OCD-ARTESIA

SECRETARY'S POTASH

Form 3160-3
(February 2005)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Split Estate

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

5 Lease Serial No. NM-121591 and NM-103879

6 If Indian, Allottee or Tribe Name: N/A

7 If Unit or CA Agreement, Name and No: N/A

1a Type of Work: [X] DRILL [ ] REENTER

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

8 Lease Name and Well No.: **Culebra "BVL" Federal Com #2H**

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

9 API Well No: 30-015-39422

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

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

10. Field and Pool, or Exploratory: Culebra Bluff; B.S. South ~~WC Bone Springs~~

4 Location of well *(Report location clearly and In accordance with any State requirements.*)*
At surface: **1650' FNL & 330' FWL, SWNW Section 7-23S-29E**
At proposed prod zone: **1980' FNL & 2310' FWL, SENW Section 8-23S-29E**

11 Sec , T., R , M., or Blk. And Survey or Area: **Section 7-T23S-R29E & Sec. 8-23S-29E**

14 Distance in miles and direction from the nearest town or post office*: **Four miles east of Loving, New Mexico**

12 County or Parish: **Eddy**

13 State: **NM**

15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drlg. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
330'	240.00	Sec.7, S2N2 & Sec. 8, S2NW4
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft	**19 Proposed Depth**	**20. BLM/ BIA Bond No on file**
1/2 mile	7850 Pilot Hole 7580' TVD 14440' TMD	NATIONWIDE BOND #NMB000434
21. Elevations (Show whether DF, KDB, RT, GL, etc)	**22 Aproximate date work will start***	**23 Estimated duration**
3015' GL	asap	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.
2 A Drilling Plan
3 A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by existing bond on file (see item 20 above)
5. Operator certification.
6. Such other site specific information and/ or plans as may be required by the BLM

RECEIVED
SEP 20 2011
NMOCD ARTESIA

25 Signature	Name *(Printed/ Typed)*	Date
	Cy Cowan	2/24/11

Title: **Land Regulatory Agent**

Approved By *(Signature)*	Name *(Printed/ Typed)*	Date
/s/ Jesse J. Juen		SEP 8 2011
Title STATE DIRECTOR	**Office** NM STATE 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 Unite States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

* *(Instructions on page 2)*

CARLSBAD CONTROLLED WATER BASIN

SEE ATTACHED FOR CONDITIONS OF APPROVAL

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

YATES PETROLEUM CORPORATION
Culebra "BLV" Federal Com #2H
1650' FNL and 330' FWL, 7-23S-29E, Surface Hole Location
1980' FNL & 2310' FWL, 8-23S-29E, Bottom Hole Location
Eddy County, New Mexico

DRILLING INFORMATION

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

			VD	MD
Rustler	185'	Bone Spring	6320'-Oil	
Top of Salt	300'	Avalon Sand	6520'-Oil	
Base of Salt	2500'	First Bone Spring	7450'-Oil	7491'
Bell Canyon	2780'	FSBG Target	7580'	7852
Cherry Canyon	3600 Oil	TD (Pilot Hole)	7580'	
Brushy Canyon	4830'-Oil	TD (Lateral)		14440'
Brushy Canyon Mkr	6100'			

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

   Water: 170'
   Oil or Gas: See above

3. Pressure Control Equipment: 3000 PSI BOPE with a 13.625" opening will be installed on the 13.375" 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 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

See COA

Hole Size	Casing Size	Wt./Ft	Grade	Coupling	Interval	Length
17 1/2"	13 3/8"	48#	J-55	ST&C	0-~~250~~ 235	250'
12 1/4"	9 5/8"	36#	K-55	LT&C	0-~~2600~~ 2700	2600'
8 3/4"	5 1/2"	20#	L-80	LT&C	0-100'	100'
8 3/4"	5 1/2"	17#	HC P- 110	LT&C	100'-7100'	7000'
8 3/4"	5 1/2"	20#	L-80	LT&C	7100'-14440'	7340'

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

Plug to extend to bottom of hole

See COA

Pilot hole drilled vertically to 7850'. Well will be plugged back with a 600' kick off plug at about 6900'-~~7500~~ cemented with 275 sacks Class H (YLD .94 WT 17.5), TOC=6900' designed using 25 % excess. Kick off will be approximately at 7103' and directionally drilled at 12 degrees per 100'with a 8 ¾" to 7900' MD (7580 TVD). If hole conditions dictate, 7" casing will be set as per contingency plan. If 7" is not ~~set~~ set, hole will be reduced to 8 ½" and drilled to 14440'MD (7580' TVD) where 5 ½" casing will be set and cemented. Penetration point pf producing zone will be encountered at 1684' FNL and 806' FWL, 7-23S-29E. Deepest TVD in the well is 7580' in the pilot hole. Deepest TVD in the lateral is 7580'. An isolation plug on the bottom of the pilot hole is not warranted due to the fact that there is no formation change between kick off plug and the bottom hole.

B. CEMENTING PROGRAM:

Surface Casing: 275 sacks C +2% CaCl2 (Wt 14.80 Yld 1.34) +2% CaCL2.. TOC surface designed with 100% excess.

Intermediate Casing: Lead with 700 sacks of C Lite w/ 2% CaCL2 (Wt 12.60 Yld 2.0). Tail in with 200 sacks C (Wt 14.80 Yld 1.34). TOC surface designed using 100% excess.

Production Casing: Cement will be done in 3 stages with DV tools at 5300' & 4000'. Designed with 100% excess.
Stage One: 3100 sacks Pecos Valley Lite (Wt 13.00 Yld 1.83). TOC. 5300'.
Stage Two: 475 sacks Pecos Valley Lite (Wt 13.00 Yld 1.41).TOC 4000'
Stage Three: Lead 3000 sacks of LiteCrete (Wt 9.90 Yld 2.66). Tail in 100 sacks of Pecos Valley Lite (Wt 13.0 Yld 1.41). TOC 2100' designed with 100% excess.

6. MUD PROGRAM AND AUXILIARY EQUIPMENT:

Interval	Type	Weight	Viscosity	Fluid Loss
0-250' 255	Fresh Water	8.60-9.20	35-40	N/C
250'-2600' 2700	Brine Water	10.00-10.20	28-28	N/C
2600'-7850'	Cut Brine	8.70-9.20	28-29	N/C
77103'-14440'	Cut Brine(Lateral Section)	9.00-9.20	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;
Coring: None anticipated
DST's: None Anticipate
Mudlogging: Yes: From surface casing to TD.

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

0'-250'	120 PSI
250'-600'	1379 PSI
2600'-7850'	3755 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 65 days to drill the well with completion taking another 30 days.

Contingency Casing Design

If hole conditions dictate, 7" casing will be set at 7,900' . A 6 1/8" hole will then be drilled to 14,440' MD (7,580' TVD) where 4 1/2" casing will be set and cemented with one stage up to dv tool. After completion procedures, the 4 1/2" casing will be cut and pulled at 7000'

2nd Intermediate

0 ft to 100 ft				Make up Torque ft-lbs			Total ft = 100
O.D	Weight	Grade	Threads	opt.	min.	mx	
7 inches	26 #/ft	J-55	LT&C	3670	2750	4590	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
4,320 psi	4,980 psi	367,000 #		415,000 #		6.151	

100 ft to 5,800 ft				Make up Torque ft-lbs			Total ft = 5,700
O.D.	Weight	Grade	Threads	opt.	min.	mx.	
7 inches	23 #/ft	J-55	LT&C	3130	2350	3910	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
3,270	4,360 psi	313,000 #		366,000 #		6.25	

5,800 ft to 7,900 ft				Make up Torque ft-lbs			Total ft = 2,100
O.D	Weight	Grade	Threads	opt.	min.	mx.	
7 inches	26 #/ft	J-55	LT&C	3670	2750	4590	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
4,320 psi	4,980 psi	367,000 #		415,000 #		6.151	

DV tool placed at 4000'.
Stage I 7900'-4000 Cemented w/835sx PVL (YLD 1.41 Wt 13) TOC= 4000'
Stage II. 4000'-2100 Cemented w/175sx Lite Crete (YLD 2 66 Wt 9.9), tail w/100sx PVL (YLD 1.41 Wt 13) TOC= 2100'

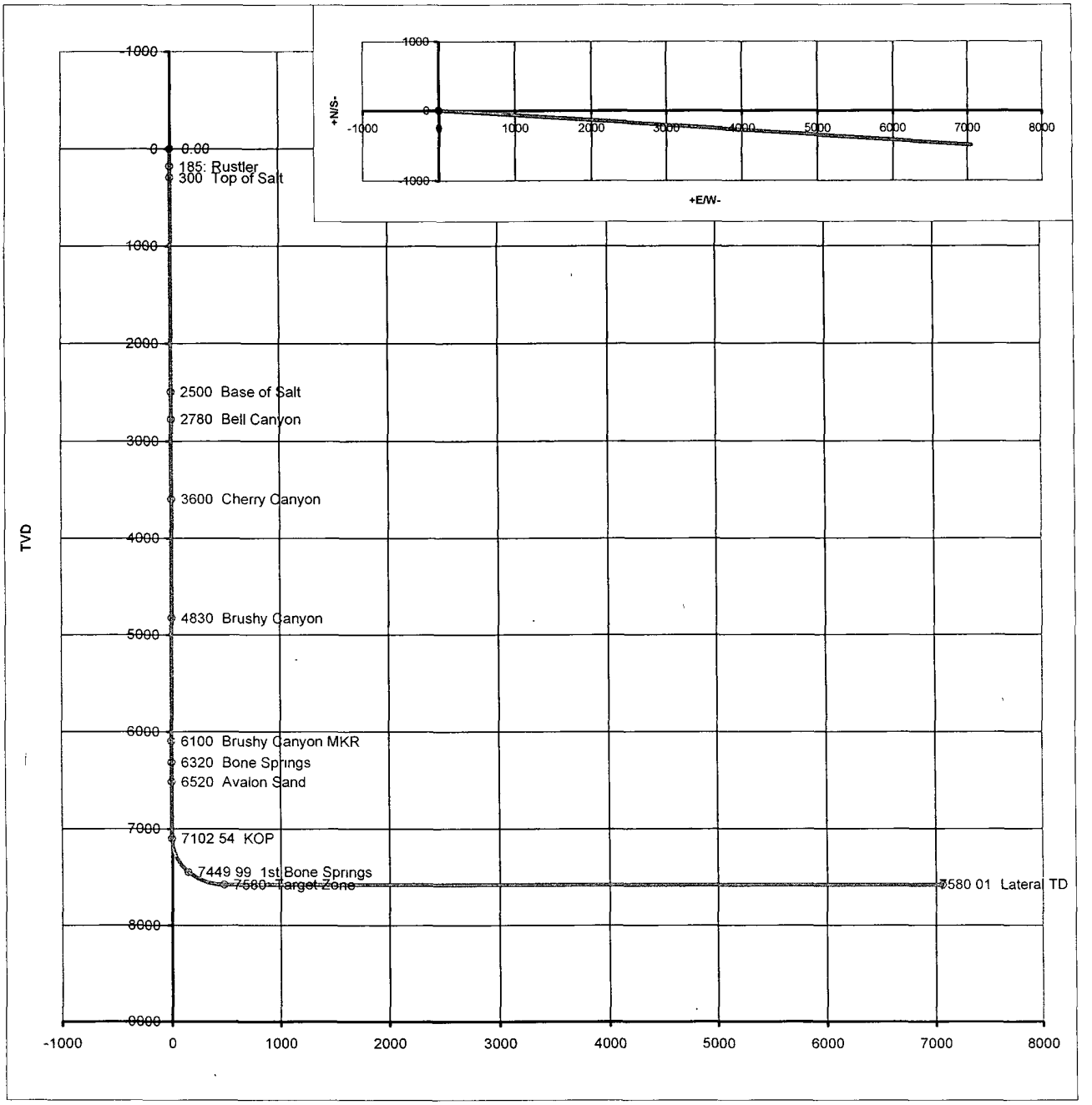
Production

0 ft to 14,440 ft				Make up Torque ft-lbs			Total ft = 14,440
O.D	Weight	Grade	Threads	opt.	min.	mx.	
4.5 inches	11.6 #/ft	HCP-110	LT&C	3020	2270	3780	
Collapse Resistance	Internal Yield	Joint Strength		Body Yield		Drift	
8,650 psi	10,690 psi	279,000 #		367,000 #		3.875	

DV tool placed at approx. 7000' and cemented with one stage up to dv tool. After completion procedures, the 4 1/2" casing will be cut and pulled at 7000'
Cemented w/1025sx PVL (YLD 1 41 Wt 13) TOC= 7000'

Co: Yates Petroleum	**Units:** Feet, °, 100ft	**VS Az:** 94.03	**Tgt TVD:** 7580.00
Drillers: 0	**Elevation:**	**Tgt Radius:** 0.00	**Tgt MD:** 0.00
Well Name: Culebra BLV Federal Com. #2H	**Northing:**	**Tgt N/S:** -497.00	**Tgt Displ.:** 0.00
Location: 0	**Easting:**	**Tgt E/W:** 7047.00	**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	185.00	185.00	0.00	0.00	185.00	0.00	0.00	0.00	0.00	0.00	0.00	Rustler
2	300.00	115.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	Top of Salt
3	2500.00	2200.00	0.00	0.00	2500.00	0.00	0.00	0.00	0.00	0.00	0.00	Base of Salt
4	2780.00	280.00	0.00	0.00	2780.00	0.00	0.00	0.00	0.00	0.00	0.00	Bell Canyon
5	3600.00	820.00	0.00	0.00	3600.00	0.00	0.00	0.00	0.00	0.00	0.00	Cherry Canyon
6	4830.00	1230.00	0.00	0.00	4830.00	0.00	0.00	0.00	0.00	0.00	0.00	Brushy Canyon
7	6100.00	1270.00	0.00	0.00	6100.00	0.00	0.01	0.00	0.00	0.00	0.00	Brushy Canyon MKR
8	6320.00	220.00	0.00	0.00	6320.00	0.00	0.01	0.00	0.00	0.00	0.00	Bone Springs
9	6520.00	200.00	0.00	0.00	6520.00	0.00	0.01	0.00	0.00	0.00	0.00	Avalon Sand
10	7102.54	7102.54	0.00	94.03	7102.54	0.00	0.01	0.00	0.00	1.32	0.00	KOP
11	7200.00	97.46	11.70	94.03	7199.32	9.91	-0.69	9.89	12.00	0.00	12.00	
12	7300.00	100.00	23.70	94.03	7294.42	40.25	-2.83	40.15	12.00	0.00	12.00	
13	7400.00	100.00	35.70	94.03	7381.13	89.70	-6.30	89.48	12.00	0.00	12.00	
14	7491.66	91.66	46.70	94.03	7449.99	149.98	-10.55	149.61	12.00	0.00	12.00	1st Bone Springs
15	7500.00	100.00	47.70	94.03	7455.66	156.10	-10.98	155.71	12.00	0.00	12.00	
16	7600.00	100.00	59.70	94.03	7514.76	236.54	-16.63	235.95	12.00	0.00	12.00	
17	7700.00	100.00	71.70	94.03	7555.84	327.51	-23.03	326.70	12.00	0.00	12.00	
18	7800.00	100.00	83.70	94.03	7577.11	425.03	-29.90	423.98	12.00	0.00	12.00	
19	7852.53	750.00	90.00	94.03	7580.00	477.46	-33.58	476.28	12.00	0.00	12.00	Target Zone
20	14439.58	6587.04	90.00	94.03	7580.01	7064.50	-497.00	7047.00	0.00	0.00	0.00	Lateral TD

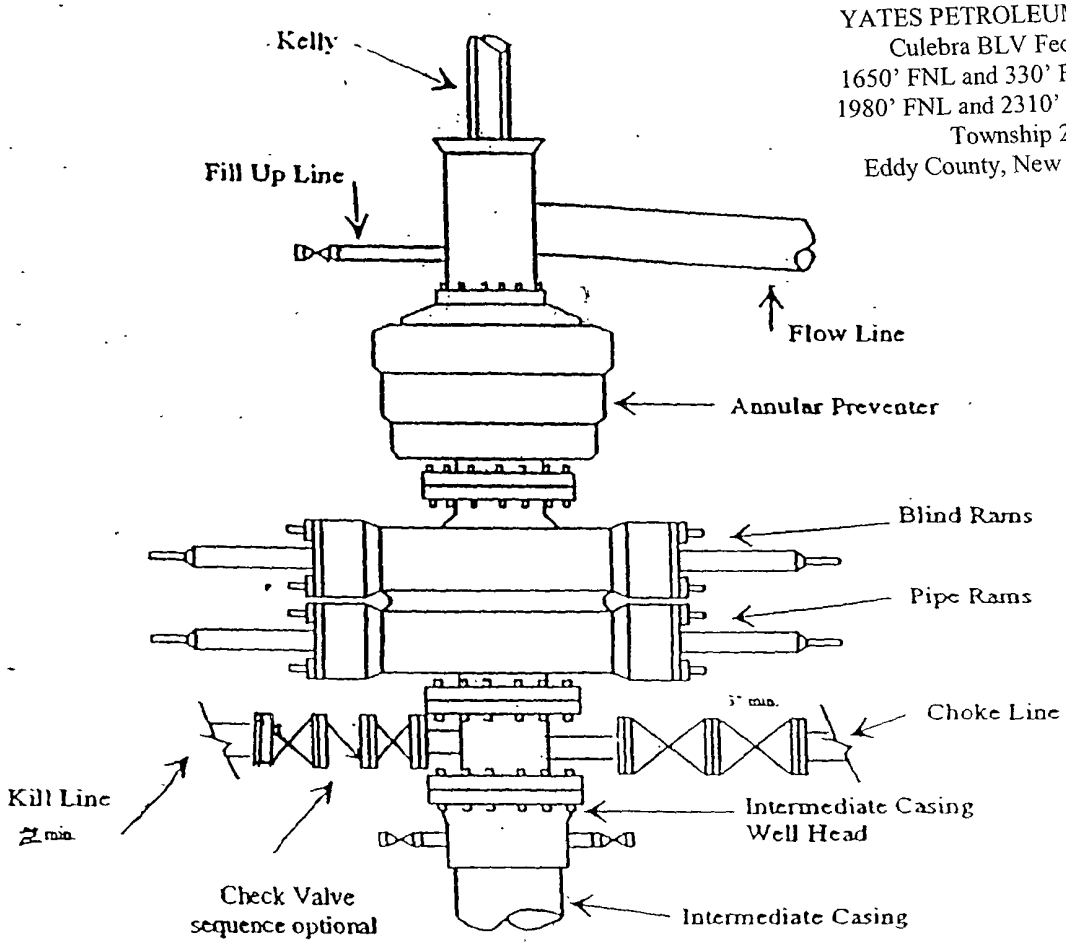

+N/S-
+E/W-
TVD
0.00
185: Rustler
300 Top of Salt
2500 Base of Salt
2780 Bell Canyon
3600 Cherry Canyon
4830 Brushy Canyon
6100 Brushy Canyon MKR
6320 Bone Springs
6520 Avalon Sand
7102 54 KOP
7449 99 1st Bone Springs
7580 Target Zone
7580 01 Lateral TD

Yates Petroleum Corporation

BOP-3

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

YATES PETROLEUM CORPORATION
Culebra BLV Federal Com. #2H
1650' FNL and 330' FWL Section 7 SHL
1980' FNL and 2310' FWL Section 8 BHL
Township 23S–R29E
Eddy County, New Mexico· Exhibit C



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