OMB No 1004-0137 Expires July 31, 2010 UNITED STATES Lease Serial No. RTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT If Indian, Allotee or Tribe Name APPLICATION FOR PERMIT TO DRILL OR REENTER 7 If Unit or CA Agreement, Name and No. **✓** DRILL REENTER la. Type of work: Lease Name and Well No. ✓ Oil Well Gas Well Multiple Zone Juniper "BIP" Federal #10H lb. Type of Well: ✓ Single Zone Name of Operator YATES PETROLEUM CORPORATION 9 API Well No. 3a. Address 105 SOUTH FORUTH STREET

> Section 4-24S-29E 12 County or Parish 13 State NM Eddy 17 Spacing Unit dedicated to this well N2N2 20 BLM/BIA Bond No. on file

11. Sec, T. R. M. or Blk and Survey or Area

24. Attachments

22. Approximate date work will start\*

575-748-1471

Unit F

16 No. of acres in lease 878.94

19 Proposed Depth

04/30/2010

6650-VD, 10726-MD

Unit D

The toll	owing, c	ompleted	in accordance	with	the requirements of	Onshore	Oil and Gas	Order No.	l, must	be attache	d to thi	s form:
----------	----------	----------	---------------	------	---------------------	---------	-------------	-----------	---------	------------	----------	---------

1. Well plat certified by a registered surveyor.

ARTESIA, NM

property or lease line, ft (Also to nearest drig. unit line, if any)

Distance from proposed\*

18 Distance from proposed location\*

to nearest well, drilling, completed, applied for, on this lease, ft

location to nearest

2. A Drilling Plan.

3064' GL

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 Location of Well (Report location clearly and in accordance with any State requirements \*)

330

30

At proposed prod. zone 660' FNL & 330' FEL, Section 4-24S-29E

At surface 360' FNL & 680' FWL, Section 4-24S-29E

14 Distance in miles and direction from nearest town or post office\*

Elevations (Show whether DF, KDB, RT, GL, etc.)

Approximately 6 miles east of Malaga, New Mexico

Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).

Nationwide Bond NMB000434

23. Estimated duration

60 Days

- Operator certification
- Such other site specific information and/or plans as may be required by the

25 Signature Name (Printed/Typed) Cy Cowan 03/24/2010 Title Land Regulatory Agent Approved by (Signature) Name (Printed/Typed)

Title

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

SEE ATTACHED FOR CONDITIONS OF APPROVA

> APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

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

State of New Mexico Energy, Minerals and Natural Resources Department

Form C-102 Revised October 15, 2009

Submit one copy to appropriate

DISTRICT II 1301 W. Grand Avenue, Artesia, NM 88210 DISTRICT III

### OIL CONSERVATION DIVISION

District Office

1000 Rio Brazos Rd., Aztec, NM 87410 DISTRICT IV 1220 S. St. Francis Dr., Santa Fe. NM 87505

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

30-015-379	Pool Code 42940	MALAGAT Brashy
Property Code 36237	Property Na JUNIPER "BIP"	me Well Number FEDERAL 10H
OGRID No. 25575	Operator Na YATES PETROLEU	

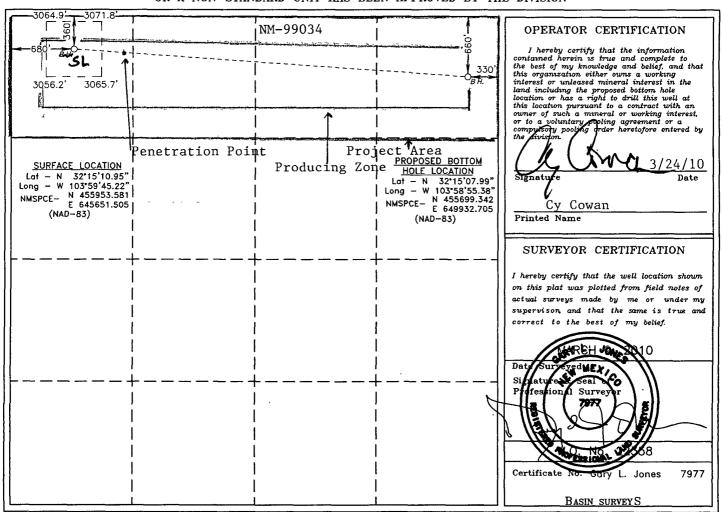
#### Surface Location

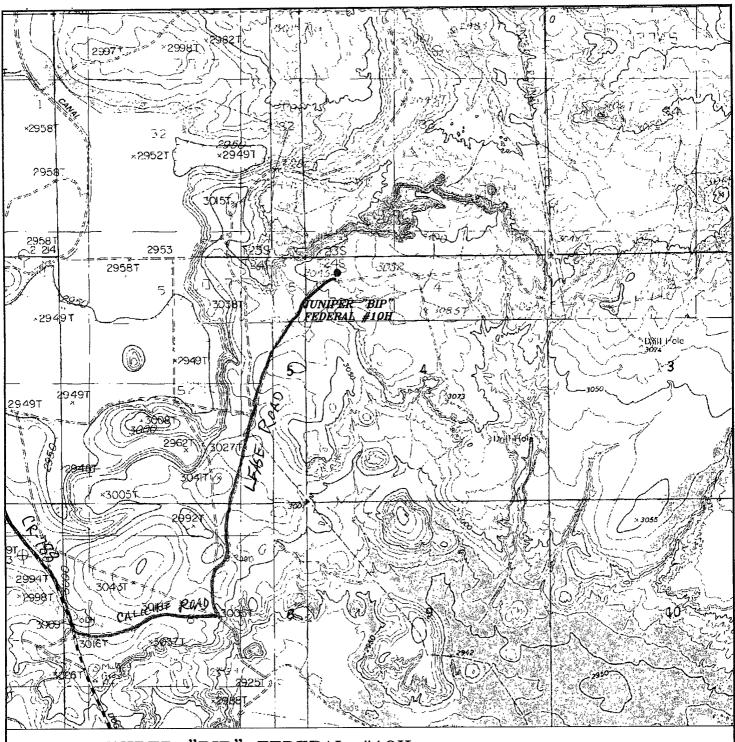
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	4	24 S	29 E		360	NORTH	680	WEST	EDDY

#### 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
Α	4	24 S	29 E		660	NORTH	330	EAST	EDDY
Dedicated Acre	Joint o	r Infill	Consolidation (	Code Or	der No.				
160	Ì								

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





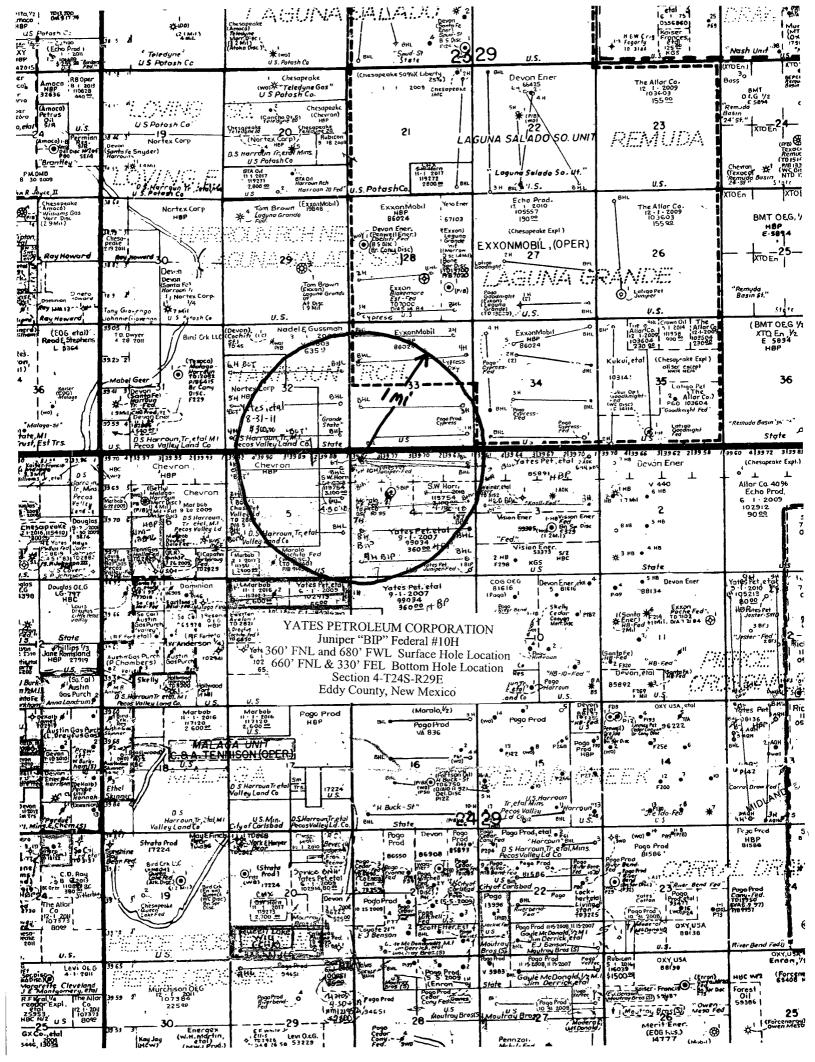
JUNIPER "BIP" FEDERAL #10H Located 360' FNL and 680' FEL Section 4, Township 24 South, Range 29 East, N.M.P.M., Eddy County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (575) 393-7316 - Office (575) 392-2206 - Fax basinsurveys.com

W.O. N	umber:	JMS	22358	
Survey	Date:	03-0	9-2010	
Scale:	1" = 20	000'		
Date:	03-10-	-2010	and a result of the control of the con-	

YATES PETROLEUM CORP.



#### YATES PETROLEUM CORPORATION

Juniper "BIP" Federal #10H

360' FNL and 680' FWL Surface Hole Location 660' FNL & 330' FEL Bottom Hole Location

Section 4-T24S-R29E

Eddy County, New Mexico

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

Rustler	340'	Cherry Canyon	3820'-Oil
Top of Salt	650'	Brushy Canyon	5080'-Oil
Bottom of Salt	2790'	Brushy Canyon Marker	6390'-Oil
Bell Canyon	3060 Oi	il Brushy Target	6650'-Oil
·		TVD	6650'
•		TMD	10726'

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

-Water: 35'
Oil or Gas: Oil Zones: 3060', 3820', 5080', 6390' & 6650'.

- 3. Pressure Control Equipment: BOPE will be installed on the 13 3/8" and the 9 5/8" casing and rated for 3000# BOP System. 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>	Casing Size	Wt./Ft	<u>Grade</u>	Coupling	<u>Interval</u>	Length
Spe	17 1/2"	13 3/8"	48#	H-40	ST&C	0-600'	600'
See COA	12 1/4"	9 5/8"	36#	J-55	· ST&C	0-2900'	2900'
COM	7 7/8"	5.1/2"	17#	HCP- 1	10 LT&C	0'-7000'	7000'
	7 7/8'	5 1/2"	17#	L-80	LT&C	7000'-1072	6' 3726'

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

#### **B. CEMENTING PROGRAM:**

Surface Casing: Lead with 350 sacks Class C (Wt. 14.80 Yld 1.64). Tail in with 200 sacks Class C (Wt. 14.80 Yld. 1.34). TOC surface.

Intermediate Casing: Lead with 750 sacks of C Lite (Wt 12.50 Yld 2.00). Tail in with 210 sacks C (Wt. 14.80 Yld. 1.32). TOC surface

Production Casing: Stage One: Cement with 1600 sacks Pecos Valley Lite (Wt 13.00 Yld 1.41). TOC 4200'. DV Tool set approximately 4200.'

Juniper "BIP" Federal #10H Page Two

Stage Two: Lead with 450 sacks Pecos Valley Lite (Wt 13.00 Yld. 1.41). TOC Surface.

COA

Well will be drilled vertically to 6173'. At 6173' well will be kicked off at 12 degrees per 100' with a 7 7/8" hole to 10726' MD (6650' TVD) where 5 ½" casing will be set and cemented. Penetration point of producing zone will be encountered at 393' FNL & 1156' FWL, 17-21S-32E. Deepest TVD in the well is 6650' in the lateral.

#### 6. MUD PROGRAM AND AUXILIARY EQUIPMENT:

	_	<u>Interval</u>	<u>Type</u>	Weight	Viscosity	Fluid Loss
	See		Fresh Water	8.60-9.20	29-346	N/C
-	COA	600'-2900'	Brine Water	10.00-10.20	28-30	N/C
	0071	2900'-6173'	Cut Brine	8.90-9.10	28-29	N/C
		6173'-10726'	Cut Brine(Lateral Section)	8.60-9.00	28-34	<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. Rig personnel will check mud hourly.

#### 7. EVALUATION PROGRAM:

Samples: Mudloggers on at surface casing

Logging: Platform Hals-CMR - See COA

Coring: None anticipated DST's: None Anticipated

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

Maximum Anticipated BHP:

0'-600' 287 PSI 600'-2900' 1538 PSI 2900'-6650' 3112 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:

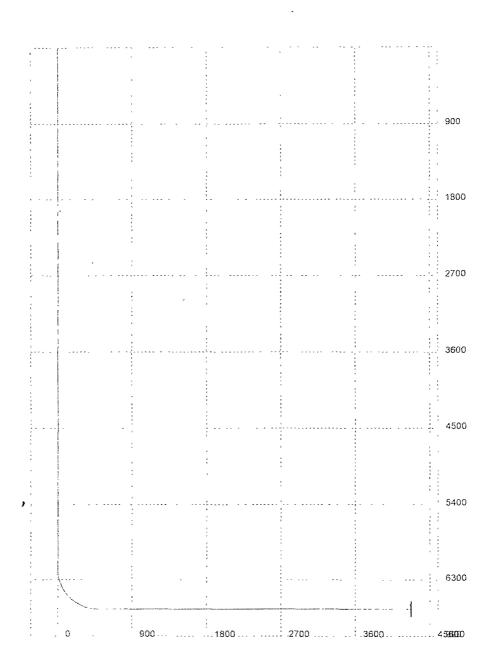
Plans are to drill this well as soon as possible after receiving approval. It should take approximately 60 days to drill the well with completion taking another 20 days.

M.D.	Inclination	Azimuth	T.V.D.	N+/S-	E+/W-	D.L.S.	ToolFace.	T.F. Réf [HS/GN]	THE THE LAND
0	0	0	0	0	0	0		,	
340	0	0	340	0	0	0			RUSTLER
650	0	0	650	0	0	0			TOP OF SALT
2,790	0	0	2,790	0	0	0			BASE OF SALT
3,060	0	0	3,060	0	0	0			BELL CANYON
3,820	0	0	3,820	0	0	0			CHERRY CANYON
5,080	0	0	5,080	0	0	0			<b>BRUSHY CANYON</b>
6173	05.7	- 40 Lan	6173	大学 10所证据	0	12	94	GN GN	KOP
6175	0.24	94 02	6175	0	0	12	0	HS	
6200	3.24	94 02	6199.99	-0 05	0 76	12	0	HS	
6225	6 24	94 02	6224 9	-0.2	2 82	12	0	HS	
6250	9.24	94.02	6249.67	-0 43	6.18	12	360	HS	
6275	12.24	94.02	6274.23	-0 76	10 83	12	0	HS	
6300	15 24	94 02	6298 51	-1 18	16.75	12	360	HS	
6325	18.24	94.02	6322.45	-1 68	23.93	12	0	HS	
6350	21.24	94.02	6345.97	-2.27	32 35	12	0	HS	
6375	24.24	94 02	6369.03	-2 95	41 99	12	0	HS	
6399	27 12	94.02	6390 66	-3 68	52.37	12	0	HS	BRUSHY CANYON MARKER
6400	27 24	94 02	6391.54	-3 71	52 82	12	0	HS	
6425	30.24	94.02	6413.46	-4.55	64 81	12	0	HS	
6450	33.24	94 02	6434.72	-5.48	77 93	12	0	HS	
6475	36.24	94 02	6455 26	-6 47	92 14	12	0	HS	
6500	39 24	94,02	6475.03	-7 55	107.4	12	0	HS	
6525	42.24	94.02	6493 97	-8.69	123 68	12	0	HS	
6550	45.24	94 02	6512 03	-9 9	140 92	12	360	HS	
6575	48 24	94 02	6529.16	-11 18	159 08	12	360	HS	
6600	51.24	94.02	6545.32	-12.51	178.1	12	00	HS	
6625	54 24	94 02	6560.45	-13.91	197.95	12	360	HS	
6650	57.24	94 02	6574 52	-15.36	218 56	12	360	HS	
6675	60.24	94.02	6587 49	-16 85	239 88	12	0	HS	
6700	63 24	94.02	6599.33	-18 4	261.84	12	360	HS	
6725	66.24	94.02	6610	-19 98	284.39	12	360	HS	
6750	69 <sup>.</sup> 24	94.02	6619.46	-21.6	307.47	12	360	HS	
6775	72 24	94.02	6627.71	-23.26	331.01	12	360	HS	
6800	75.24	94.02	6634 71	-24.94	354.95	12	360	HS	
6825	78.24	94.02	6640 44	-26.64	379.22	12	0	HS	
6850	81.24	94.02	6644 9	-28 37	403 75	12	0	HS	
6875	84.24	94.02	6648 05	-30 1	428.49	12	0	HS	
6900	87.24	94.02	6649 91	-31 85	453 36	12	0	HS	
6923.06	74			-33.47		<b>*</b> 20 West			BRUSHY TARGET
10726.06	90.01	94.02	6650	-300	4270	7.40	· 基本、以间距	ALL MEDICE CONTROL	LATERAL TD

Well will be drilled vertically to 6173'. At 6173' well will be kicked off at 12 degrees per 100' with a 7 7/8" hole to 10,726' MD (6,650' TVD)where 5 1/2" casing will be set and cemented. Penetration point of producing zone will be at 393' FNL and 1156' FWL, 4-24S-29E. Deepest TVD in the well is 6650' in the lateral.

Company: Yates Petroleum Corporation

Well: Juniper BIP Federal #10H

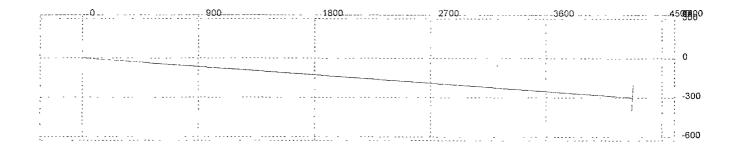


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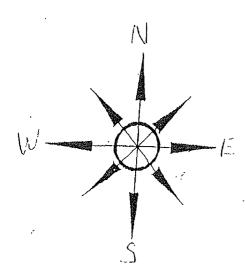
#### 3D³ Directional Drilling Planner - 3D View

Company: Yates Petroleum Corporation

Well: Juniper BIP Federal #10H



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# Yates Petroleum Corporation Location Layout for Permian Basin

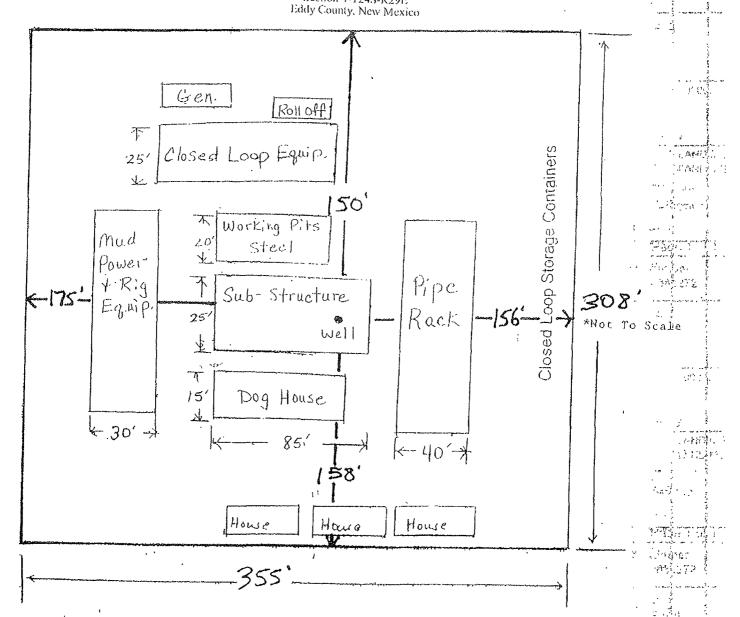
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#### Closed Loop Design Plan

YATES PETROLEUM CORPORATION Juniper "BIP" Federal #10H
360' FNL and 680' FWL Surface Hole Location
660' FNL & 330' FEL Bottom Hole Location Section 4-T24S-R29E



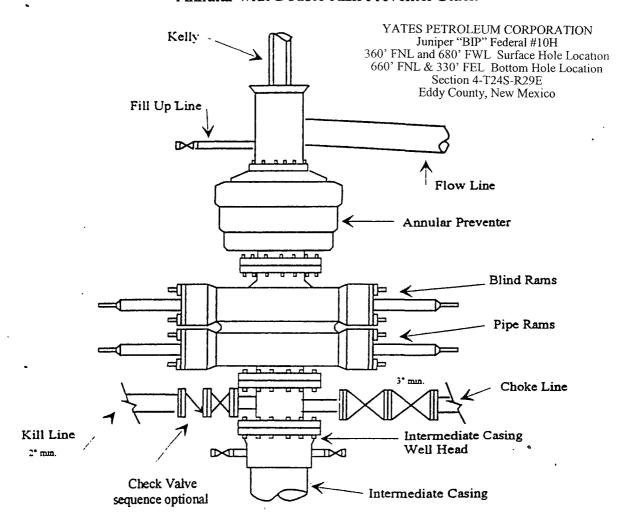
Juniper 6-Y \$ 10-14 3-29-10 SP OK ByML. North

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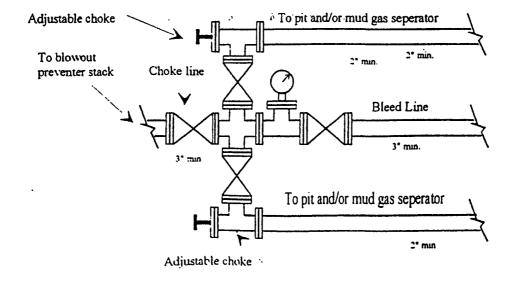
Cut Aren Need To Add 37' Cut Area 133' KIL kret €205'> 10-H 300'N-670'W ←155'→ West 660'N-330'E' Brushy CANYON 6650 Kick Off NeedTo 64=330'N-880'W 660'N-330'E Add 10' Bone Springs 7871' Kick Off 制

#### Yates Petroleum Corporation

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

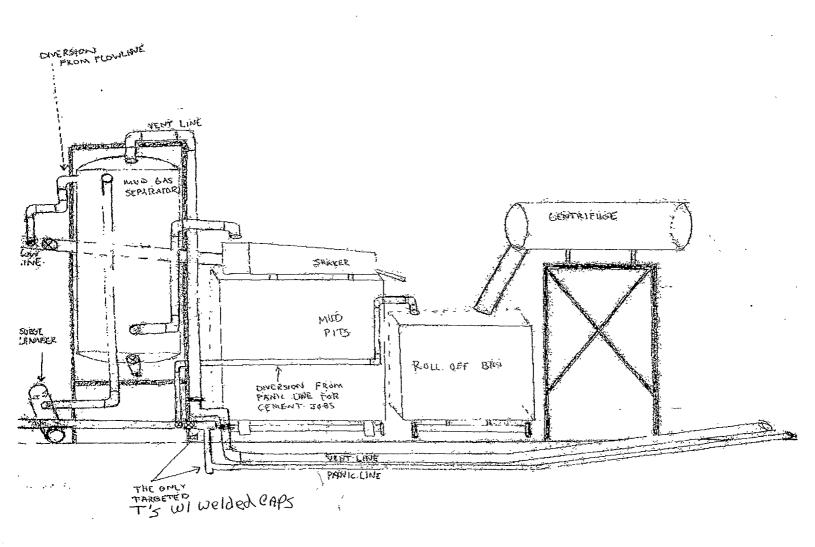


Typical 3,000 psi choke manifold assembly with at least these minimun features



# YATES PETROLEUM CORPORATION Piping from Choke Manifold to the Closed-Loop Drilling Mud System

YATES PETROLEUM CORPORATION
Juniper "BIP" Federal #10H
360' FNL and 680' FWL Surface Hole Location
660' FNL & 330' FEL Bottom Hole Location
Section 4-T24S-R29E
Eddy County, New Mexico



# **Yates Petroleum Corporation**

105 S. Fourth Street Artesia, NM 88210

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

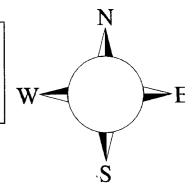
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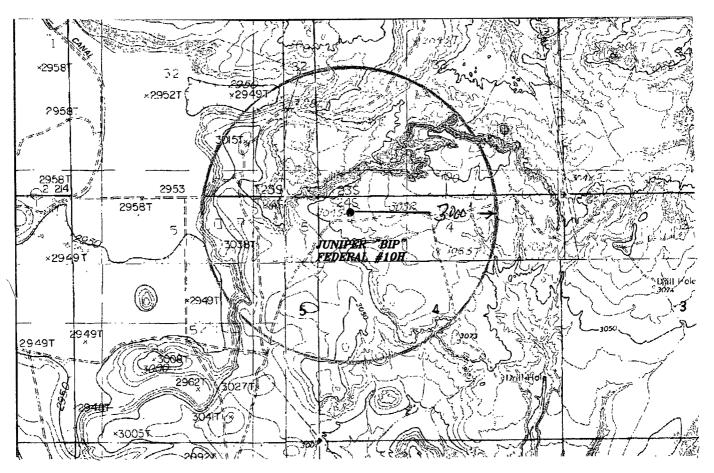
Juniper "BIP" Federal #10H

360' FNL, 680' FWL Surface Hole Location 660' FNL and 3300' FEL Bottom Hole Location Section 4 T-24S, R-29E Eddy County NM

# Juniper "BIP" Federal #10H Location

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





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

#### **Emergency Procedures**

In the case of a release of gas containing H<sub>2</sub>S, 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 H<sub>2</sub>S, measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H<sub>2</sub>S 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 (SO<sub>2</sub>). 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 H<sub>2</sub>S and SO<sub>2</sub>

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentr- ation
Hydrogen Sulfide	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	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
Paul Ragsdale/Operations Manager	
Wade Bennett/Prod Superintendent	
LeeRoy Richards/Assistant Prod Superintendent	(575) 748-4228
Mike Larkin/Drilling	
Paul Hanes/Prod. Foreman/Roswell	` /
Tim Bussell/Drilling Superintendent	` ,
Artesia Answering Service	
(During non-office hours)	
Agency Call List	
Eddy County (575)	
Artesia	
State Police	746-2703
City Police	746-2703
Sheriff's Office	
Ambulance	
Fire Department	746-2701
LEPC (Local Emergency Planning Committee)	
NMOCD	748-1283
Carlsbad	
State Police	885-3137
City Police	885-2111
Sheriff's Office	887-7551
Ambulance	
Fire Department	
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)	
Other	` ,
Boots & Coots IWC1-800-256-9688 or (281) 931-8884 Cudd Pressure Control(915) 699-0139 or (915) 563-3356	
Halliburton(575) 746-2757	
B. J. Services(575) 746-3569	
D. J. Scrvices(373) 740-3303	
Flight For Life -4000 24th St, Lubbock, TX	(806) 743-9911
Aerocare -Rr 3 Box 49f, Lubbock, TX	
Med Flight Air Amb 2301 Yale Blvd SE #D3, Albuq, NM	
S B Air Med Svc 2505 Clark Carr Loop SE, Albuq, NM	
= 12 bit we de dimin dans moop bas, smoug, smit in initia	(000) 012 1717

## MULTI-POINT SURFACE USE AND OPERATIONS PLAN YATES PETROLEUM CORPORATION

Juniper "BIP" Federal #10H 360' FNL & 680' FWL, Surface 660' FNL & 330' FEL, Bottom Hole Section 4-T24S-R29E 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 6 miles east of Malaga, New Mexico and the access route to the location is indicated in red and green on Exhibit A.

DIRECTIONS: Go east of Malaga, NM on Duarte Road (CR-720) for about 0.7 of a mile to Harroun Road 9CR-745). Turn left on Harroun Road angd go about 2.9 miles to Dog Town Road (CR-788). Turn right on Dog Town Road for about 1.1 miles. Turn left here on caliche road andgo approximately 0.6 of a mile. Turn left here on lease road going to the north and go about 0.8 of a mile to a cattle guard. Continue going north on road for about 0.6 of a mile. The existing lease road will go to the southwest corner of the Juniper "BIP" Federal #6H location. Both wells will share this location.

#### 2. PLANNED ACCESS ROAD:

- A. No new road will be needed.
- B. Existing roads will be maintained in the same or better condition.

#### 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 until an electric line can be built, if needed.

#### 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 be responsible for finding a source of material for construction of road and pad and will obtain any permits that may be required.

#### 7. METHODS OF HANDLING WASTE DISPOSAL:

- A. This well will be drilled with a closed loop system
- B. The closed loop system will be constructed, maintained, and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division the "Pit Rule" 19.15.17 NMAC.
- C. Drilling fluids will be removed after drilling and completions are completed.
- D. Water produced during operations will be collected in tanks until hauled to an approved disposal system, or separate disposal application will be submitted.
- E. Oil produced during operations will be stored in tanks until sold.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- G. 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 closed loop system, the location of the drilling equipment, drilling rig orientation and access road approach.
- B. The closed loop system will be constructed, maintained, and closed in compliance with the State of New Mexico, Energy and Natural Resources Department, Oil Conservation Division the "Pit Rule" 19.15.17 NMAC.
- C. A 600' x 600' 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 have been leveled.
- C. If the proposed well is plugged and abandoned, all rehabilitation and/or vegetation requirements of the Bureau of Land Management will be complied with and will be accomplished as expeditiously as possible.

#### 11. SURFACE OWNERSHIP:

Federal Lands under the supervision of the Carlsbad BLM. .

#### 12. OTHER INFORMATION:

- A. The primary use of the surface is for grazing.
- B. Refer to the archaeological report for a description of the topography, flora, fauna, soil characteristics, dwellings, and historical and cultural sites.

#### Plans for Interim and Final Surface Reclamation.

- 1. Well location will be contoured to resemble the original topography as closely as possible. Surface reclamation measures will be taken to avoid new erosion on the well location and the area surrounding the well location. These measures will be overseen by Yates' personnel following a structured plan for the reclamation of each individual site.
- 2. Major drainage systems will be avoided as determined at the onsite with the BLM. Minor drainages may be rerouted around the well site within the 600' x 600' cleared area to avoid moving the well location.
- 3. Segregation of topsoil or like soils will be placed in low lift rows rather than in a stockpile just off the caliche well pad. Placement of these lift rows will be determined at the BLM onsite or at the time of construction by Yates Personnel.
- 4. Yates will use prudent oil field practices when constructing well locations and related facilities. Yates personnel will determine the size of the well location needed for safe working conditions for personnel during all aspects on the drilling and production process.
- 5. Back fill requirements for above ground reserve pits will be met by using cut, fill, and contouring of available top soil and like soils from the pit area. Should additional material be needed it will be brought in from a BLM approved source.
- 6. All topsoil will be spread over the area reclaimed during interim reclamation using a front end loader. For final reclamation enough topsoil will be evenly distributed between the interim reclaimed area and the final reclaimed area. This method of soil stabilization should help maintain the productivity and viability of the topsoil.
- 7. Soil treatments will be determined at the time of final reclamation by Yates' Environmental Specialist or other designated personnel to meet BLM final reclamation goals.
- 8. Reseeding of disturbed areas will be accordance with the seed mixtures attached to the approved APD as Conditions of Approval. Planting and soil preparation will be done during the rainy season between June 1st and September 1st.
- 9. Yates' personnel will control weeds during the productive period through final abandonment of the well. Yates may also use the option to hire a third party to be in charge of weed control or participate in the Chaves Soil and Water District program to pool monies for weed control.
- 10. Well pads, roads and related facilities with caliche or other surfacing material will be picked up or turned over at the time of final abandonment. These materials may be used on other projects in the area if possible or placed back in the caliche pit or other designated site. Buried pipelines will be left in place after being bled down and purged. Above surface support equipment will be removed or cut down below plow depth and removed. Pipeline right-of-ways will be reseeded according to BLM Best Management Practices.

# CERTIFICATION YATES PETROLEUM CORPORATION Juniper "BIP" Federal #10H 360' FNL & 680' FWL, Surface Hole 660' FNL & 330' FEL, Bottom Hole Section 4-T24S-R29E Eddy County, New Mexico

I hereby certify that I or the company I represent, have inspected the drill site and access route proposed herein; that the company I represent is familiar with the conditions which currently exist; that 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 the company I represent is 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 24th day of March, 2010
Printed Name Cy Cowan
Signature ( ) Sva-
Position Title Land Regulatory Agent
Address 105 South Fourth Street, Artesia, NM 88210
Telephone <u>575-748-4376</u>
E-mail (optional) cy@yatespetroleum.com
Field Representative (if not above signatory) Tim Bussell
Address (if different from above) Same
Telephone (if different from above) 575-748-4221
E-mail (optional)

#### Plans for Interim and Final Surface Reclamation.

- 1. Well location will be contoured to resemble the original topography as closely as possible. Surface reclamation measures will be taken to avoid new erosion on the well location and the area surrounding the well location. These measures will be overseen by Yates' personnel following a structured plan for the reclamation of each individual site.
- 2. Major drainage systems will be avoided as determined at the onsite with the BLM. Minor drainages may be rerouted around the well site within the 600' x 600' cleared area to avoid moving the well location.
- 3. Segregation of topsoil or like soils will be placed in low lift rows rather than in a stockpile just off the caliche well pad. Placement of these lift rows will be determined at the BLM onsite or at the time of construction by Yates Personnel.
- 4. Yates will use prudent oil field practices when constructing well locations and related facilities. Yates personnel will determine the size of the well location needed for safe working conditions for personnel during all aspects on the drilling and production process.
- 5. Back fill requirements for above ground reserve pits will be met by using cut, fill, and contouring of available top soil and like soils from the pit area. Should additional material be needed it will be brought in from a BLM approved source.
- 6. All topsoil will be spread over the area reclaimed during interim reclamation using a front end loader. For final reclamation enough topsoil will be evenly distributed between the interim reclaimed area and the final reclaimed area. This method of soil stabilization should help maintain the productivity and viability of the topsoil.
- 7. Soil treatments will be determined at the time of final reclamation by Yates' Environmental Specialist or other designated personnel to meet BLM final reclamation goals.
- 8. Reseeding of disturbed areas will be accordance with the seed mixtures attached to the approved APD as Conditions of Approval. Planting and soil preparation will be done during the rainy season between June 1st and September 1st.
- 9. Yates' personnel will control weeds during the productive period through final abandonment of the well. Yates may also use the option to hire a third party to be in charge of weed control or participate in the Chaves Soil and Water District program to pool monies for weed control.
- 10. Well pads, roads and related facilities with caliche or other surfacing material will be picked up or turned over at the time of final abandonment. These materials may be used on other projects in the area if possible or placed back in the caliche pit or other designated site. Buried pipelines will be left in place after being bled down and purged. Above surface support equipment will be removed or cut down below plow depth and removed. Pipeline right-of-ways will be reseeded according to BLM Best Management Practices.

#### PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:
LEASE NO.:
NM99034
WELL NAME & NO.:
SURFACE HOLE FOOTAGE:
BOTTOM HOLE FOOTAGE
LOCATION:
COUNTY:
Vates Petroleum Corp
NM99034
10H Juniper BIP Federal
360' FNL & 680' FWL
660' FNL & 330' FEL
Section 4, T. 24 S., R 29 E., NMPM
COUNTY: Eddy County, New Mexico

#### TABLE OF CONTENTS

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 ☐ Permit Expiration ☐ Archaeology, Paleontology, and Historical Sites ☐ Noxious Weeds ☐ Special Requirements
☐ Construction
Notification
V-Door Direction .
Topsoil
Closed Loop System
Federal Mineral Material Pits
Well Pads
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Road Section Diagram
☑ Drilling
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☐ Production (Post Drilling)
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Pipelines
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X  Final Abandonment & Reclamation

#### I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

#### II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60—days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

#### III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

#### IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

#### V. SPECIAL REQUIREMENT(S)

#### VI. CONSTRUCTION

#### A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5972 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

#### B. V-DOOR DIRECTION: not stipulated

#### C. TOPSOIL

The operator shall stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be used for interim and final reclamation.

#### D. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

#### E. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

#### F. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

#### G. ON LEASE ACCESS ROADS

#### Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

#### Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

#### Crowning

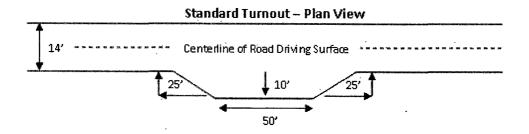
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

#### Ditching

Ditching shall be required on both sides of the road.

#### **Turnouts**

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

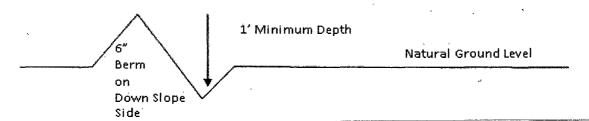


#### Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

#### Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

#### Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

400 foot road with 4% road slope: 
$$\frac{400'}{4\%}$$
 + 100' = 200' lead-off ditch interval

#### **Culvert Installations**

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

#### Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

#### **Fence Requirement**

Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

#### **Public Access**

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

shouldertempet 10° Intervisible turnouts shall be constructed on all single lane roads on all blind curves with additional turnouts as needed to keep spacing below 1000 feet. **Typical Turnout Plan** height of fill at shoulder embonkmeri slope 0' - 4' **Embankment Section** road Crown .03 - .05 h/h anh suface aggregalə surfa: .02 - 04 6/6 02 - .03 8/6 Depth measured from the bottom of the dirch **Side Hill Section Typical Outsloped Section** Typical Inslope Section

Figure 1 - Cross Sections and Plans For Typical Road Sections

#### VII. DRILLING

#### A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 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. Although Hydrogen Sulfide has not been reported in the area, it is always a potential hazard. If Hydrogen Sulfide is encountered, please report measured amounts and formations to the BLM.
- 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 is located, this does not include the dog house or stairway area.
- 4. The record of the drilling rate along with the CAL/GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

#### B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

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 for all casing strings. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Secretary's Potash Medium cave/karst. Possible lost circulation in the Delaware and Bone Spring formations.

- 1. The 13-3/8 inch surface casing shall be set at approximately 400 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt) and cemented to the surface.
  - 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 surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
  - b. Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.
  - 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 cementing will be done prior to drilling out that string.
- 2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing is: The intermediate should be set in the Lamar Limestone.
  - □ Cement to surface. If cement does not circulate see B.1.a, c-d above.
     Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst and potash.

Formation below the 9-5/8" shoe to be tested according to Onshore Order 2.III.B.1.i. Test to be done as a mud equivalency test using the mud weight necessary for the pore pressure of the formation below the shoe (not the mud weight required to prevent dissolving the salt formation) and the mud weight for the bottom of the hole. Report results to BLM office.

Centralizers required on horizontal leg, must be type for horizontal service and minimum of one every other joint.

- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
  - a. First stage to DV tool, cement shall:
    - Cement to circulate. If cement does not circulate, contact the appropriate BLM office, before proceeding with second stage cement job.
  - b. Second stage above first DV tool, cement shall:
    - □ Cement to surface. If cement does not circulate, contact the appropriate
       □ BLM office. Will require additional cement as the excess calculates as
       negative 37%.
- 4. 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. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.
- 3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
  - a. Casing cut-off and BOP installation will not be initiated until the cement has had a minimum of 8 hours setup time for a water basin. The casing shall remain stationary and under pressure for at least eight hours after the operator places the cement. In the potash area, the minimum time is 12 hours and the casing shall remain stationary and under pressure during this time period.

Casing shall be under pressure if the operator uses some acceptable means of holding pressure or if the operator employs one or more float valves to hold the cement in place. Testing the BOP/BOPE against a plug can commence after meeting the above conditions plus the BOP installation time.

- b. The tests shall be done by an independent service company using a test plug.
- c. The results of the test shall be reported to the appropriate BLM office.
- d. 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.
- e. 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.

#### D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

**RGH 042610** 

#### 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

#### B. PIPELINES

#### C. ELECTRIC LINES

#### IX. 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.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation 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 that is free of contaminants 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.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

#### X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared; these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture 1, for Loamy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)\* per acre. There shall be <u>no</u> primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (small/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed\* per acre:

<u>Species</u>	lb/acre
Plains lovegrass (Eragrostis intermedia)	0.5
Sand dropseed (Sporobolus cryptandrus)	1.0
Sideoats grama (Bouteloua curtipendula)	5.0

<sup>\*</sup>Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed