

OCD-ARTESIA

Form 3160-3
(March 2012)

SECRETARY'S POTASH

FORM APPROVED
OMB No 1004-0137
Expires October 31, 2014UNITED 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. LC - 062376
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		7. If Unit or CA Agreement, Name and No.
3a. Address 105 S. Fourth Street Artesia, NM 88210		8. Lease Name and Well No. Antweil ANU Federal #4H <15136>
3b. Phone No. (include area code) 575-748-4120		9. API Well No. 30-615-40426 TOS
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface 860' FSL & 660' FWL Sec. 29, T-19S & R-30E At proposed prod. zone 660' FSL & 2310' FWL Sec. 28, T-19S & R-30E		10. Field and Pool, or Exploratory Bone Spring - Antweil PARKWAY <49622>
11. Sec., T. R. M. or Blk. and Survey or Area Sec. 29, T-19S & R-30E SHL Sec. 28, T-19S & R-30E BHL		12. County or Parish Eddy
13. State NM		14. Distance in miles and direction from nearest town or post office* 35 miles
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) 660'	16. No. of acres in lease 1920	17. Spacing Unit dedicated to this well 240
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 600'	19. Proposed Depth 15169' TD 8516' TVD	20. BLM/BIA Bond No. on file Nationwide Bond #NMB000434
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3335'	22. Approximate date work will start* 12/12/2012	23. Estimated duration 40 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. | 4. Bond to cover the operations unless covered by an 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	Name (Printed/Typed) Travis Hahn	Date 04/13/2012
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Title
Land Regulatory Agent

Approved by (Signature) /s/ Jesse J. Juen	Name (Printed/Typed)	Date JUN 14 2012
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Title STATE DIRECTOR	Office NM STATE OFFICE
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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.

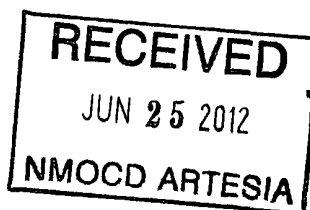
APPROVAL FOR TWO YEARS

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)

CAPITAN CONTROLLED WATER BASIN

SEE ATTACHED FOR
CONDITIONS OF APPROVALAPPROVAL SUBJECT TO
GENERAL REQUIREMENTS
AND SPECIAL STIPULATIONS
ATTACHED

CERTIFICATION
YATES PETROLEUM CORPORATION
Antweil ANU Federal #4H

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; and an someone under employment of Yates Petroleum Corporation has full knowledge of state and federal laws applicable to the 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 17 day of April 2012

Signature 

Name Travis Hahn

Position Title Land Regulatory Agent

Address 105 South Fourth Street, Artesia, New Mexico 88210

Telephone (575) 748-4120

Field Representative (if not above signatory) Tim Bussell, Drilling Supervisor

Address (if different from above) Same as above

Telephone (if different from above) (575) 748-4221

DISTRICT I
1825 N. French Dr., Hobbs, NM 88240
Phone (505) 393-6161 Fax: (505) 393-0720

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210
Phone (505) 748-1283 Fax: (505) 748-0720

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised August 1, 2011

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 30-015-46426	Pool Code 49622	Pool Name PARKWAY Wildcat Bone Spring
Property Code 15136	Property Name ANTWEIL "ANU" FEDERAL	Well Number 4H
OGRID No. 025575	Operator Name YATES PETROLEUM CORP.	Elevation 3335'

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	29	19 S	30 E		860	SOUTH	660	WEST	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
N	28	19 S	30 E		660	SOUTH	2310	WEST	EDDY
Dedicated Acres 240	Joint or Infill	Consolidation Code	Order No. 6-14 15169						

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>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>Signature <u>Travis Hahn</u> Date <u>4/17/12</u></p> <p>Printed Name <u>Travis Hahn</u></p> <p>Email Address <u>thahn@yatespetroleum.com</u></p>
<p>SURFACE LOCATION Lat - N 32°37'35.50" Long - W 104°00'02.16" NMSPCE- N 591821.681 E 643773.516 (NAD-83)</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>Date Surveyed <u>April 17, 2011</u></p> <p>Signature & Seal of Professional Surveyor <u>Gary L. Jones</u></p> <p>Certificate No. <u>Gary L. Jones 7977</u></p> <p>BASIN SURVEYS 25348</p>

YATES PETROLEUM CORPORATION

Antweil ANU Federal #4H

860' FSL & 660' FWL, Section 30 -T19S-R30E, Surface Hole
660' FSL & 2310' FWL, Section 28 - T19S-R30E, Bottom Hole
Eddy County, New Mexico

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

Rustler	371'	Bone Spring Lime	6186'
Top of Salt	396'	Avalon Sand	6296' Oil
Base of Salt	1376'	Middle Avalon	6486' Oil
Yates	1476' Oil	Lower Avalon	6896' Oil
Capitan Reef	1743' Water	Bone Springs 1/SD	7546' Oil
Delaware	3576'	Bone Springs 2/SD	8206' Oil
Cherry Canyon	3716'	Target Zone SBSG	8426'
Brushy Canyon	4616' Oil	Base SBSG	8451'
		Bone Springs 3/SD	9126'
		Lateral Hole (TD)	15169' MD

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

Water: Approx.: 0' - 396' & 1743' - 3550'

Oil or Gas: See above--All Potential Zones

3. Pressure Control Equipment: Yates Petroleum Corporation hereby request a variance to allow us to place a 2000 PSI annular system with a 17.5" opening will be installed on the 20" casing. A 3000 PSI BOP with a 13 5/8" opening will be installed on the 13 3/8" casing and also on the 9 5/8" 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. 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.

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) 13 3/8" will be J-55/H-40 Hybrid

See Log

Hole Size	Casing Size	Wt./Ft	Grade	Coupling	Interval	Length
26"	20"	94#	J-55	Buttress Thread	0- 396' 350'	396'
17 1/2"	13 3/8"	54.50#	J-55	ST&C	0-100'	100'
17 1/2"	13 3/8"	48#	J-55	ST&C	100'-1200'	1100'
17 1/2"	13 3/8"	54 50#	J-55	ST&C	1200'-1700'	500'
12 1/4"	9 5/8"	36#	J-55/K-55	ST&C	0'-3800'	3800'
8 3/4"	5 1/2"	17#	P-110	LT&C	0'-7955'	7955'
8 1/2"	5 1/2"	17#	L-80	Buttress Thread	7955'-15169'	7214'

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

B. CEMENTING PROGRAM:

Surface casing: 890 sacks of Class C + 2% CaCl₂ (YLD 1.34 WT 14.80) Designed with 100% excess, TOC is surface.

Intermediate Casing 1(0'-1700'): Lead with 1040 sacks of Class PozC 35.65:6 (YLD 2.00 WT 12.50); tail in with 200 sacks of Class C + 2% CaCl₂ (YLD 1.34 WT 14.80). Designed with 100% excess, TOC is surface.

Intermediate Casing 2(0'-3800'): Lead with 1065 sacks of Class PozC 35.65:6 (YLD 2.00 WT 12.50); tail in with 200 sacks of Class C + 2% CaCl₂ (YLD 1.34 WT 14.80). Designed with 100% excess, TOC is surface.

Production Casing: Cement to be done with DV Tool in two stages at approximately 7900' & 4000'.

Stage 2 from 0'-4000': Lead cement with 550 sacks of Class PozC 35.65:6 (YLD 2.00 WT 12.50); tail in with 200 sacks of Class C + 2% CaCl₂ (YLD 1.34 WT 14.80). Designed with 35% excess, TOC-0'.

Stage 1 from 4000'-7900'. Lead with 515 sacks Class PozC 35.65:6 (YLD 2.00 WT 12.50); tail in with 200 sacks of Pecos Valley Lite (YLD 1.41 WT 13.00) 30% CaCO₃, 3.2% Expansion additive, 2% Antifoam, .8% Retarder, 15 Fluid loss. TOC- 4000' Designed with 35% excess.

Well will be drilled vertically with a pilot hole to a depth of 9400'. Isolation plug will be cemented from 9400' to 9200' with 84 sacks of Class H Neat [YLD 0.94 WT 17.5] additive's being CFR-3 0.4%, Gilsonite 3 lbs/sack, HALAD4-344 0.5%, HR-800 0.2%, and Poly-E-Flake 0.125 lbs/sack, plug designed with 25% excess. Kick off plug will be at 8350' to 7750' with 360 sacks of Class H [YLD 0.94 WT 17.5] additive's being 0.1 gal/sack dispersant, 0.03 gal/sack retarder, and 0.02 gal/sack antifoam, plug designed with 35% excess. Well will then be kicked off at 7955' and drilled directionally at 12 degrees per 100' with a 8 1/4" hole to 8699' MD (8432' TVD). If hole conditions dictate, 7" casing will be set at landing point 8699' MD (8432' TVD) and cemented to surface in two stages (DV tool will be set at 4600'). A 4 1/2" liner hanger with PBR will be set from 7750' to lateral TD and packers and ports will be utilized in the lateral. If 7" is not set; hole will then be reduced to 8 1/2" and drilled to 15169' MD (8516' TVD) where 5 1/2" casing will be set and cemented from kick off point to surface. A DV tool will be set at 7900' and at 4000'. Packer's Plus packer port system will be utilized in the lateral. Penetration point of producing zone will be encountered at 847' FSL & 1131' FWL, Section 29-19S-30E. Deepest TVD in the pilot hole 9400', deepest TVD in the lateral will be 8516'.

5 Mud Program and Auxiliary Equipment.

<u>Interval</u>	<u>Type</u>	<u>Weight</u>	<u>Viscosity</u>	<u>Fluid Loss</u>
0-400'	Fresh Water	8.6-9.2	29-36	N/C
450'-1700'	Brine Water	10.0	32-40	N/C
1700'-3800'	Fresh Water	8.6-8.8	28-29	N/C
3800'-9400'	Cut Brine	8.8-9.2	29-30	N/C
7955'-15169'	Cut Brine (lateral)	8.8-9.2	30-32	<10-15

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: 30' samples to 3000'. 10' samples 3000' to TD.

Logging: Platform HRLA CMR to 30 degree deviation

Coring: As warranted.

DST's: As warranted.

Mudlogging: On surface casing to TD

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

Anticipated BHP:

From: 0	TO: 400'	Anticipated Max. BHP:	191	PSI
From: 400'	TO: 1480'	Anticipated Max. BHP:	785	PSI
From: 1480'	TO: 3800''	Anticipated Max. BHP:	1739	PSI
From: 3800'	TO: 8432'	Anticipated Max. BHP:	4034	PSI
From: 8432'	TO: 9400'	Anticipated Max. BHP:	4497	PSI

No abnormal pressures or temperatures are anticipated.

Lost Circulation Zones Anticipated: Possible in Capitan Reef

H2S Zones 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.

Antweil ANU Federal #4H

Contingency Casing Design

If hole conditions dictate, 7" casing will be set at 8,699' MD (8,432' TVD). A 6 1/8" hole will then be drilled to 15,169' MD (8,516' TVD) where a 4 1/2" liner will be set with a packer/port system

2nd Intermediate

0 ft to 8,699 ft				Make up Torque ft-lbs			Total ft = 8,699
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	

DV tool placed at 4500'.

Stage I. Lead w/480sx 35:65.6 PzC (YLD 2.0 Wt 12.5), w/200sx PVL (YLD 1.41 Wt 13) 8699' - 4500'

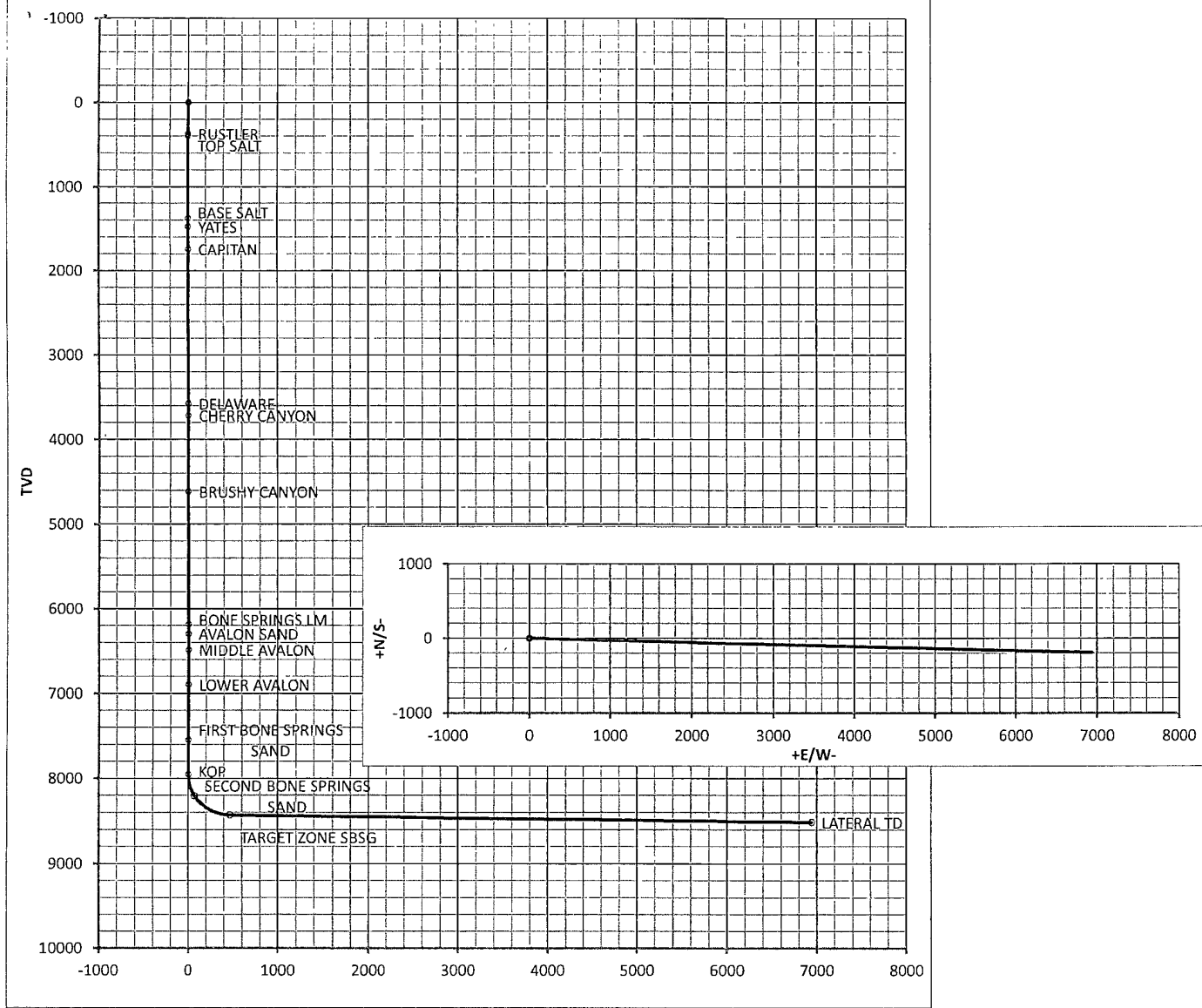
Stage II: Lead w/540sx 35:65.6 PzC (YLD 2.0 Wt 12.5), tail w/200sx Class C (YLD 1.34 Wt 14.8) 4500' - 0'

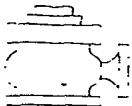
Production

7,700 ft to 12,776 ft				Make up Torque ft-lbs			Total ft = 5,076
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
4.5 inches	11.6 #/ft	L-80	BT&C				
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
6,350	7,780 psi	212 ,000 #		267 ,000 #		3.875	

4 1/2" liner will have a packer/port system in the lateral. No cement.

Co: Yates Petroleum Corporation	Units: Feet, ° 7100ft	VS Az: 91.61	Method: Minimum Curvature									
Drillers: 0	Elevation:	Map System: NAD83, St. Plane, Wyoming West										
Well Name: Antweil ANU Federal #4H	Northing:	Latitude:										
Location: Sec. 29, 19S-30E	Easting:	Longitude:										
Yates Petroleum Corporation: Antweil ANU Fed. #4H												
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	371.00	371.00	0.00	0.00	371.00	0.00	0.00	0.00	0.00	0.00	0.00	RUSTLER
2	396.00	25.00	0.00	0.00	396.00	0.00	0.00	0.00	0.00	0.00	0.00	TOP SALT
3	1376.00	980.00	0.00	0.00	1376.00	0.00	0.00	0.00	0.00	0.00	0.00	BASE SALT
4	1476.00	100.00	0.00	0.00	1476.00	0.00	0.00	0.00	0.00	0.00	0.00	YATES
5	1743.00	267.00	0.00	0.00	1743.00	0.00	0.00	0.00	0.00	0.00	0.00	CAPITAN
6	3576.00	1833.00	0.00	0.00	3576.00	0.00	0.00	0.00	0.00	0.00	0.00	DELAWARE
7	3716.00	140.00	0.00	0.00	3716.00	0.00	0.00	0.00	0.00	0.00	0.00	CHERRY CANYON
8	4616.00	900.00	0.00	0.00	4616.00	0.00	0.00	0.00	0.00	0.00	0.00	BRUSHY CANYON
9	6186.00	1570.00	0.00	0.00	6186.00	0.00	0.01	0.00	0.00	0.00	0.00	BONE SPRINGS LM
10	6296.00	110.00	0.00	0.00	6296.00	0.00	0.01	0.00	0.00	0.00	0.00	AVALON SAND
11	6486.00	190.00	0.00	0.00	6486.00	0.00	0.01	0.00	0.00	0.00	0.00	MIDDLE AVALON
12	6896.00	410.00	0.00	0.00	6896.00	0.00	0.01	0.00	0.00	0.00	0.00	LOWER AVALON
13	7546.00	650.00	0.00	0.00	7546.00	0.00	0.01	0.00	0.00	0.00	0.00	FIRST BONE SPRINGS
14	7955.02	409.02	0.00	91.61	7955.02	0.00	0.01	0.00	0.00	1.15	0.00	KOP
15	8000.00	44.98	5.40	91.61	7999.93	2.12	-0.05	2.12	12.00	0.00	12.00	
16	8100.00	100.00	17.40	91.61	8097.78	21.85	-0.61	21.84	12.00	0.00	12.00	
17	8200.00	100.00	29.40	91.61	8189.39	61.49	-1.72	61.46	12.00	0.00	12.00	
18	8219.27	19.27	31.71	91.61	8205.98	71.28	-2.00	71.25	12.00	0.00	12.00	SECOND BONE SPRING
19	8300.00	80.73	41.40	91.61	8270.75	119.31	-3.34	119.26	12.00	0.00	12.00	
20	8400.00	100.00	53.40	91.61	8338.32	192.79	-5.41	192.71	12.00	0.00	12.00	
21	8500.00	100.00	65.40	91.61	8389.13	278.70	-7.82	278.59	12.00	0.00	12.00	
22	8600.00	100.00	77.40	91.61	8420.97	373.30	-10.48	373.16	12.00	0.00	12.00	
23	8698.85	98.85	89.26	91.61	8432.44	471.30	-13.23	471.11	12.00	0.00	12.00	TARGET ZONE SBSG
24	15168.59	6469.74	89.26	91.61	8516.00	6940.50	-194.98	6937.76	0.00	0.00	0.00	LATERAL TD

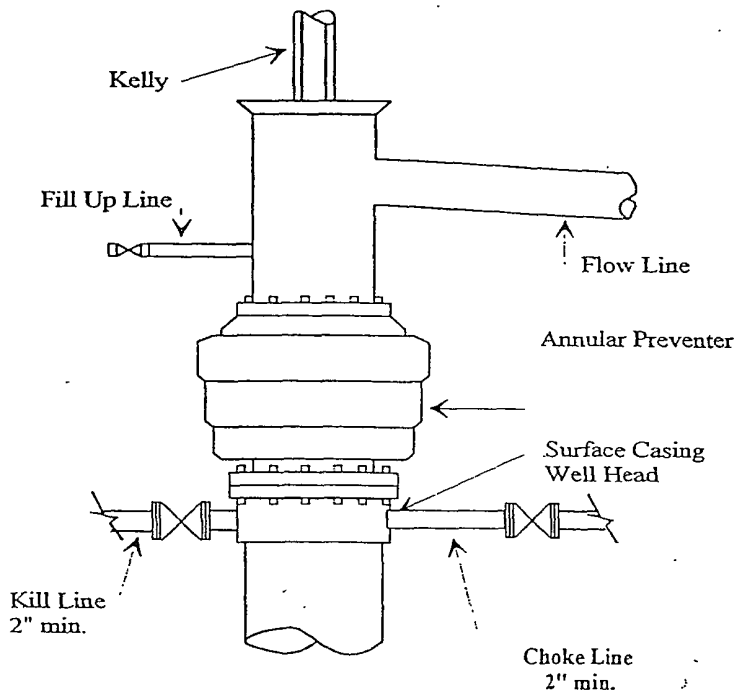




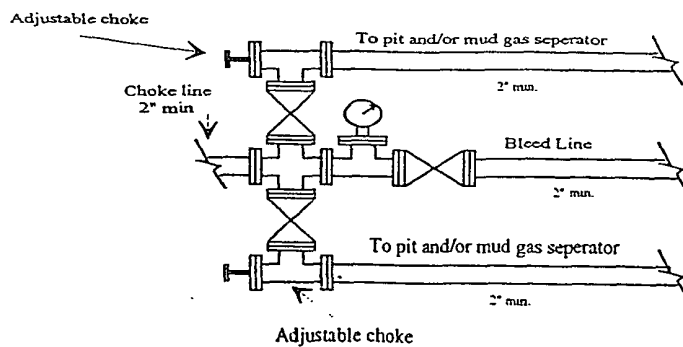
Yates Petroleum Corporation

BOP-1

Typical low Pressure System
Schematic
Annular Preventer 2,000 psi



Typical 2,000 psi choke manifold assembly with at least these minimum features



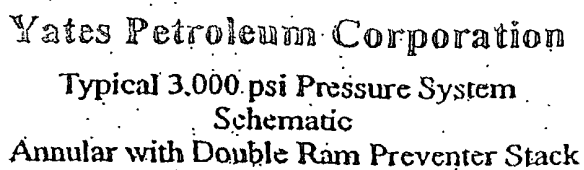


Diagram illustrating the components of a wellhead assembly:

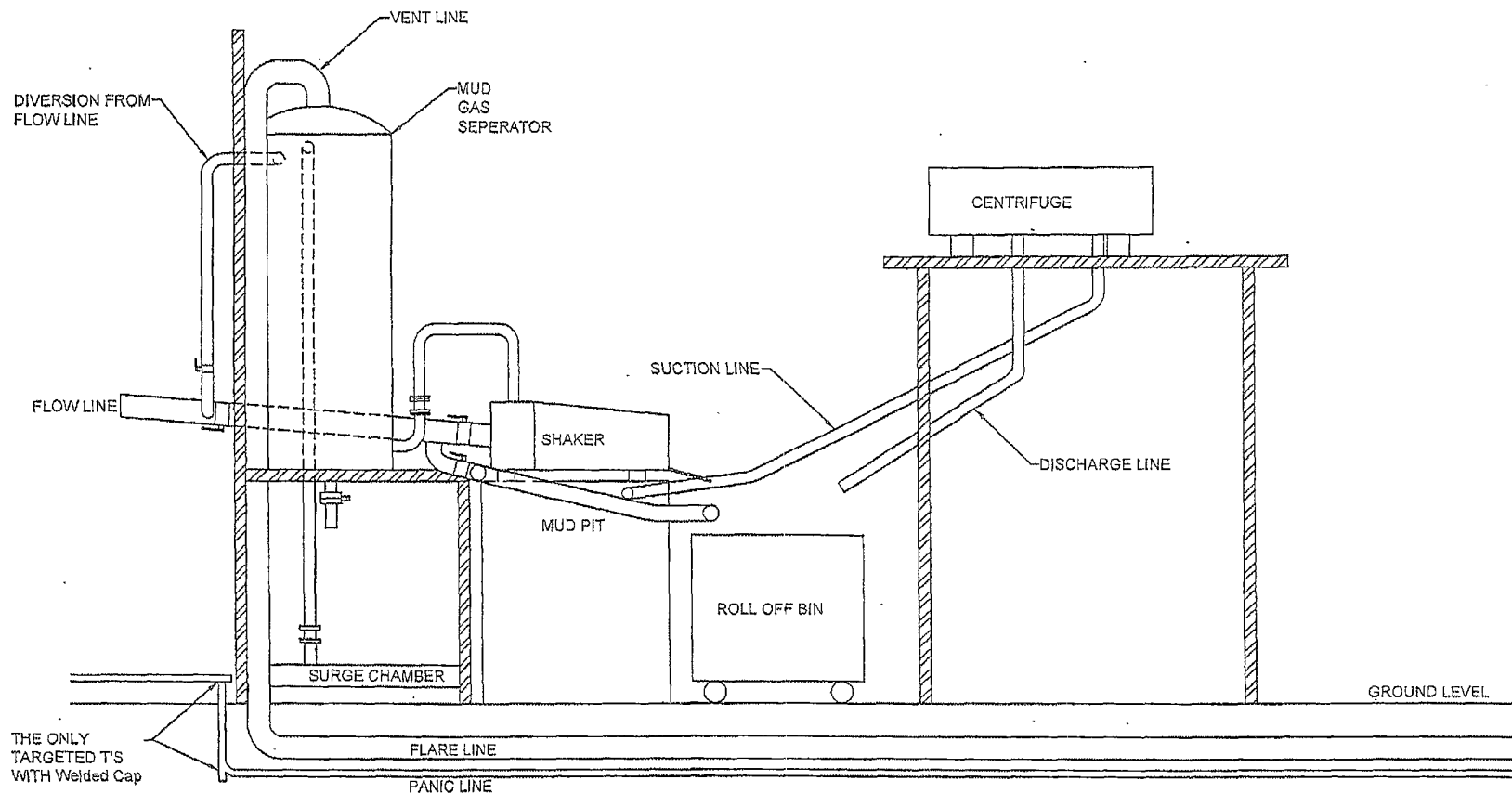
- Kelly
- Fill Up Line
- Flow Line
- Annular Preventer
- Blind Rams
- Pipe Rams
- Choke Line
- Intermediate Casing Well Head
- Intermediate Casing
- Check Valve sequence optional

The diagram illustrates a wellhead control system with the following components and connections:

- Adjustable choke**: Located at the top left, with an arrow pointing to it.
- To pit and/or mud gas separator**: A line extending from the top right, labeled "2" min." and "3" min.".
- To blowout preventer stack**: A line extending from the middle left, labeled "3" min.".
- Choke line**: A line extending from the middle left, labeled "3" min.".
- Bleed Line**: A line extending from the middle right, labeled "3" min.".
- To pit and/or mud gas separator**: A line extending from the bottom right, labeled "2" min.".
- Adjustable choke**: Located at the bottom left, with an arrow pointing to it.

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

Closed Loop System

Equipment Design Plan

Closed Loop System will consist of:

1 – double panel shale shaker

1 – (minimum) Centrifuge, certain wells and flow rates may require 2 centrifuges

On certain wells, the Centrifuge will be replaced by a Clackco Settling Tank System

1 – minimum centrifugal pump to transfer fluids

2- 500 bbl. FW Tanks

1 – 500 bbl. BW Tank

1 – half round frac tank – 250 bbl. capacity as necessary to catch cement / excess mud returns generated during a cement job.

1 Set of rail cars / catch bins

Certain wells will use an ASC Auger Tank

Operation Plan

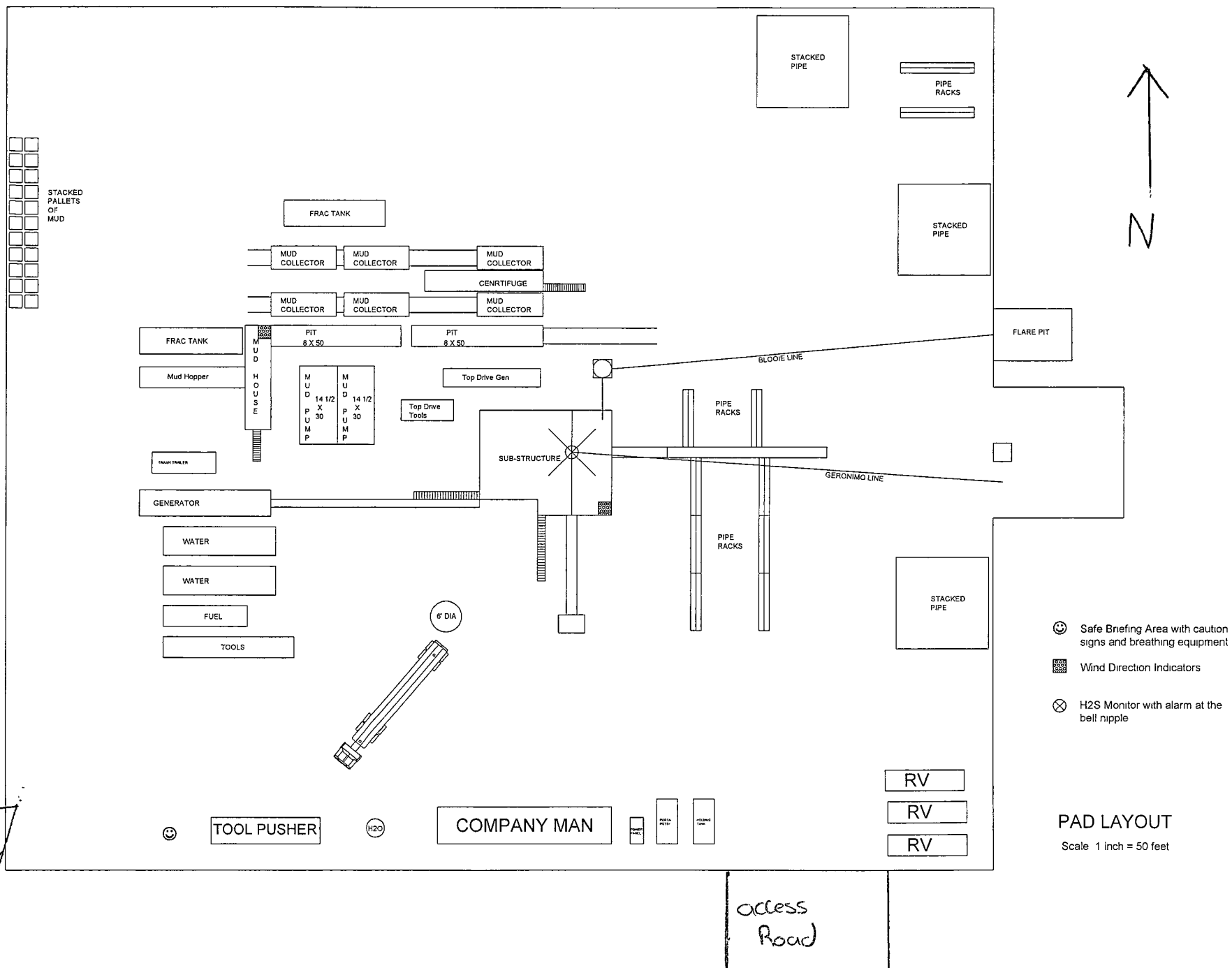
All equipment will be inspected at least hourly by rig personnel and daily by contractors' personnel.

Any spills / leaks will be reported to YPC, NMOCD, and cleaned up without delay.

Closure Plan

Drilling with Closed Loop System, haul off bins will be taken to Gandy Marley, Lea Land Farm, CRI or Sundance Services Inc.

YATES PETROLEUM CORPORATION



Yates Petroleum Corporation

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H₂S).
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H₂S on metal components. If high tensile tubular are to be used, personnel well be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H₂S Drilling Operations Plan and H₂S Contingency Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operation Plan and the H₂S Contingency Plan. **The location of this well does not require a Public Protection Plan.**

II. H2S SAFETY EQUIPMENT AND SYSTEMS

NOTE: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H2S.

1. Well Control Equipment:

- A. Flare line
- B. Choke manifold
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment may include if applicable: annular preventer & rotating head.

2. Protective equipment for essential personnel:

- A. Mark II Survive Air (or equivalent) 30-minute units located in the doghouse and at briefing areas, as indicated on well site diagram.

3. H2S detection and monitoring equipment:

- A. 3 portable H2S monitors positioned at: Shale Shaker, Bell Nipple, and Rig Floor. These units have warning lights and audible sirens when H2S levels of 10 PPM are reached.

4. Visual warning systems:

- A. Wind direction indicators as shown on well site diagram (attached).
- B. Caution/Danger signs (attached) shall be posted on roads providing direct access to location. Signs will be painted with high visibility yellow with black lettering of a sufficient size to be readable at a reasonable distance from the immediate location. Bilingual signs will be used, when appropriate. See example attached.

5. Mud program:

- A. The mud program has been designed to minimize the volume of H2S circulated to the surface. Proper mud weight, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

6. Metallurgy:

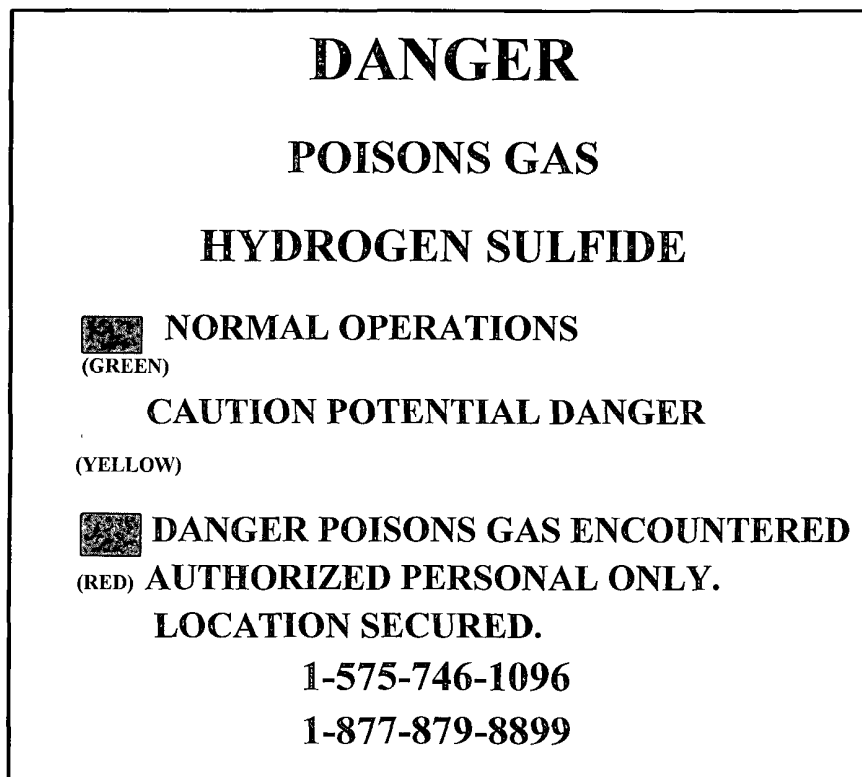
- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- B. All elastomers used for packing and seals shall be H2S trim.

7. Communication:

- A. Cellular communications in company vehicles.
- B. Land line (telephone) communication at the Office.

8. Well testing:

- A. There will be no drill stem testing.

EXHIBITEDDY COUNTY EMERGENCY NUMBERS

ARTESIA FIRE DEPT. 575-746-5050

ARTESIA POLICE DEPT. 575-746-5000

EDDY CO. SHERIFF DEPT. 575-746-9888

LEA COUNTY EMERGENCY NUMBERS

HOBBS FIRE DEPT. 575-397-9308

HOBBS POLICE DEPT. 575-397-9285

LEA CO. SHERIFF DEPT. 575-396-1196

Yates Petroleum Corporation
105 S. Fourth Street
Artesia, NM 88210

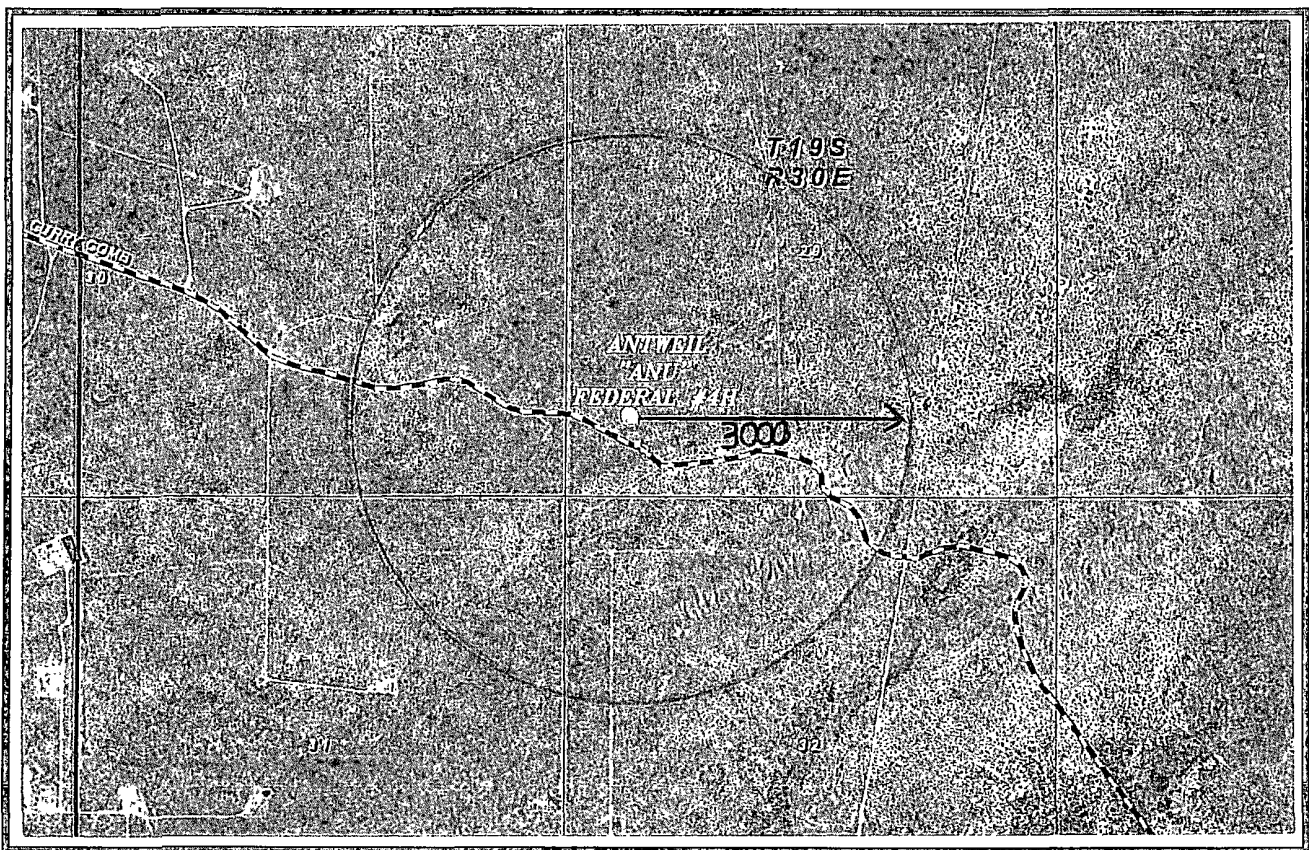
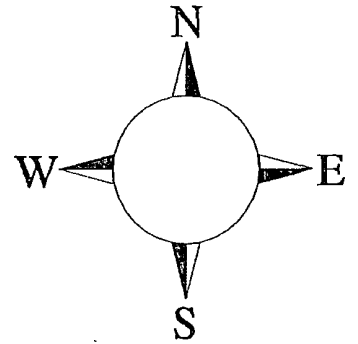
Hydrogen Sulfide (H₂S) Contingency Plan

For

Antweil ANU Federal #4H
860' FSL & 660' FWL
Section 29, T19S-R30E
Eddy County NM

Antweil ANU Federal #4H

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
Wade Bennett/Prod Superintendent	(575) 748-4236
LeeRoy Richards/Assistant Prod Superintendent	(575) 748-4228
Mike Larkin/Drilling	(575) 748-4222
Paul Hanes/Prod. Foreman/Roswell	(575) 624-2805
Tim Bussell/Drilling Superintendent	(575) 748-4221
Artesia Answering Service	(575) 748-4302
(During non-office hours)	

Agency Call List

Eddy County (575)

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
New Mexico State Emergency Operations Center.....	(505) 476-9635
National Emergency Response Center (Washington, DC)	...(800) 424-8802

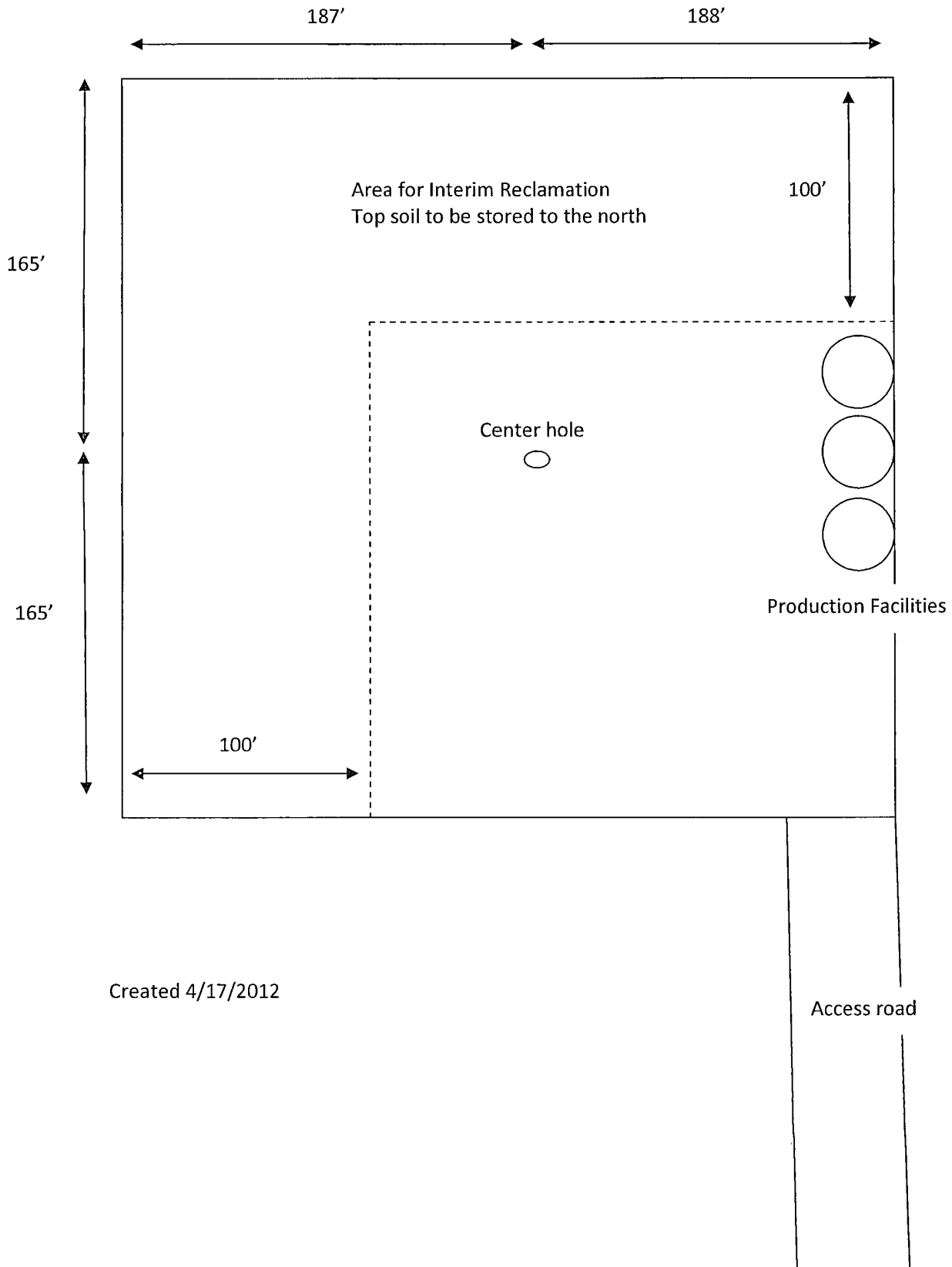
Other

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

Interim Reclamation Well Pad Layout Example*

*dimensions will vary according to well location specifics

North



Created 4/17/2012

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	YATES PETROLEUM CORPORATION
LEASE NO.:	LC-062376
WELL NAME & NO.:	ANTWEIL ANU FEDERAL #4H
SURFACE HOLE FOOTAGE:	0860'/S. & 0660'/W.
BOTTOM HOLE FOOTAGE:	0660'/S. & 2310'/W. (Sec. 28)
LOCATION:	Section 29, T. 19 S., R. 30 E., NMPM
COUNTY:	Eddy County, New Mexico

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
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- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☒ **Special Requirements**
 - Berming**
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 - Notification
 - Topsoil
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 - Federal Mineral Material Pits
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 - Electric Lines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**