Length</u>
17 1/2"	13 3/8"	48#	H-40	ST&C	0-950'	950'
12 1/4"	9 5/8"	40#	J-55	LT&C	0-100'	100'
12 1/4"	9 5/8"	36#	J-55	LT&C	100'-3200'	3100'
12 1/4"	9 5/8"	40#	J-55	LT&C	3200'-4200'	1000'
12 1/4"	9 5/8"	40#	HCK-55	LT&C	4200'-5400'	1200'
8 1/2"	5.5"	17#	HCP- 110	LT&C	0'-14027' MD	14027'

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

B. CEMENTING PROGRAM:

Surface Casing: Lead with 525 sacks Class C Lite+2% CaCl₂ (Yld 2.00 Wt 12.50)
tail in with 200 sacks class C with 2% CaCl₂ (Yld 1.34Wt. 14.80). TOC surface.

Intermediate Casing: Lead with 1575 sacks C Lite+2% CaCl₂ (Yld 2.00 Wt 12.50).
Tail in with 200 sacks Class C+2% CaCl₂ (YLD 1.34 WT 14.80 YLD). TOC surface

Production Casing cement is to be done in two stages with dv tool at 8700'.

Stage One: From 8700'-14027'; Cement with 1375 sacks Pecos Valley Lite, Calcium Carbonate 22.5 lb/sack, Extender 1.5 lb/sack, Retarder 0.01 lb/sack, Retarder 0.6

See
COA —
mm

lb/sack; Antifoam Agent, 0.15 lb/sack (Yld 1.83 Wt 13.00). TOC 8700'. DV Tool set approximately 8700'.

Stage Two: From 4900'-8700' lead with 675 sacks Lite Crete with Retarder 0.03 gal/sack, Anti Foam 0.2%, Dispersant 0.1%, Extender 39 lb/cSack (Yld 2.66 Wt 9.90) tail in with 100 sacks Pecos Valley Lite with Calcium Carbonate 22.5 lb/sack, Extender 1.5 lb/sack, Retarder 0.01 lb/sack, Retarder 0.6 lb/sack, Antifoam Agent 0.15 lb/sack X TOC 4900'

Yield? - used 1.41 from #2 HAPD

Well drilled vertically to 9153'. Well will then be kicked off and drilled at 12 degrees per 100' with a 8 3/4" hole to 9902' MD (9630' TVD). Hole size will then reduced to 8 1/2" and drilled to 14027' MD (9630' VD) where 5 1/2" casing will be set and cemented. Penetration point of producing zone will be encountered at 807' FSL & 660' FWL, 3-26S-34E. Deepest TVD in the lateral will be 9630'.

6. MUD PROGRAM AND AUXILIARY EQUIPMENT:

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-950'	Fresh Water Gel	8.60-9.20	35-40	N/C
950'-5400'	Brine Water	10.00-10.20	28	N/C
5400'-9153'	Cut Brine	8.90-9.10	28-29	N/C
9153'-14027'	Cut Brine (Lateral Section)	8.80-9.20	28-32	10-12

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. Rig personnel will check mud hourly.

7. EVALUATION PROGRAM: *See COA*

Samples: Thirty foot samples to 3000'. Every 10' from 3000' to TD

Logging: Platform Hals; CMR; dipole sonic for stress field

Coring: None anticipated

DST's: None Anticipated

Mudlogging: From surface casing

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

Maximum Anticipated BHP:

0'-950' • 454 PSI

950'-5400' 2864 PSI

5400'-9630' 4607 PSI

Abnormal Pressures Anticipated: None

Lost Circulation Zones Anticipated: None.

H2S Zones Anticipated: None Anticipated

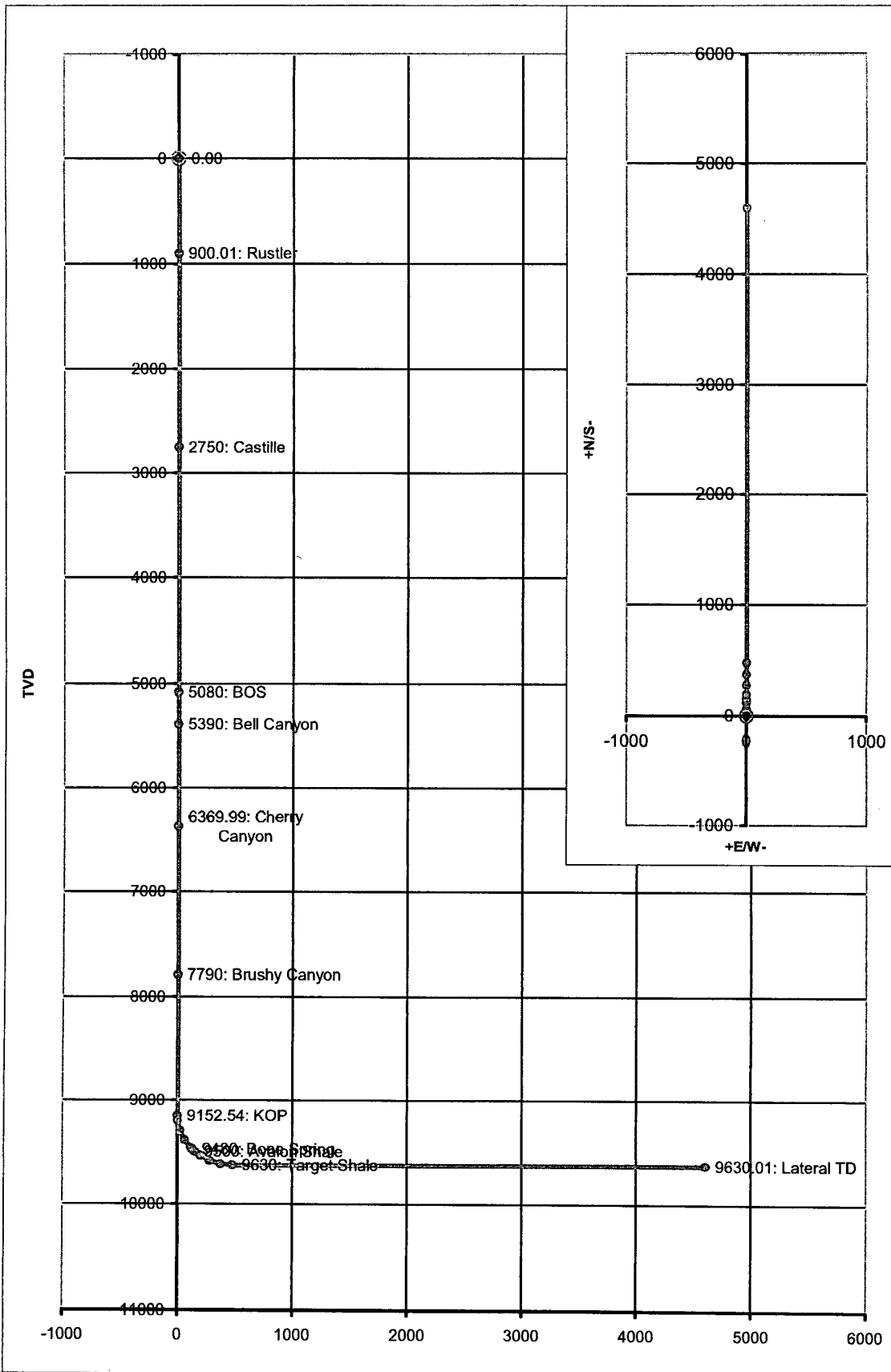
Maximum Bottom Hole Temperature: 150 F

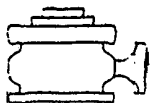
9. ANTICIPATED STARTING DATE:

Plans are to drill this well as soon as possible after receiving approval. It should take approximately 60 days to drill the well with completion taking another 20 days.

Co: 0	Units: Feet, ° 7100ft	VS Az: 0.00	Tgt TVD: 9630.00
Drillers: 0	Elevation:	Tgt Radius: 0.00	Tgt MD: 0.00
Well Name: Dean APQ Federal 3H	Northing:	Tgt N/S: 4602.00	Tgt Displ.: 0.00
Location: 0	Easting:	Tgt E/W: 0.00	Method: Minimum Curvature

No.	MD	CL	Inc.	Azi	TVD	VS	+N/S-	+E/W-	BR	WR	DLS	Comments
0	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
1	900.01	900.01	0.00	0.00	900.01	0.00	0.00	0.00	0.00	0.00	0.00	Rustler
2	2750.00	1850.00	0.00	0.00	2750.00	0.00	0.00	0.00	0.00	0.00	0.00	Castille
3	5080.00	2329.99	0.00	0.00	5080.00	0.00	0.00	0.00	0.00	0.00	0.00	BOS
4	5390.00	310.00	0.00	0.00	5390.00	0.00	0.00	0.00	0.00	0.00	0.00	Bell Canyon
5	6369.99	979.99	0.00	0.00	6369.99	0.01	0.01	0.00	0.00	0.00	0.00	Cherry Canyon
6	7790.00	1420.01	0.00	0.00	7790.00	0.01	0.01	0.00	0.00	0.00	0.00	Brushy Canyon
7	9152.54	1362.54	0.00	0.00	9152.54	0.01	0.01	0.00	0.00	0.00	0.00	KOP
8	9200.00	47.46	5.70	0.00	9199.92	2.37	2.37	0.00	12.00	0.00	12.00	
9	9300.00	100.00	17.70	0.00	9297.67	22.60	22.60	0.00	12.00	0.00	12.00	
10	9400.00	100.00	29.70	0.00	9389.07	62.71	62.71	0.00	12.00	0.00	12.00	
11	9500.00	100.00	41.70	0.00	9470.13	120.95	120.95	0.00	12.00	0.00	12.00	
12	9513.38	13.38	43.30	0.00	9480.00	130.00	130.00	0.00	12.00	0.00	12.00	Bone Spring
13	9541.67	28.29	46.70	0.00	9500.00	150.00	150.00	0.00	12.00	0.00	12.00	Avalon Shale
14	9600.00	58.33	53.70	0.00	9537.32	194.78	194.78	0.00	12.00	0.00	12.00	
15	9700.00	100.00	65.70	0.00	9587.69	280.95	280.95	0.00	12.00	0.00	12.00	
16	9800.00	100.00	77.70	0.00	9619.04	375.72	375.72	0.00	12.00	0.00	12.00	
17	9902.53	102.53	90.00	0.00	9630.00	477.47	477.47	0.00	12.00	0.00	12.00	Target Shale
18	14027.07	4124.54	90.00	0.00	9630.01	4602.01	4602.01	0.00	0.00	0.00	0.00	Lateral TD



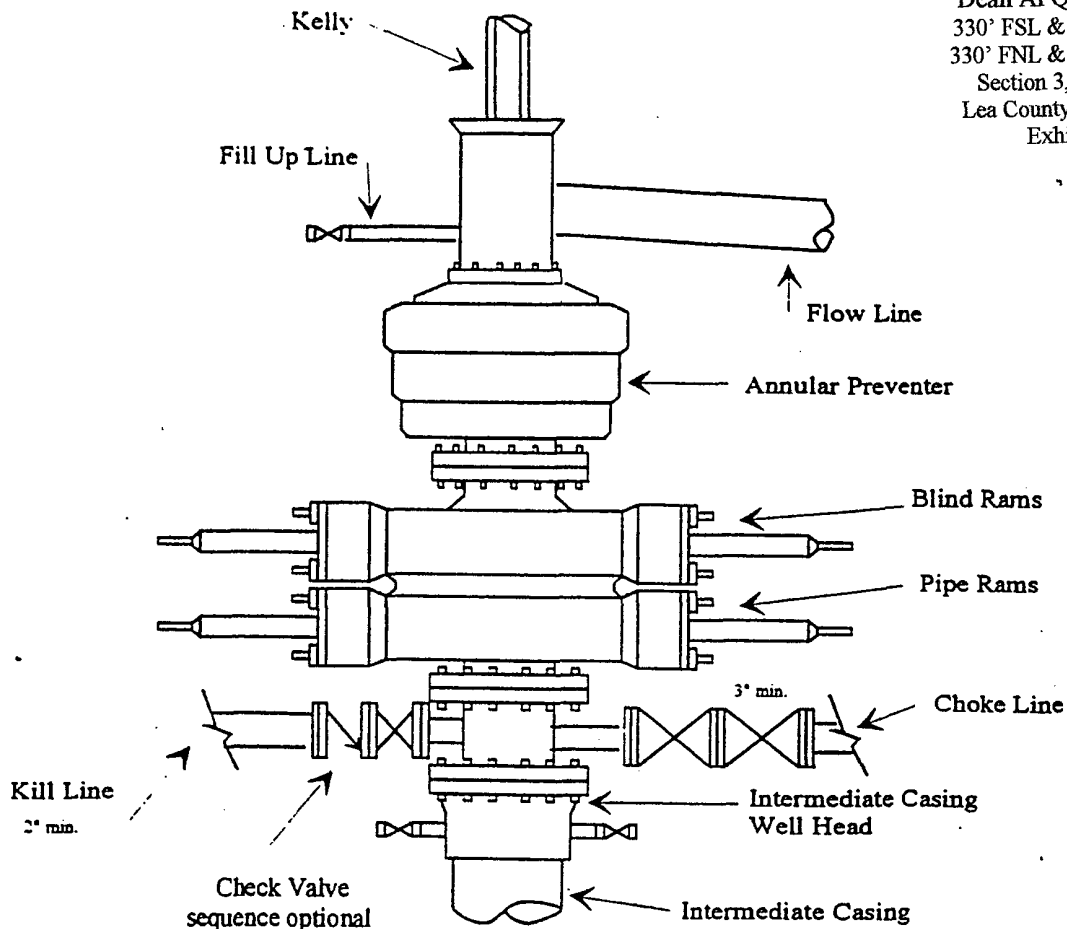


Yates Petroleum Corporation

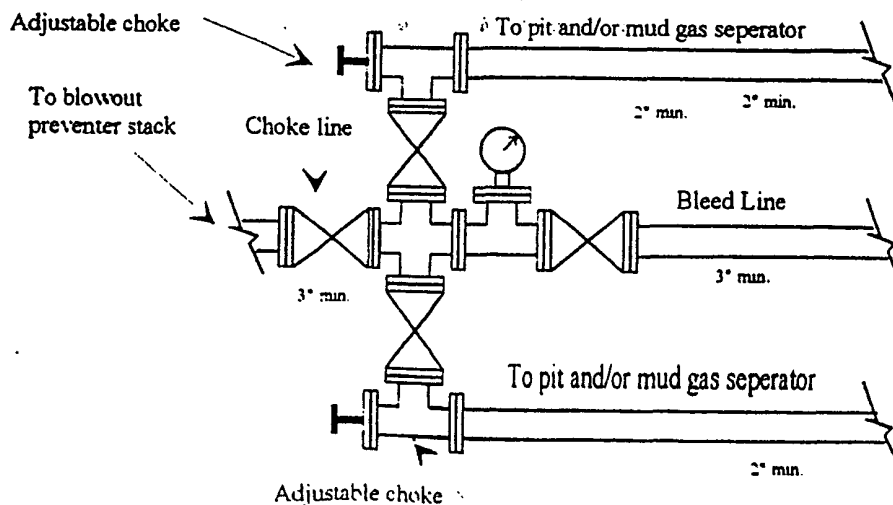
BOP-3

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

Dean APQ Federal #3H
330' FSL & 660' FWL, SH
330' FNL & 660' FWL, BH
Section 3, T26S-R34E
Lea County, New Mexico
Exhibit "B"

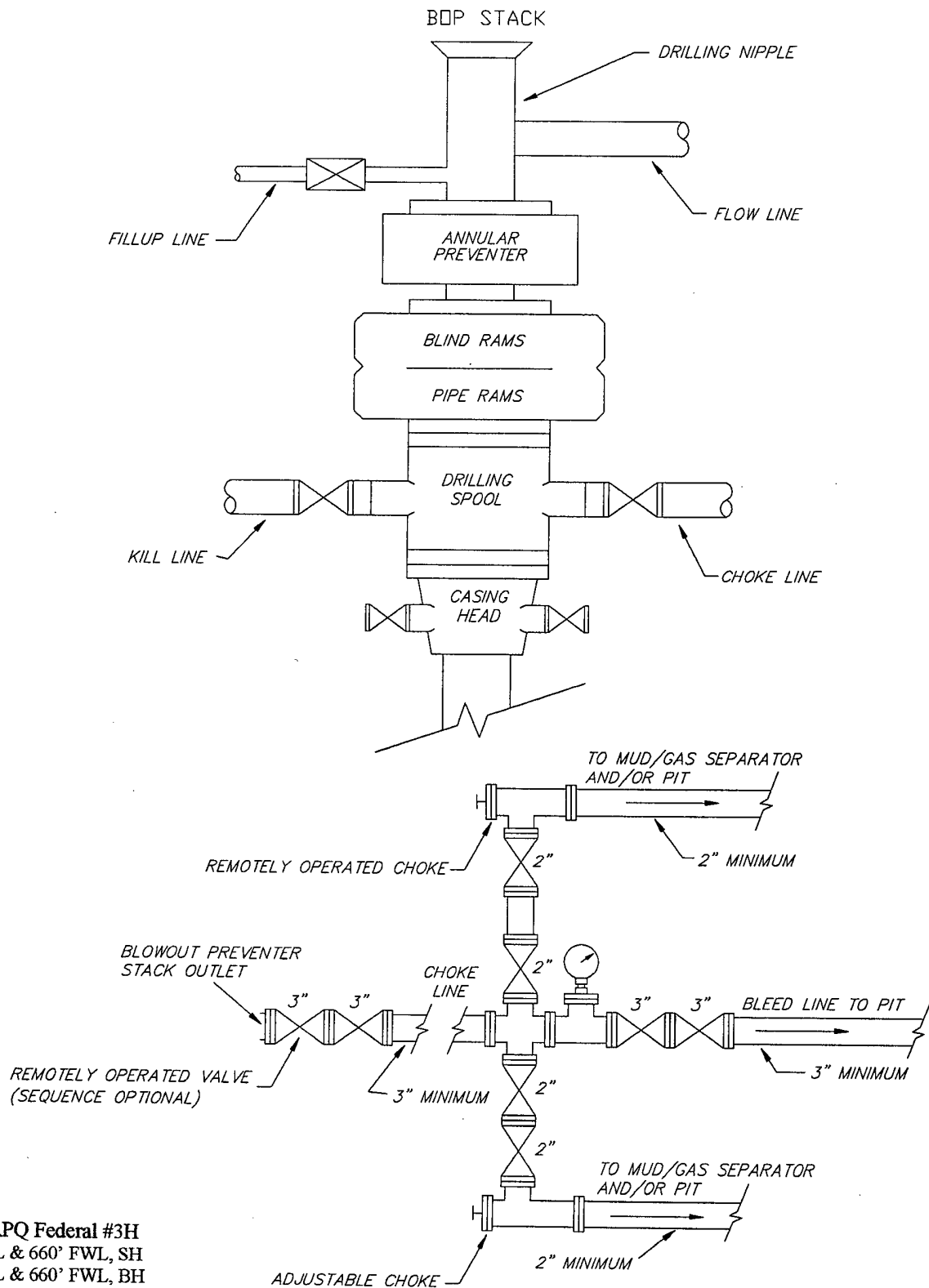


Typical 3,000 psi choke manifold assembly with at least these minimum features

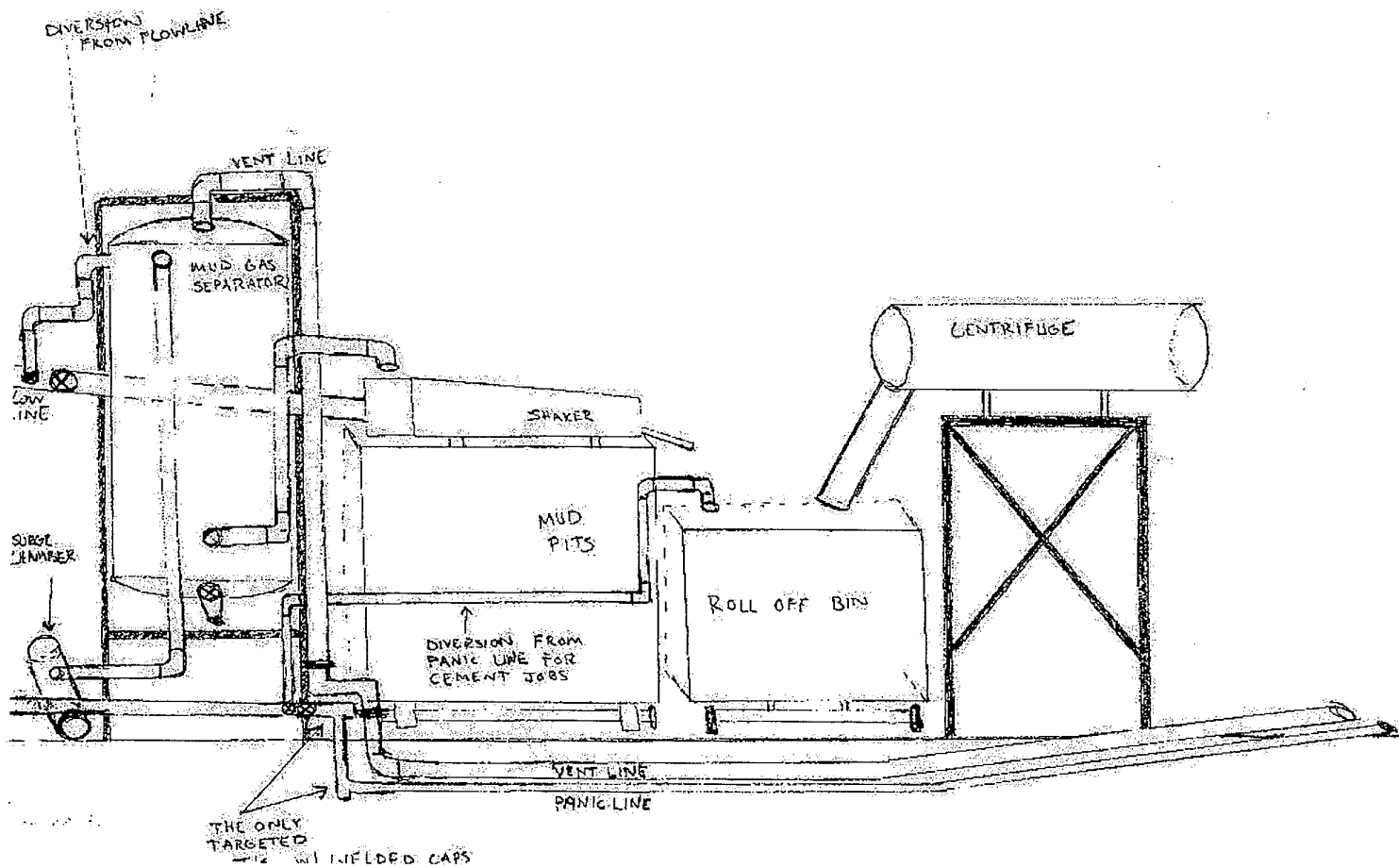


YATES PETROLEUM CORPORATION

TYPICAL 5,000 p.s.i. BLOWOUT PREVENTER & CHOKE MANIFOLD SCHEMATIC



Dean APQ Federal #3H
330' FSL & 660' FWL, SH
330' FNL & 660' FWL, BH
Section 3, T26S-R34E
Lea County, New Mexico
Exhibit "B-1"

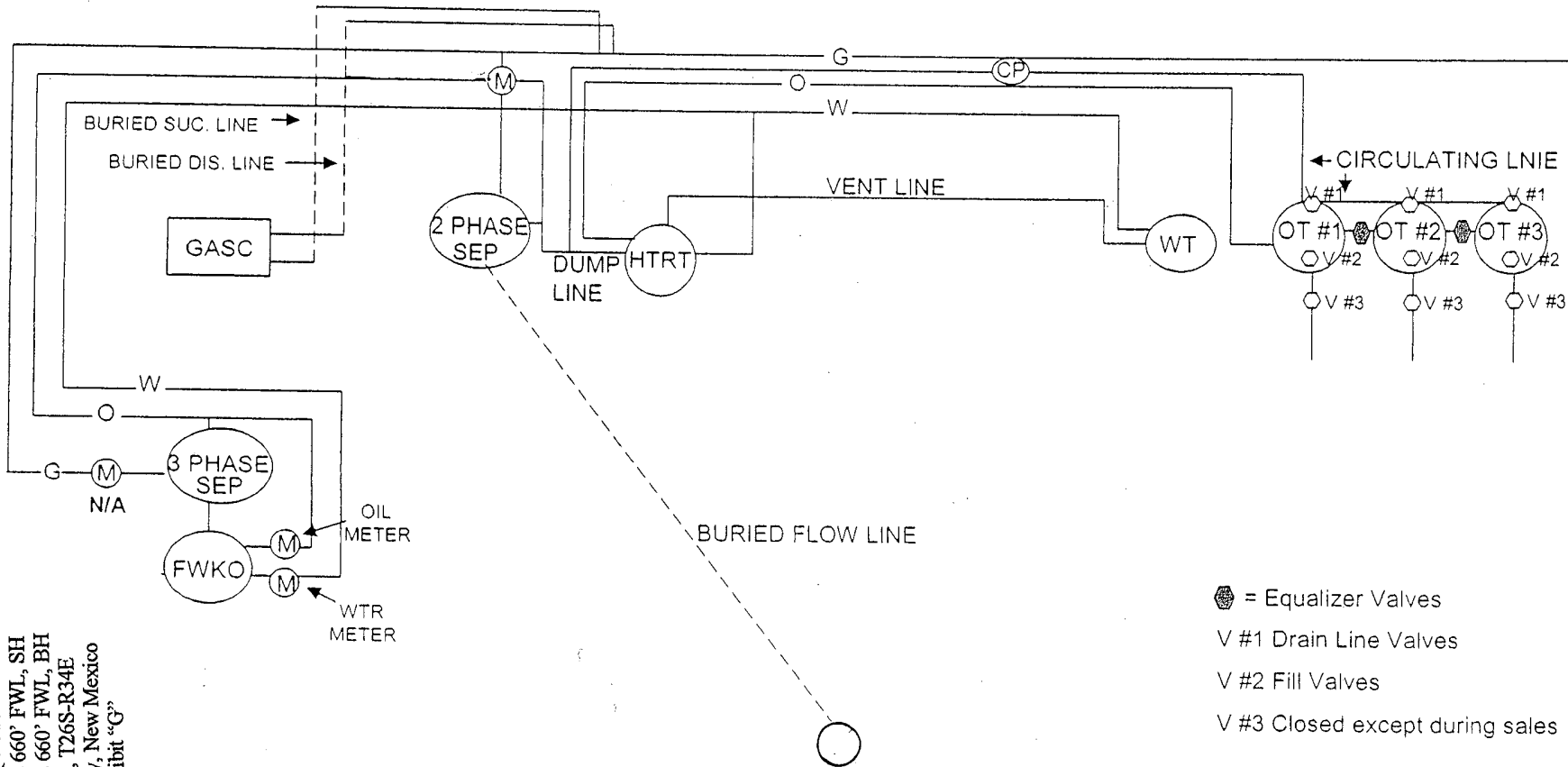


Dean APQ Federal #3H
 330' FSL & 660' FWL, SH
 330' FNL & 660' FWL, BH
 Section 3, T26S-R34E
 Lea County, New Mexico
 Exhibit "C-1"



105 South 4th Street * Artesia, NM 88210
(575)-748-1471

-Danny Matthews
June, 2010



= Equalizer Valves
 V #1 Drain Line Valves
 V #2 Fill Valves
 V #3 Closed except during sales

This diagram is subject to the Yates Petroleum Corporation August 1983 Security Plan
which is on file at 105 South 4th Street, Artesia, NM

Dean APQ Federal #3H
 330' FSL & 660' FWL, SH
 330' FNL & 660' FWL, BH
 Section 3, T26S-R34E
 Lea County, New Mexico
 Exhibit "G"

Yates Petroleum Corporation

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

Hydrogen Sulfide (H₂S) Contingency Plan

For

Dean APQ Federal #3H

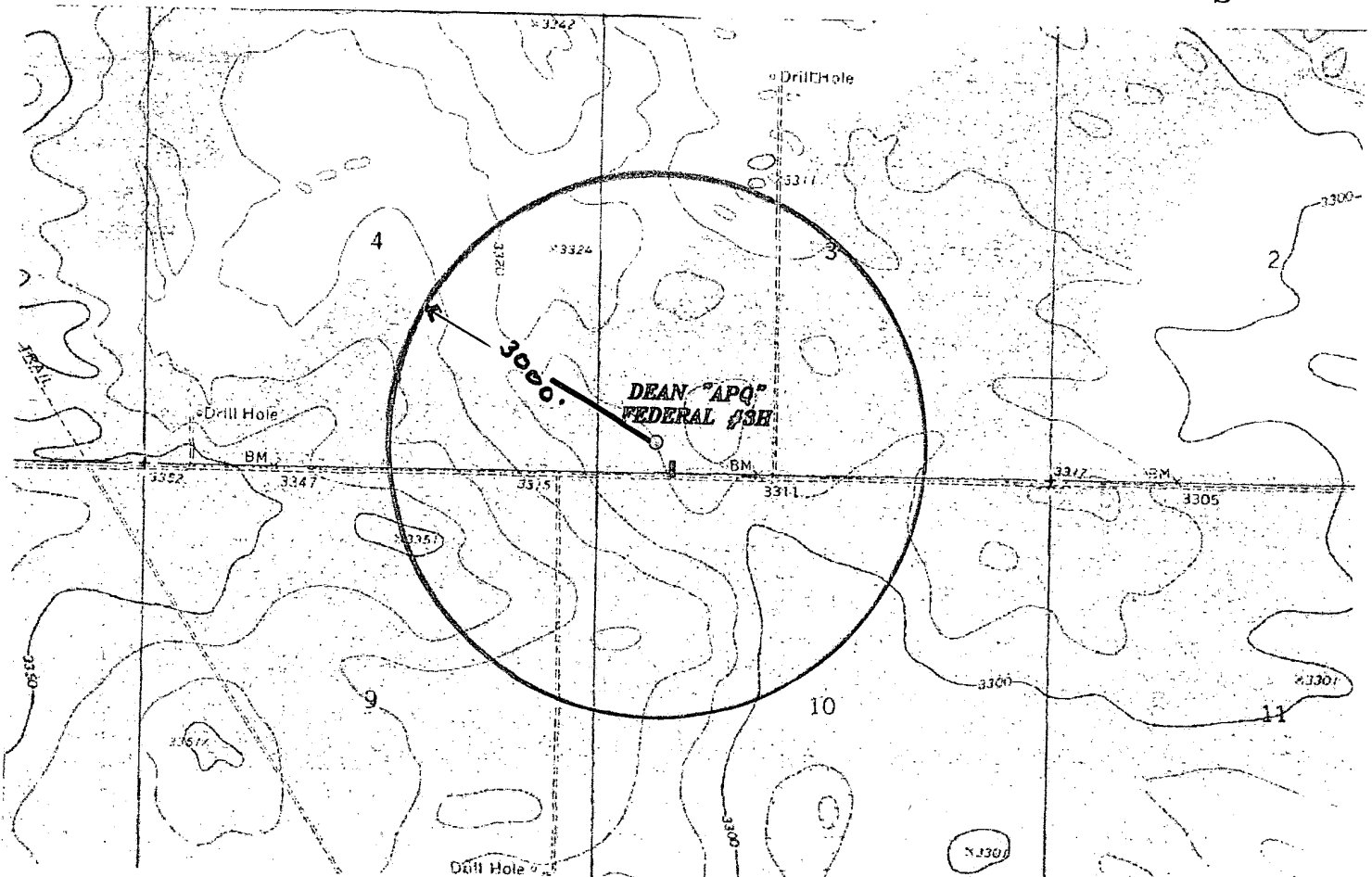
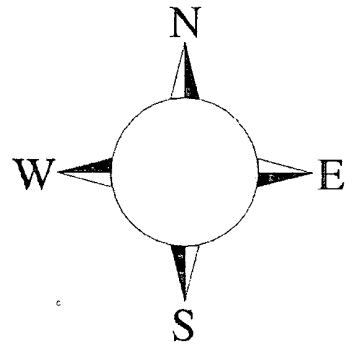
**330' FSL & 660' FWL, Surface Hole Location
330' FNL & 660' FWL, Bottom Hole Location
Section 3-T26S-R34E
Lea County, New Mexico**



RECEIVED
2011 JAN 12 PM 3:52
BUREAU OF LAND MGMT
CARLSBAD FIELD OFFICE

Dean APQ Federal #3H

This is an open drilling site. H₂S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H₂S, including warning signs, wind indicators and H₂S monitor.



Assumed 100 ppm ROE = 3000'
100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the case of a release of gas containing H₂S, the first responder(s) must isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

All responders must have training in the detection of H₂S, measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H₂S monitors and air packs in order to control the release. Use the “buddy system” to ensure no injuries during the response.

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H ₂ S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO ₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

YPC personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. YPC Company response must be in coordination with the State of New Mexico’s ‘Hazardous Materials Emergency Response Plan’ (HMER)

Yates Petroleum Corporation Phone Numbers

YPC Office	(575) 748-1471
Darrick Stallings/Operations Manager	(575) 748-4198
Wade Bennett/Prod Superintendent	(575) 748-4236
LeeRoy Richards/Assistant Prod Superintendent	(575) 748-4228
Mike Larkin/Drilling	(575) 748-4222
Tim Bussell/Drilling Superintendent	(575) 748-4221
Artesia Answering Service	(575) 748-4302
(During non-office hours)	

Agency Call List

Lea County (575)

Jal

State Police	827-7130 Eunice
City Police.....	395-2501
Sheriff's Office	395-2121
Ambulance	911
Fire Department	395-2221
NMOCD.....	393-6161 Hobbs

Hobbs

State Police	392-5588
City Police.....	397-9265
Sheriff's Office.....	397-9262
Ambulance	911
Fire Department	397-9308
LEPC (Local Emergency Planning Committee).....	887-3798

US Bureau of Land Management.....	887-6544 Carlsbad
New Mexico Emergency Response Commission (Santa Fe)	(505) 476-9600
24 HR	(505) 827-9126
New Mexico State Emergency Operations Center.....	(505) 476-9635
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	(575) 746-2757
B. J. Services.....	(575) 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