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

Form C-101
Revised March 17, 1999

Submit to appropriate District Office
State Lease - 6 Copies
Fee Lease - 5 Copies

☐ AMENDED REPORT

RECEIVED JAN 2002 OIL CON. DIV. DIST. 3

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

[1] Operator Name and Address	[2] OGRID Number
Synergy Operating, LLC (Agent for Bois d' Arc Offshore, Ltd.) PO Box 5513, Farmington, NM 87499-5513	163458
	[3] API Number 30 - 031- 21009

[3] Property Code	[5] Property Name	[6] Well No.
28589	Bois d' Arc Wash 36 #	1-R

[7] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	36	20 N	5 W		1980'	South	1485	East	McKinley

[8] Proposed 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

[9] Proposed Pool 1	[10] Proposed Pool 2
WC 20N05W36J Mesaverde (Gas)	

[11] Work Type Code	[12] Well Type Code	[13] Cable/Rotary	[14] Lease Type Code	[15] Ground Level Elevation
N	G	R	S	6620'-
[16] Multiple	**[17] Proposed Depth**	**[18] Formation**	**[19] Contractor**	**[20] Spud Date**
No	2400'	Pt. Lookout	Unknown	02-15-2002

[21] Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
12-1/4"	8-5/8"	24# K-55	150'	210	Surface
6-3/4"	5-1/2"	15.5# K-55	2400'	440	Surface

22 Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Latitude: 35 deg, 55 min, 06 sec North, Longitude: 107 deg, 10 min, 49 sec West, **This is a redrill of the Bois d' Arc Wash 36 # 1.**

SEE ATTACHED INFORMATION

[23] I hereby certify that the information given above is true and complete to the best of my knowledge and belief.

Signature:

Printed name: Thomas E. Mullins

Title: Engineering Manager

Date: 1-25-2002

Phone: (505) 566-3725

OIL CONSERVATION DIVISION

Approved by:

Title: DEPUTY OIL & GAS INSPECTOR, DIST. #3

Approval Date: JAN 28 2002

Expiration Date: JAN 28 2003

Conditions of Approval:

Attached ☐

DISTRICT I
P.O. Box 1980, Hobbs, N.M. 88241-1980

DISTRICT II
P.O. Drawer DD, Artesia, N.M. 88211-0719

DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410

DISTRICT IV
PO Box 2088, Santa Fe, NM 87504-2088

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87504-2088

Form C-102
Revised February 21, 1994
Instructions on back
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30 031 21009	97407	WC 20N5W36; Mesaverde

[4] Property Code	[5] Property Name	[6] Well Number
28589	WASH #36	1R

[7] OGRID No.	[8] Operator Name	[9] Elevation
163458	BOIS d' ARC Offshore, Inc. (SYNERGY OPERATING LLC.)	6620

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
J	36	20-N	5-W		1980	SOUTH	1485	EAST	MCKINLEY

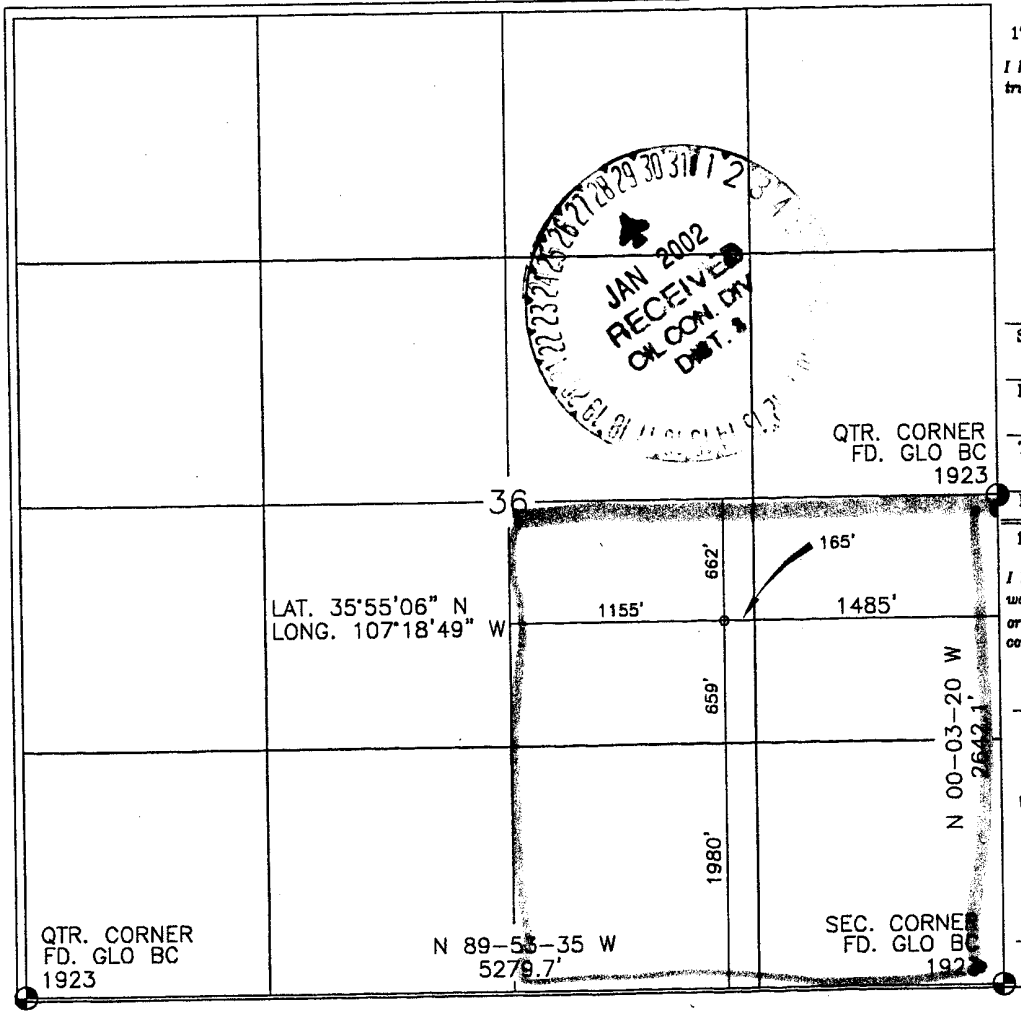
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.

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

16



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief

Signature

THOMAS E. MULLINS
Printed Name

ENGINEERING MANAGER
Title

1-25-2002
Date

[18] SURVEYOR CERTIFICATION

I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

12-2
Date of Survey

Signature and Seal of Professional Surveyor:

ROBERT RUSH
NEW MEXICO
8894
REGISTERED PROFESSIONAL LAND SURVEYOR

8894
Certificate Number

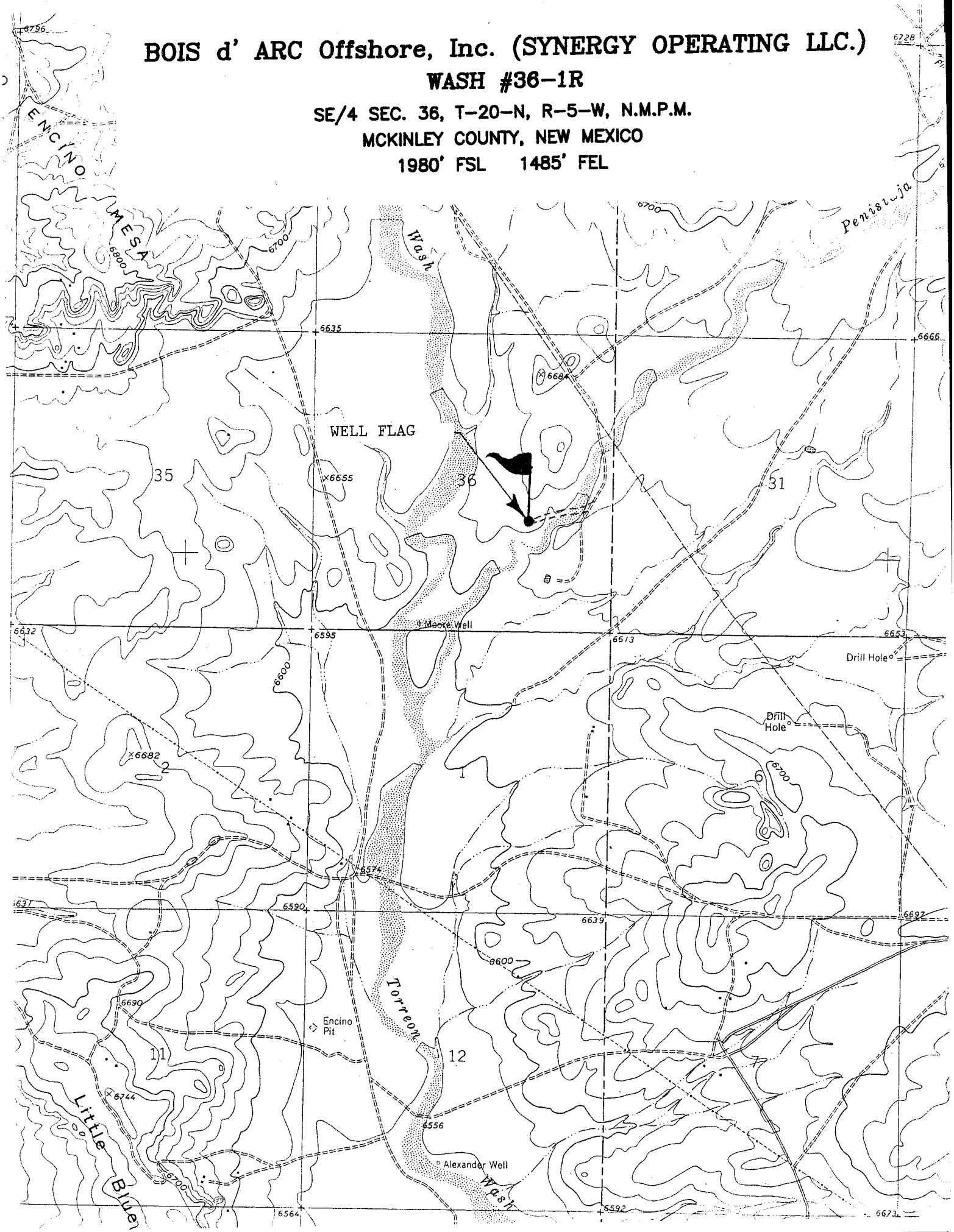
BOIS d' ARC Offshore, Inc. (SYNERGY OPERATING LLC.)

WASH #36-1R

SE/4 SEC. 36, T-20-N, R-5-W, N.M.P.M.

MCKINLEY COUNTY, NEW MEXICO

1980' FSL 1485' FEL



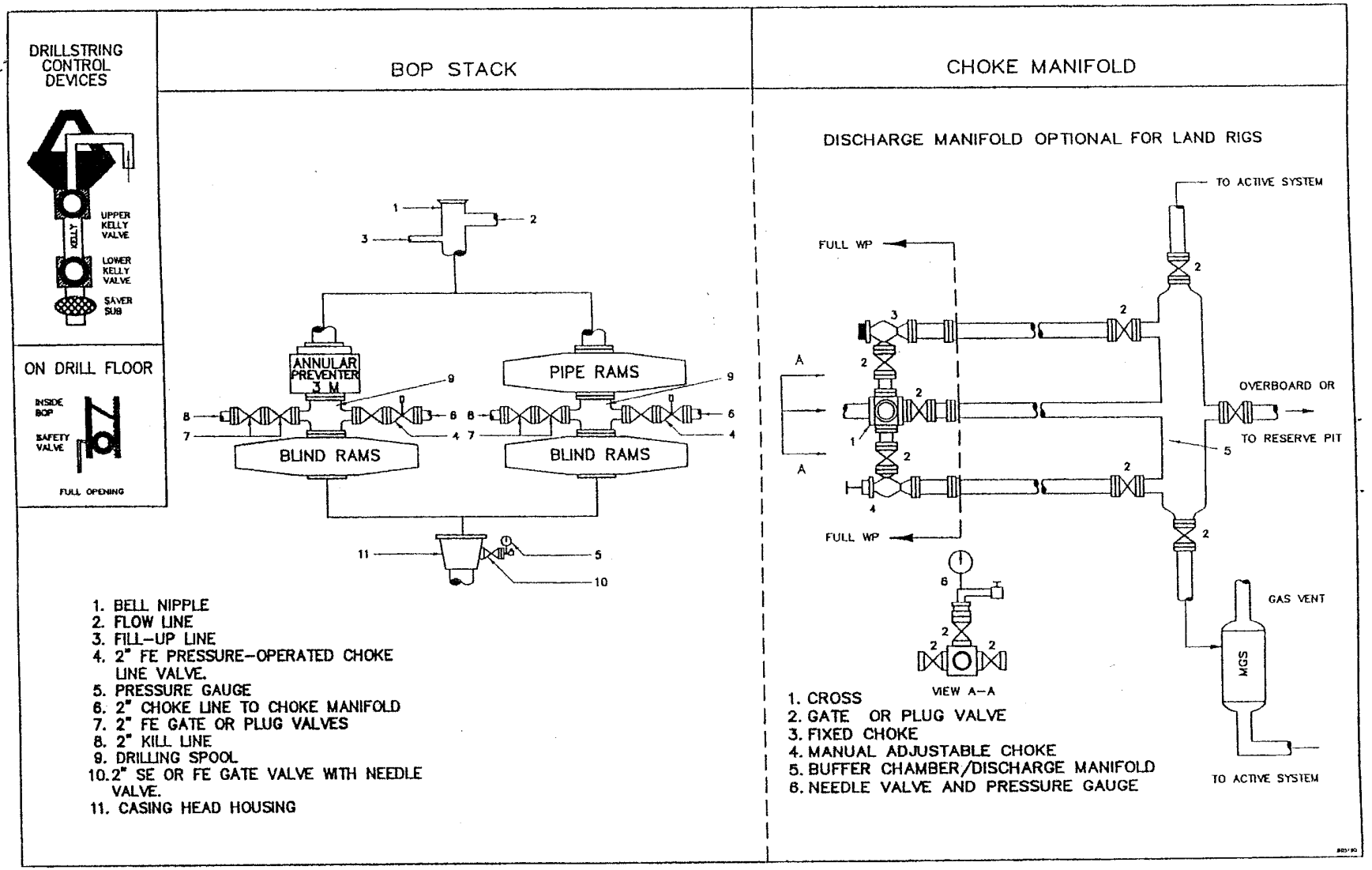


Fig. 2.4. Class 2 BOP and Choke Manifold.

9. Cement Program:

Surface String: 210 sacks of Class "B" cement or equivlanet (1.18 ft3/sx yield, 15.6 ppg) with 3 percent CaCl in mix water and ¼# sack celloflake. Volume is based upon 200% excess. A wooden wiper plug will be displaced within 20' of the shoe. This casing string will be cemented to surface.

Production String: **Lead Cement:** 331 sxs Class A cement. Cement to surface - 150% excess casing/hole annular volume w/ Type III cement + 0.25#/sx Cello-flake + 5#/sx LCM-1 + 8% bwoc Bentonite + 3% bwoc Potassium Chloride mixed at 12.2 ppg. (2.48 cf/sx yield = 1,381 cf)

Tail: 150 sxs Premium Lite High Strength FM + 0.25#/sx Cello-flake + 3% Potassium Choride + 0.3% bwoc CD-32 + 0.7% bwoc Fl-52 mixed at 12.5 ppg. (2.02 cf/sx yield = 303 cf)

A Guide Shoe, and autofill float collar will be run 20' off of bottom.

Note: Synergy continues to work to improve the cement slurries on our wells. Any modifications to cement will be of equivalent total volume, but would have better mechanical properties than the cement we are currently using.

Centralizer Program:

Surface: Total four (4) minimum - 10' above shoe and top of 2nd, 3rd, & 4th jts. If 20' surface casing joints are used, then Four (4) centralizers will be run evenly spaced throughout the hole.

Production: Total seven (7) - 10' above shoe and top of 1st, 2nd, 4th, 6th, 8th, & 10th jts. a cement basket will be run above the Pictured Cliffs, with turbolators above and below it.

Turbulators: Total two (2) - one at 1st jt below Pictured Cliffs and 1 jt above the turbolator.

10. A 3000# Blow-Out Preventer System will be used for this well, consisting of the following items:

2 Hydraulic Rams (Pipe & Blind) or Hydraulic and Annular with Blind Ram on Bottom.
1- Kill Line (2-inch minimum)
1- Kill Line Valve (2-inch minimum)
1 – Choke Line Valve
2 chokes (refer to diagram in Attachment) on Choke Manifold
Upper kelly cock valve in open position with handle available
Safety Valve (in open position) and subs to fit all drill strings in use (with handle available)

Pressure gauged choke manifold
2 inch minimum choke line
Fill-up line above the uppermost preventer

The BOP equipment will be pressure and function tested according to Onshore Order # 2 – III.A-1 with a 30% safety factor. Please see that attached diagram.

11. Drilling Mud Prognosis:

Depth	Type	Wt./ppg.	Vis.,	Fluid Loss	pH
0'-350'	FW gel/lime spud mud	8.4 – 8.7	30-50	NC	10
350'- TD	Low solids non-dispersed	8.4 - 9.0	30-40	<20 cc's	9.5-10

Sufficient material needed to maintain mud properties, control loss circulation, and absorbent materials to contain any unforeseen pressure control situations will be maintained at the wellsite during all drilling operations. A mud logging unit w/ gas detector as well as a mud pit level indicator will be used out from under surface to TD.

12. The testing, logging, and coring programs are as follows:

D.S.T.s or cores: Rotary Full Cores are planned, depths to be determined based upon mud logger and hole conditions..

Logs: Mud logger out from under Surface to TD, Openhole Logs to include SP, Induction, Density, & Neutron. Additional logs may be run.

13. No Anticipated or abnormal pressures or temperatures should be encountered. No hydrogen sulfide is present or anticipated.

Estimated Bottomhole pressures: Pt. Lookout is - +/- 1000 psi

Surface casing and BOPE equipment will be tested to 1500 psi prior to drilling of the shoe. 3000# BOPE equipment will be utilized during production hole drilling operations.

14. The anticipated starting date is sometime in the 1st Qtr 2002 with duration of drilling operations for approximately 10 days thereafter. Completion Operations should take 10 days. Production Equipment will be installed and the well production tested based upon completion results.