	0	CD-ARTESIA	-		
Form 3160-3 (August 1999)	UNITED STATES				
DEPARTMENT OF T	DEPARTMENT OF THE INTERIOR BUREAU OF LAND MANAGEMENT				
APPLICATION FOR PERMIT		ENTER	6. If Indian, Allottee or Trib	e Name	
1a. Type of Work: DRILL REENTER R-1 11-POTASH	CONFID	ENTIAL	7. If Unit or CA Agreement	, Name and No.	
1b. Type of Well: Oil Well 🛛 Gas Well 🖸 Oth		le Zone 🔲 Multiple Zone	8. Lease Name and Well No BARCLAY FEDERAL 3		
	ANNA WALLS E-Mail: AVWalls@foresto	il.com	9. API Well No. 30-015-3	5656	
3a. Address 1600 BROADWAY SUITE 2200 DENVER, CO 80202	3b. Phone No. (includ Ph: 303.812.1400 Fx: 303.812.1602	Livineste	10. Field and Pool, or Explo	Lave Sourt	
4. Location of Well (Report location clearly and in accorded	ince with any State requ	irements.*)	11. Sec., P., J., M., or Blk.	and Survey or Area	
At surface NWSW 2180FSL 860FWL At proposed prod. zone		RECEIVED	Sec 12 T23S R31E SME: BLM	Mer NMP	
14. Distance in miles and direction from nearest town or post 30 MILES SOUTHEAST OF CARLSBAD, NEW	MEXICO	OCT 0 5 2004	12. County or Parish EDDY	13. State NM	
<ol> <li>Distance from proposed location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)</li> <li>860' - LEASE</li> </ol>	16. No. of Acres in Le 1280.00	AND CONTRACTOR INC.	17. Spacing Unit dedicated 80.00	to this well	
<ol> <li>Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft.</li> <li>1,100' - BARCLAY FEDERAL #7</li> </ol>	19. Proposed Depth 8400 MD		20. BLM/BIA Bond No. on	file	
21. Elevations (Show whether DF, KB, RT, GL, etc. 3495 GL	22. Approximate date 09/24/2004	work will start	23. Estimated duration 45-60 DAYS		
	24. Atta	achments CARLS	BAD CONTROLLED W	ATER BASIN	
The following, completed in accordance with the requirements of	f Onshore Oil and Gas C	order No. 1, shall be attached to	this form:		
<ol> <li>Well plat certified by a registered surveyor.</li> <li>A Drilling Plan.</li> <li>A Surface Use Plan (if the location is on National Forest Syst SUPO shall be filed with the appropriate Forest Service Of</li> </ol>		<ol> <li>Bond to cover the operation Item 20 above).</li> <li>Operator certification</li> <li>Such other site specific infauthorized officer.</li> </ol>			
25. Signature (Electronic Submission)	Name (Printed/Typed) KATHY L. SCH	NEEBECK Ph: 303.820.	4480	Date 08/25/2004	
Title AGENT					
Approved by (Signature) /S/ Linda S. C. Rundell Title	Name (Printed/Typed)	/s/ Linda S. C.	Rundell	Date 29 Sep 2004	
STATE DIRECTOR	N	M STATE OFFICE			
Application approval does not warrant or certify the applicant he operations thereon. Conditions of approval, if any, are attached.	ids legal or equitable titl		val FOR 1 YEA	-	
Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, States any false, fictitious or fraudulent statements or representation			o make to any department or a	gency of the United	
Additional Operator Remarks (see next page)					
Electronic Submiss For FOR APPROVAL SUBJEONTINE to AFMSS for	PAT AU AABBAB	d by the BLM Well Inforn TION, sent to the Caris NDA ASKWIG on 08/25/2			
GENERAL REOUIREMENTS	- Presenting by El		itness Surface &		

GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

1

.

Witness Surface & Intermediate Casing

\*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\* BLM REVISED \*\*

#### **Additional Operator Remarks:**

Please find attached in two Adobe files: 1) Cover Letter, New Mexico APD form, New Mexico Pit Permit Form, Drilling Program, Casing Design, BOP Diagram, Surface Use Plan, Table 1 Nearby Wells 2) Survey Plat, Offset Plat, Drill Pad Dimensions Plat, Location Verification Map, Vicinity Map, and

Area Map.

Per BLM in Carlsbad, a Cultural Resources block study was conducted and no further arch work is required for this location.

Please send a copy of all correspondence to Banko Petroleum Management Inc. at 385 Inverness Parkway, Suite 420, Englewood, CO 80112-5849. Please contact David Banko or Kathy Schneebeck at 303-820-4480, or at david@banko1.com or kathys@banko1.com, respectively, if you have any questions. Thank you.

1625 N. French Dr., Hobbs, NM 88240 <u>District II</u> 1301 W. Grand Avenue, Artesia, NM 88210	Energy M	inerals and Natural Resources	Form C-144 June 1, 2004			
District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV	1220	South St. Francis Dr. Fo	For drilling and production facilities, submit t appropriate NMOCD District Office. For downstream facilities, submit to Santa Fe			
1220 S. St. Francis Dr., Santa Fe, NM 87505	ancis Dr., Santa Fe, NM 87505 Santa Fe, NM 87505 off					
Pit or E	Below-Gra	de Tank Registration or Clo	osure			
Is pit or be Type of action: Regi	low-grade tar stration of a pit	k covered by a "general plan"? Yes 🔀 or below-grade tank 🛛 Closure of a pit or below	No 🗌 v-grade tank 🔲			
Operator:Forest Oil Corporation	Telep	hone: <u>303-812-1400</u> e-mail addre	2SS:			
Address:1600 Broadway, Suite 2200, Denver, CO						
Facility or well name: <u>Barclay Federal #33</u>						
County: <u>Eddy</u> Latitude <u>32° 19' 03.26"N</u> Long	gitude <u>103° 4</u>	4' 12.30" W NAD: 1927 🔲 1983 🛛 Surface	e Owner Federal 🛛 State 🗌 Private 🗋 Indian 🗍			
Pit		Below-grade tank				
Type: Drilling Production Disposal		Volume:bbl Type of fluid:				
Workover Emergency		Construction material:				
Lined 🖾 Unlined 🗌	-	Double-walled, with leak detection? Yes	If not, explain why not.			
Liner type: Synthetic 🛛 Thickness <u>12</u> mil Clay	]					
Pit Volume <u>±12,000</u> bbl						
Depth to ground water (vertical distance from bottom of p	oit to seasonal	Less than 50 feet 50 feet or more, but less than 100 feet	(20 points)			
high water elevation of ground water.)		100 feet or more	(10 points)			
Wellhead protection area: (Less than 200 feet from a priv	ate domestic	Yes	(20 points)			
water source, or less than 1000 feet from all other water s	ources.)	No	( <u>0 points</u> ) RECEIVED			
Distance to surface water: (horizontal distance to all weth		Less than 200 feet	(20 points) SEP 1 3 2004			
irrigation canals, ditches, and perennial and ephemeral wa		200 feet or more, but less than 1000 feet				
		1000 feet or more	( 0 points)			
		Ranking Score (Total Points)	0 points			
this is a pit closure: (1) attach a diagram of the facility	showing the pit'	s relationship to other equipment and tanks. (2) I	ndicate disposal location: (check the onsite box if			
our are burying in place) onsite 🗌 offsite 🔲 If offsite, r		• • • • • • • • • • • • • • • • • • • •	•			
mediation start date and end date. (4) Groundwater enco						
ttach soil sample results and a diagram of sample location			()			
Additional Comments:			······································			
Additional Comments.						
		······································				
I hereby certify that the information above is true and cor has been/will be constructed or closed according to N! Date: 09/08/04	nplete to the bes MOCD guidelin	t of my knowledge and belief. I further certify t es 🛛, a general permit 🗌, or an (attached) all	that the above-described pit or below-grade tank ternative OCD-approved plan .			
Printed Name/Title Kathy L. Schneebeck		Signature Kuchy & Schmer bein	Ł			
Your certification and NMOCD approval of this application otherwise endanger public health or the environment. Not	ion/closure does or does it relieve	not relieve the operator of liability should the cor	ntents of the pit or tank contaminate ground water or			
regulations.						

DISTRICT I P.O. Box 1980, Hobbs, NM 88241-1980 DISTRICT II P.O. Drawer BD, Artenia, NM 88211-0719 DISTRICT III 1000 Bio Brazos Rd., Axtec, NM 87410 DISTRICT IV			OIL CONSERVATION DIVISION P.O. Box 2088 Santa Fe, New Mexico 87504-2088					Form C-10 Revised February 10, 1994 to Appropriate District Office State Lease - 4 Copier Fee Lease - 3 Copier	
P.O. BOX 2058, SANT	A PE, N.M. 87 Number	504-2088		Pool Code	AND ACREA	GE DEDICATI	Pool Name	AMEND	ED REPO
			<u>, 9</u>	6149	1	ivingston Ri	dge (Delawaı	re)	
Property (	lode			n	Property Nam			Well Nun	
20761				D.	Operator Nam	· · · · · · · · · · · · · · · · · · ·	<u></u>	33 Elevation	
8041				FORES	ST OIL COR			349	
	4 4				Surface Loc	ation			
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	12	23–S	31-E		2180'	SOUTH	860''	WEST	EDDY
			Bottom	Hole Lo	cation If Diffe	rent From Sur	face		
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acre	a l Toint a	or Infill Co	maplication	Cada   Or	der No.			L	L.,
40	s jour c		MSDIGSLION	Lode UT	uer no.				
					   		I hereb contained herei best of my know	)R CERTIFICAT y cortify the the in n is true and compl wiedge and between Schmeiberge	formation
	       					· ·	Kathy L. Printed Nam Agent for Title August 2 Date	Schneebeck Forest 011	L Corp
3496.7' 	3499 500'   -0 81   	a. C	Y=4797	7 NME 760.7 N 298.5 E			on this plat we actual surveys supervison, as correct to th	that the well locat as plotted from field made by we or a that the same is o best of my belie AY 3, 2004	l notes of under m true an
	<u> </u>		DNG.=103				Date Surveye Signature & Professional	Seal of Change	JR

1. **•** 

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

SEC. <u>12</u> TWP. <u>23–S</u> RGE. <u>31–E</u> SURVEY <u>N.M.P.M.</u> COUNTY <u>EDDY</u> DESCRIPTION <u>2180' FSL & 860' FWL</u> ELEVATION <u>3495'</u> FOREST OIL OPERATOR <u>CORPORATION</u> LEASE <u>BARCLAY FEDERAL</u> U.S.G.S. TOPOGRAPHIC MAP BOOTLEG RIDGE, N.M. CONTOUR INTERVAL: BOOTLEG RIDGE, N.M. - 10'



VICINITY MAP



SEC. <u>12</u> 1	WP. <u>23-S</u> RGE. <u>31-E</u>
SURVEY	N.M.P.M.
COUNTY	EDDY
DESCRIPTION	1 2180' FSL & 860' FWL
ELEVATION_	3495'
OPERATOR_	FOREST OIL CORPORATION
LEASE	BARCLAY FEDERAL



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Forest Oil Corporation Barclay Federal 33 2,180' FSL 860' FWL (NW/4 SW/4) Sec. 12 T23S R31E Eddy County, New Mexico Federal Lease: NM022080

# **DRILL PAD DIMENSIONS**





Via Electronic Submission #35051

Ms. Leslie Theiss Bureau of Land Management Carlsbad Field Office Bureau of Land Management 620 E. Greene Street Carlsbad, NM 88220

RE: Application for Permit to Drill - CONFIDENTIAL Electronic Submission #35051 Forest Oil Corporation Barclay Federal 33 2,180' FSL 860' FWL (NW/4 SW/4) Sec. 12 T23S R31E Eddy County, New Mexico Federal Lease: NM022080

Dear Ms. Theiss:

Enclosed please find originals of the Application for Permit to Drill (APD) for the above-referenced well filed on behalf of Forest Oil Corporation (Forest). Originals were submitted under separate cover to the State of New Mexico, Energy, Mineral & Natural Resources Department, Oil Conservation Division (NMOCD) in Artesia, New Mexico.

Forest respectfully requests that all information regarding this well be kept confidential.

An APD for the nearby Barclay Federal 7 oil well location was applied for by ARCO Permian at a location of 1,980' FSL 1,980' FWL (NE/4 SW/4) Sec. 12 T23S R31E. The well was given API #30-015-29785 by NMOCD. We were unable, however, to determine the current status for this well from the information obtained from the NMOCD website. We understand that Forest has been declared the designated operator for this location.

An on-site meeting was held on June 17, 2004. Present were Barry Hunt (previously inspected 06/08/04) – Bureau of Land Management; Mike Cason and Brian Baiz – John West Surveying Company; Jerry Boswell, Roy Muniz – Forest Oil Corporation; Paul Carrasco – Key Energy (dirt contractor) and Dave Banko – Permit Agent, Banko Petroleum.

385 Inverness Parkway, Suite 420 - Englewood, CO 801124-5849 • USA • 303-820-4480 • Fax 303-820-4124 E-mail: david@banko1.com • Home site: www.banko1.com

August 24, 2004

Ms. Leslie Theiss August 24, 2004 Page 2

We are sending this APD electronically to your office via the Well Information System (WIS). This filing contains the following attachments: the drilling program, the surface use plan, the On-shore Order #2 casing calculations, BOP diagram, the wells within a one-mile radius, survey plats, cross-sections, cut and fills, and area road/access maps.

Your early attention to this application is greatly appreciated. Thank you for your concern.

Very truly yours,

/S/ Kathy L. Schneebeck

Kathy L. Schneebeck Agent for Forest Oil Corporation

KLS:tpk

#### Enclosures

cc: State of New Mexico, Energy, Mineral & Natural Resources Department, Oil Conservation Division Forest Oil Corporation District I 1625 N. French Dr., Hobbs, NM 88240 District II 811 South First, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 13004

## State of New Mexico Energy Minerals and Natural Resources

Form C-101 Revised March 17, 1999

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 13004 Submit to appropriate District Office State Lease - 6 Copies Fee Lease - 5 Copies

AMENDED REPORT

APPLI	CATIC	N FOR	PERMIT T	O DR	ILL,	RE-ENTE	R, DE	EPEN,	PLUGBAC	ск, с	DR ADD	AZONE	
<sup>1</sup> Operator Name and Address Forest Oil Corporation 1670 Broadway, Suite 2800, Denver, CO 80202									ID Number 8041				
			<b>.</b>						1	'AP	I Number		
<sup>1</sup> Propert	y Code 0761					roperty Name clay Federal					<sup>6</sup> Well 33	No,	
						face Locat	on	<u></u>		I			
UL or lot no.	Section	Township	Range	Lot le		Fect from the		outh line	Feet from the	Ea	st/West line	County	
L	12	23-S	31-E			2,180'	Sc	outh	860'		West	Eddy	
	<u> </u>	8	Proposed Bo	ottom I	Iole 1	Location If	Differe	nt Fror	n Surface			• · · · · · · · · · · · · · · · · · · ·	
UL or lot no.	Section	Township	Range	Lot l		Feet from the		South line	Feet from the	Ba	st/West line	County	
	J		roposed Pool 1	I.,				4	10 Prop	osed Po	ol 2	4	
	Livin	gston Ridg	e South (Delay	vare) 961	149								
	Type Code N		<sup>12</sup> Well Type Code	:		<sup>11</sup> Cable/Rotar	,	,  ,	Lease Type Code S	<sup>13</sup> Ground Level Elevati 3 495' CP		nd Level Elevation ,495' GR	
<sup>16</sup> M	ultiple NO		<sup>17</sup> Proposed Depth 8,400'	<b>)</b> .		<sup>18</sup> Formation Delaware			<sup>18</sup> Contractor		2	<sup>o</sup> Spud Date mber 24, 2004	
L			<sup>21</sup> P	ropose	d Cas	ing and Ce	ment P	rogram				·	
Hole S	ize	Ças	ng Size		weight		Setting D		Sacks of (	Cement		Estimated TOC	
17-1/2	2"	13	-3/8"	K-55	54.5#1	Butt	900'		±470 sxs 3	±470 sxs 35:65 "C"		Surface	
							±200 sxs		±200 sxs C	lass "C			
12-1/4	<b>4"</b>	8	5/8"	K-55	24# LT	&C			±1,040 5xs :	50:50 P	oz	Surface	
									±200 sxs C		<u>, , , , , , , , , , , , , , , , , , , </u>		
· 7-7/8	91 	5	·1/2"	N-80	17# LI	&C	8,400' ±240 sxs 35:65 Sup ±375 sxs Class "H"			Surface			
<sup>22</sup> Describe the	e proposed p	orogram. If th	is application is to	DEEPEN	i or PLU	JG BACK, give	the data of	1 the prese	nt productive zone	e and pr	oposed new	productive zone.	
Describe the bl	owout prev	ention program	n, if any. Use add	litional sh	eets if n	ecessary,							
See attached	l drilling	program ar	d surface use	plan									
FOREST F		<b>FFULLY</b> ]	REQUESTS	FHAT A	ALL I	NFORMAT	ION RE	GARD	ING THIS W	ELL	BE KEPI	Г ,	
<sup>23</sup> I hereby certify that the information given above is true and complete to the best OIL CONSERVATION DIVISION							ON						
of my knowledge and behief.													
Signature: Kachy & Schmulich													
						Арг	roved by:		$\langle \circ \circ \rangle$	Đ,	BGN		
Printed name:						Ťitle	:		<u> </u>				
Title: Agent	for Fores	t Oil Corpo	oration			Арг	roval Date	:		Expira	tion Date:		
Date: August	1 24, 2004		Phone: 303-	820-448	0	Con	ditions of A	Approval:					
					Attz	Attached							

District I 1625 N. French Dr., Hobbs, NM 88240 District II 1301 W. Grand Avenue, Artesia, NM 88210 District III 1000 Rio Brazos Road, Aztec, NM 87410 District IV 1220 S. St. Francis Dr., Santa Fe, NM 87505

## State of New Mexico **Energy Minerals and Natural Resources**

**Oil Conservation Division** 1220 South St. Francis Dr. Santa Fe, NM 87505

For drilling and production facilities, submit to appropriate NMOCD District Office. For downstream facilities, submit to Santa Fe office

# Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes 🛛 No 🗌 of action: Registration of a pit or below-grade tank 🖾 Closure of a pit or below-grade tank

Operator: Forest Oil Corporation Teleph	none: <u>303-812-1400</u> e-mail address:	Anne - Marine Malanaman ann an Anna
Address: 1600 Broadway, Suite 2200, Denver, CO 80202		
Facility or well name:Barclay Federal #33A	PI#: U/L or Qtr/Qtr NWSW	Sec 12 T 23S R 31E
County: Eddy Latitude 32° 19' 03.26"N Longitude 103° 44		
Pit	Below-grade tank	
Type: Drilling 🛛 Production 🗆 Disposal 🗖	Volume:bbl Type of fluid:	
Workover 🔲 Emergency 🔲	Construction material:	
Lined 🛛 Unlined 🗌	Double-walled, with leak detection? Yes [] If no	t, explain why not.
Liner type: Synthetic 🛛 Thickness <12 mil Clay 🗌		· · · · · · · · · · · · · · · · · · ·
Pit Volume <u>±12,000</u> bbl		
	Less than 50 feet	(20 points)
Depth to ground water (vertical distance from bottom of pit to seasonal	50 feet or more, but less than 100 feet	(10 points)
high water elevation of ground water.)	100 feet or more	( 0 points)
	Yes	(20 points)
Wellhead protection area: (Less than 200 feet from a private domestic	No	(0 points)
water source, or less than 1000 feet from all other water sources.)	· · · · · · · · · · · · · · · · · · ·	
Distance to surface water: (horizontal distance to all wetlands, playas,	Less than 200 feet	(20 points)
irrigation canals, ditches, and perennial and ephemeral watercourses.)	200 feet or more, but less than 1000 feet	(10 points)
Tigaton canal, atonos, and persinter and opication water courses,	1000 feet or more	( 0 points)
	Ranking Score (Total Points)	0 points
If this is a pit closure: (1) attach a diagram of the facility showing the pit's	relationship to other equipment and tanks (2) Indice	te disposal location: (check the onsite box if
your are burying in place) onsite  of offsite  If offsite, name of facility	•	lescription of remedial action taken including
your are ourying in place, onsite offsite if offsite, italie of facting	. (5) Attacit a general (	reactivition of temeorial action meen menuning

remediation start date and end date. (4) Groundwater encountered: No 🗌 Yes 🗌 If yes, show depth below ground surface\_\_\_\_\_ ft. and attach sample results. (5)

Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines 🖾, a general permit 🗔, or an (attached) alternative OCD-approved plan 🗔. Date: 08/24/04

Printed Name/Title Kathy L. Schneebeck

Signature Tarty & Schneebeck

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

Approval:

Printed Name/Title\_

Signature

Date:

Forest Oil Corporation Barclay Federal 33 2,180' FSL 860' FWL (NW/4 SW/4) Sec. 12 T23S R31E Eddy County, New Mexico Federal Lease: NM022080

## CONFIDENTIAL

#### DRILLING PROGRAM

This Application for Permit to Drill (APD) is filed under the Notice of Staking (NOS) process as stated in Onshore Order No. 1 and supporting Bureau of Land Management (BLM) documents. This NOS process included on-site meetings on June 17, 2004, prior to the submittal of the application, at which time the specific concerns of Forest Oil Corporation (Forest) and the BLM were discussed. All specific concerns of the BLM representatives are addressed herein, as are specific stipulations from the BLM.

# FOREST RESPECTFULLY REQUESTS THAT ALL INFORMATION REGARDING THIS WELL BE KEPT CONFIDENTIAL.

#### SURFACE FORMATION - Rustler

#### GROUND ELEVATION - 3,495'

## ESTIMATED FORMATION TOPS - (Water, oil, gas and/or other mineral-bearing formations)

Rustler	771'	Sandstone, shales & siltstones
Castile Anhydrite/Salt	1,175'	Sandstone, shales & siltstones
Delaware – Lamar Sh	4,489'	Shales & siltstones
Delaware – Bell Canyon	4,517'	Sandstone, shales & siltstones
Delaware – Cherry Canyon	5,429'	Sandstone, shales & siltstones
Delaware Brushy Canyon	7,067'	Sandstone, shales & siltstones
Delaware – L. Brushy Canyon	8,131'	Sandstone, shales & siltstones

#### TOTAL DEPTH

## 8,400'

#### CASING PROGRAM

Depth	Hole Diameter	Casing Diameter	Casing Weight and Grade	Cement	
0' - 900'	17-1/2"	13-3/8"	K-55 54.5# Butt	To surface (Lead: ±470 sxs 35:65 Class "C" Tail: ±200 sxs Class "C" with additives)	WITNESS
0' - 4,500'	12-1/4"	8-5/8"	K-55 24# ST&C New	To surface (Lead: ±1,040 sxs 50:50 Poz; Tail: ±200 sxs Class C with additives) **	
0' - 8,400'	7-7/8"	5-1/2"	N-80 17# LT&C New	To surface (±240 sxs 35:65 Class "C"; Tail: ±375 sxs Class "H" with additives) **	

\* Surface casing cement volume to be based on 100% excess calculations.

\*\* Production casing cement volumes will be determined by caliper log plus 20% excess calculations.

Yields	Surface:	Lead: 35:65 Class "C" yield = $1.89 \text{ ft}^3/\text{sx}$
		Tail: Class "C" yield = 1.34 ft <sup>3</sup> /sx
	Intermediate:	Lead: 50:50 yield = $2.45 \text{ ft}^3/\text{sx}$
		Tail: Class "C" yield = $1.34 \text{ ft}^3/\text{sx}$
	Production:	Lead: 35:65 Class "C" yield = $1.92 \text{ ft}^3/\text{sx}$
		Tail: Class "H"= $1.79 \text{ ft}^3/\text{sx}$

Surface casing top 100' will use 1" tubing, with Class "G" cement with 3% CaCl<sub>2</sub> prior to nippling up BOP.

Production casing will be cemented from total depth back to surface.

## PRESSURE CONTROL

See attached blowout preventer diagram.

BOP's and choke manifold will be installed and pressure tested before drilling out of surface casing (subsequent pressure test will be performed whenever pressure seals are broken), and then will be checked daily as to mechanical operating condition. BOP's will be pressure tested at least once every 30 days. Ram type preventers and related pressure control equipment will be pressure tested to related working pressure of the stack assembly if a test plug is used. If a plug is not used, the stack assembly will be tested to the rated working pressure of the stack assembly or 70% of the minimum internal yield of the casing, whichever is less. Annular type preventers will be pressure tested to 50% of their working pressure. All casing strings will be pressure tested to 0.22 psi/ft or 1,500 psi, whichever is greater, not to exceed 70% of the internal yield. The casing shoe will be tested by drilling 5-20' out from under the shoe and pressure tested to a maximum expected mud weight equivalent as shown in the mud program listed below.

A manual locking device (i.e. hand wheels) or automatic locking devices shall be installed on the BOP stack. Remote controls capable of both opening and closing all preventers shall be readily accessible to the driller.

The choke manifold and accumulator will meet or exceed NMOCD standards. The BOP equipment will be tested after any repairs to the equipment. Pipe rams, blind rams and annular preventor will be activated on each trip and weekly BOP drills will be conducted with each crew. All tests, maintenance, and BOP drills will be documented on rig "tower sheets".

## Statement of Accumulator System and Location of Hydraulic Controls

The drilling rig has not been selected for this well. Selection will take place after approval of this application is granted. Manual and/or hydraulic controls will be in compliance with NMOCD for 5,000 psi system.

A remote accumulator will be used. Pressures, capacities, location of remote hydraulic and manual controls will be identified at the time of the NMOCD supervised BOP test.

#### MUD PROGRAM

0' - 900' Fresh water w/ sweeps MW: 8.5 ppg 900' - 4,500' Brine MW: 10 ppg 4,500' - TD Fresh water polymer MW: 8.6 ppg – 9.0 ppg Visc: 35 sec WL: 20 cc or less

Sufficient mud materials to maintain mud properties, control lost circulation and to contain a "kick" will be available on location.

## AUXILIARY EQUIPMENT

- A. Upper Kelly cock; lower Kelly cock will be installed while drilling.
- B. Inside BOP or stabbing valve with handle (available on rig floor).
- C. Safety valve(s) and subs to fit all string connections in use
- D. Electronic/mechanical mud monitoring will utilize a Pason Unit with a minimum: pit volume totalizer (PVT); stroke counter; flow sensor.

## LOGGING, CORING TESTING PROGRAM

- A. Logging: DIL-GR-SP-CAL: TD 4,400'
  - ND-GR-CAL: TD 4,400'
- B. Coring: None planned
- C. Testing: No DST's are anticipated Drill Stem tests may be run on shows of interest.

## ABNORMAL CONDITIONS

- A. Pressures: No abnormal conditions are anticipated
  - Delaware pressure gradient 0.43 psi/ft
- B. Temperatures: No abnormal conditions are anticipated
- C.  $H_2S$ : None Anticipated.
- D. Estimated bottom hole pressure: 3,612 psi at TD

## ANTICIPATED START DATE

September 24, 2004

## COMPLETION

The location pad will be sufficient size to accommodate all completion equipment activities and equipment. A string of 2 3/8", 4.7#, N-80, EUE 8rnd will be run as production tubing. A Sundry Notice will be submitted with a revised completion program if warranted.

ANNULAR PREVENTOR MAY BE SUBSTITUTED FOR DOUBLE GATE PREVENTORS ROTATING HEAD TO BE USED WHEN AIR/AIR MIST DRILLING



2M CHOKE MANIFOLD EQUIPMENT - CONFIGURATION MAY VARY

## BLOWOUT PREVENTER

9-10 Inch 2000 psi minimum