Form 3160-3 FORM APPROVED OMB No. 1004-0136 Expires November 30, 2000 (August 1999) **UNITED STATES** DEPARTMENT OF THE INTERIOR 5. Lease Serial No. NM 013688 **BUREAU OF LAND MANAGEMENT** 6. If Indian, Allottee or Tribe Name APPLICATION FOR PERMIT TO DRILL OR REE 1a. Type of Work: **⊠** DRILL ☐ REENTER 7. If Unit or CA Agreement, Name and No.  $\odot$ Lease Name and Well No. ATLANTIC LS 1 B 1b. Type of Well: Gas Well Single Zone Oil Well ☐ Other 2. Name of Operator API Well No. Contact: CHERRY HLAVA BP AMERICA PRODUCTION COMPANY 30-045-36874 10. Field and Pool, or Exploratory 3a. Address 3b. Phone No. (include area Ph: 281.366,4081 BLANCO MESAVERDE HOUSTON, TX 77253-3092 4. Location of Well (Report location clearly and in accordance with any State requirements.\*) 11. Sec., T., R., M., or Blk. and Survey or Area SENE Lot 5 1500FNL 760FEL 36.87250 N Lat, 107.83000 W Lon # At surface Sec 25 T31N R10W Mer NMP At proposed prod. zone NENE Lot 1 760FNL 760FEL A Distance in miles and direction from nearest town or post office 10.4 MILES EAST FROM AZTEC, NM 12. County or Parish SAN JUAN 13. State NM Distance from proposed location to nearest property or 16. No. of Acres in Lease 17. Spacing Unit dedicated to this well lease line, ft. (Also to nearest drig. unit line, if any) 297.40 Distance from proposed location to nearest well, drilling, completed, applied for, on this lease, ft. 19. Proposed Depth 6095 MD WY2924 5995 TVD 22. Approximate date work will start 21. Elevations (Show whether DF, KB, RT, GL, etc. 23. Estimated duration 6546 GL 04/01/2005 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. Bond to cover the operations unless covered by an existing bond on file (see A Drilling Plan. Item 20 above). A Surface Use Plan (if the location is on National Forest System Lands, the Operator certification SUPO shall be filed with the appropriate Forest Service Office). Such other site specific information and/or plans as may be required by the authorized officer. Name (Printed/Typed) 25. Signature 02/03/2005 (Electronic Submission) CHERRY HLAVA Ph: 281.366.4081 Title **AGENT** Approved by (Signatur Name (Printed/Typed) Office

Application approval does not warrant or certify 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.

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.

Additional Operator Remarks (see next page)

Electronic Submission #53703 verified by the BLM Well Information System For BP AMERICA PRODUCTION COMPANY, sent to the Farmington

DRILLING OPERATIONS AUTHORIZED ARE SUBJECT TO COMPLIANCE WITH ATTACHED "GENERAL REQUIREMENTS".

HOLD CLOS FOR Directional Survey

This action is subject to technical and procedural review pursuant to 43 CFR 3166.3 and appeal pursuant to 43 CFR 3165.4

\*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\* OPERATOR-SUBMITTED \*\*

District I PO Box 1980, Hobbs NM-88241-1980

Disuier II

PO Drawer KK, Anesia, NM 87211-0719

District III 1000 Rio Brazos Rd., Aztev, NM 87410

District IV

PO Box 2088, Santa Fe, NM 87504-2088

#### State of New Mexico Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION PO 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

API Number	- Pool Code	Pool Name	VA. 3, A.
30-045-3	2874 72319	BlancoMesaverde	
* Property Code	A A A A A A A A A A A A A A A A A A A	1 Property Name	* Well Number
000278	Atlantic LS		# 1B
OGRID No.	20 € 1 € 1 € 1 € 1 € 1 € 1 € 1 € 1 € 1 €	A Operator Name	* Elevation
000778	BP AMERICA PR	ODUCTION COMPANY	6546

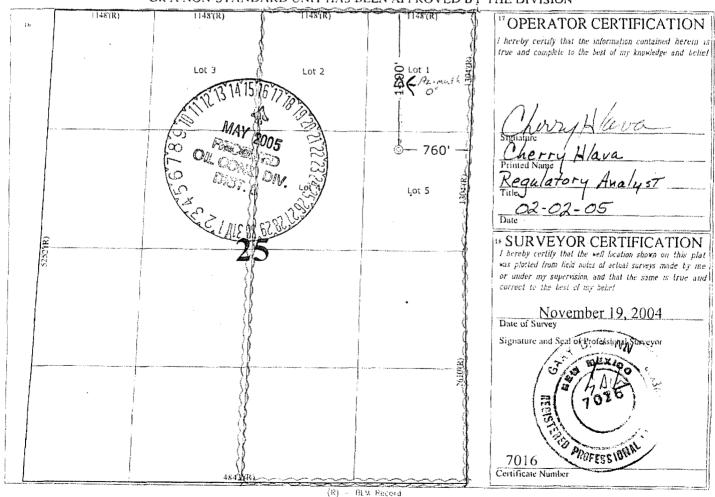
Surface Location

UL or Lot No. Section Township	Range Louldn	Feet from the	North/South line	Fret from the	East/West line	County
H (Lot 5) 25 31 N	10 W	1500	NORTH	760	EAST	SAN JUAN
The second secon	II was a war a	·	Annual Committee of the			

Bottom Hole Location If Different From Surface

	DOROIII FIOTE LOCALI	on a Directal re	nn Surface		
' Ut, or lor no.   Section   Township	Range Lordon Feet fru	on the North/South line	Feet from the	Easi/West line	County:
A (lot 1) 25 31 N	10 W 760	o NORTH	760	EAST	SAN JUAN
Dedicated Acres <sup>9</sup> Joint of Infit! <sup>9</sup> Co.	onsolidation Code 5 Order No.	Committee of the second control of the secon	Annual Control of Cont	* Commission of the Commission	
297.40					

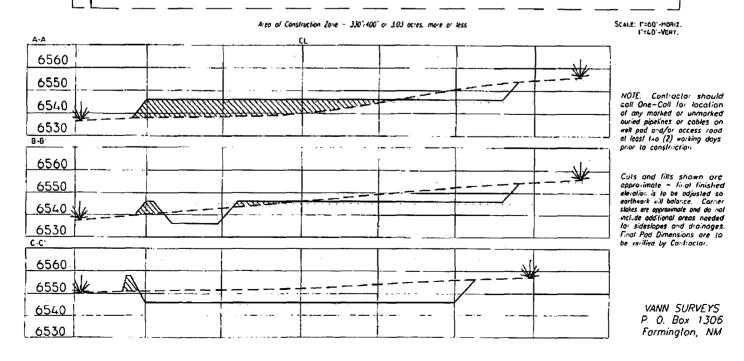
NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION



Submit 3 Copies To Appropriate District Office	State of New Mexi	ço	Form C-103
District I	Energy, Minerals and Natura	Resources	May 27, 2004
1625 N. French Dr., Hobbs, NM 88240			WELL API NO.
<u>District II</u> 1301 W. Grand Ave., Artesia, NM 88210	OIL CONSERVATION D	IVISION	NEW WELL
District III	1220 South St. Franci	s Dr.	5. Indicate Type of Lease
1000 Rio Brazos Rd., Aztec, NM 87410	Santa Fe, NM 8756		STATE FEE  6. State Oil & Gas Lease No.
<u>District IV</u> 1220 S. St. Francis Dr., Santa Fe, NM	Suita 1 0, 1 (1) 1 0 / 3		o. State Off & Gas Lease No.
87505			
	ICES AND REPORTS ON WELLS		7. Lease Name or Unit Agreement Name
	SALS TO DRILL OR TO DEEPEN OR PLUG CATION FOR PERMIT" (FORM C-101) FOR		Atlantic LS
PROPOSALS.)	CATION FOR PERMIT (FORM C-101) FOR	SUCH	(BLM Lease# NM - 013688)
1. Type of Well: Oil Well	Gas Well  Other		8. Well Number
			1 B
2. Name of Operator	COMBANIZ		9. OGRID Number
3. Address of Operator			000778  10. Pool name or Wildcat
P.O. BOX 3092 HOUSTON, TX	77079-2064		Blanco Mesaverde
	77077-2004		Dianeo Mesaverue
4. Well Location			
	1500 feet from the North		
Section 25		Range 10W	NMPM SAN JUAN County
	11. Elevation (Show whether DR, R		A Company of the Comp
Pit or Below-grade Tank Application 🛛 o	6546' G	R	A STATE OF THE STA
Pit type_DRILLINGDepth to Ground	dwater <u>&gt;100'</u> Distance from nearest fresh w	ater well $\geq 1000$ ' D	istance from nearest surface water_> 1000'
Pit Liner Thickness: 12 mil	Below-Grade Tank: Volume 95	bbls; Constructi	ion Material IMPERVIOUS
12. Check A	Appropriate Box to Indicate Nat	ure of Notice. F	Report or Other Data
NOTICE OF IN	ITENTION TO:	SUBS	SEQUENT REPORT OF:
PERFORM REMEDIAL WORK	PLUG AND ABANDON 🗌 📗	REMEDIAL WORK	☐ ALTERING CASING ☐
TEMPORARILY ABANDON	CHANGE PLANS	COMMENCE DRIL	.LING OPNS.□ P AND A □
PULL OR ALTER CASING	MULTIPLE COMPL	CASING/CEMENT	JOB 🗌
OTHER LINES SOUL ING SIT			
OTHER: LINED DRILLING PIT		OTHER:	
			give pertinent dates, including estimated date ach wellbore diagram of proposed completion
or recompletion.	ork). SEE ROLE 1103. For Muniple	completions. Atta	acti wembore diagram of proposed completion
or recompletion.			
Construct a lined drilling pit per l	BP America – San Juan Basin Drilli	ng/ Workover Pit	Construction Plan issued date of
11/17/2004. Pit will be closed acco			
I hereby certify that the information	above is true and complete to the best	of my knowledge	and belief. I further certify that any pit or below-
grade tank has been/will be constructed or	closed according to NMOCD guidelines $\boxtimes$ ,	a general permit 🔲 o	or an (attached) alternative OCD-approved plan .
	5	. –	· · · · · ·
SIGNATURE_ Cherry Hlav	oa TITLE R	egulatory Analyst	DATE_02/02/2005_
	***************************************	-games j i mur you	- CANAL CONTROL CONTRO
Type or print name Cherry Hlava	E-mail address: hlavacl@bp.	com	Telephone No. 281-366-4081
For State Use Only	1	***	1861 A V -
<u></u>	1/1		"" <b>AY</b> 1 6 2005
APPROVED BY:	TITLESTIT	OIL & GAS MED	DATE
Conditions of Annuarial (if any)			1 to
Conditions of Approval (if any)		1-	terms, 1951, All

## PAD LAYOUT PLAN & PROFILE BP AMERICA PRODUCTION COMPANY

Atlantic LS # 1B 1500' F/NL 760' F/EL Lat: 36°52′21″ Long: 107°49′48″ SEC. 25, T31N, R10W, N.M.P.M. SAN JUAN COUNTY, NEW MEXICO E X I S T I N G B PAD C Α @ 0.5 Proposed Drainage Diversion 8. F 6' PROPOSED PROPOSED FLARE PIT 18 RESERVE PIT Hud Tanks ELEV. | 6546 N 55° W POLICO 1351 6 Draw Works LAYDOWN S ģ Divert Existing Drainage @U0 Proposed Access Road 150 105 В. NOTES: Reserve Pit Dire - Should be 8' above Deep side (avertion - 3' wide & 1' above shahow side). Flore Pit - Overtion pipe should be halfway believen top and bottom and extend over plastic liner and into those pit. -400'-CONSTRUCTION ZONE



# Additional Operator Remarks Atlantic LS 1B APD

BP America Production Company respectfully requests permission to directionally drill the subject well to a total MD depth of approximately 6095' and a TVD of 5995' and complete into the Blanco Mesaverde.

If terrain allows it is our intent to pre-set the 9 5/8" casing on the above mentioned well by drilling a surface hole with air/air mist in lieu of drilling mud and the surface casing be cemented with 94.5 cu/ft type I-II, 20% FLYASH, 14.5 PPG, 7.41 gal/sk, 1.61 cf/sk Yield, 80 DEG BHST ready mix cement. If the area will not allow for pre-set the approved cement program will be followed.

### SUPPLEMENTAL TO SURFACE USE PLAN

#### New Facilities:

A 4.5" diameter buried steel pipeline that is +/- 200 feet in length will be constructed. The pipe wall thickness is .156 and the pipe wall strength is 42,000#. It will be adjacent to the access road and tie the well into an existing gas meter operated by BP America Production Company. The pipeline will not be used to transport gas to drill the well. After the well is spud the pipeline will be authorized by a right-of-way issued by El Paso Field Services.

APD/ROW

### **Cementing Program**

Well Name:	Atlantic LS #1B	500' ENII - 760							
Location: County:	25-31N-10W : 1 San Juan	300 FINL, /60	FEL		Well Flac				
State:	New Mexico					MesaVe	rdo		
Siale.	New Mexico				Formation:	.,	6560		
					KB Elev (e GL Elev. (e	•	6546		
					GL Elev. (6	<b>:</b> St)	6546		
Casing Program									
Casing String	Est. Depth	Hole Size	Casing Size	Thread	TOC	Stage To	ol		
	(ft.)	(in.)	(in.)		(ft.)	Or TOL (	ft.)		
Surface	200	13.5	9.625	ST&C	Surface	NA			
Intermediate	3083	8.75	7	LT&C	Surface	NA			
Production -	6095	6.25	4.5		2983	2561			
Casing Propertie	s:								
Casing String	Size	Weight	Grade	Burst	Collapse	Joint St.		Capacity Dr	ift
	(in.)	(lb/ft)		(psi.)	(psi.)	(1000 lbs	.)	(bbl/ft.) (in	.)
Surface	9.62	5	2 H-40	2270		1400	254	0.0787	8.845
Intermediate			) K-55	3740		2270	234	0.0405	6.456
Production -	4.5		5 J-55	4790		4010	132	0.0159	3.927
Mud Program									
Apx. Interval	Mud Type	Mud Weight				Properties Prio	Cemer	nting:	
(ft.)				PV	<20				
				YP	<10				
0 - SCP	Water/Spud	8.6-9.2	2	Fluid Los	s:<15				
SCP - ICP	Water/LSND	8.6-9.2	2						
ICP - ICP2	Gas/Air Mist	NA	<u>\</u>						
ICP2 - TD	LSND	8.6 - 9.2	<u> </u>						
Cementing Progra	am:								
			Surface		Intermed	liate		Production	
Excess %, Lead			100		100			40	
Excess %, Tail			NA		0			40	
BHST (est deg. F	)		72		110			159	
Time Between Sta			NA		· NA			NA	
Special Instruction			1,6		1,6			2,6	
	1. Do not wash	pumps and line	es.						
	2. Wash pumps	and lines.							
	<ol><li>Reverse out</li></ol>								
	4. Run Blend Te	st on Cement							
			Density on 3.5"						
	<ol><li>Confirm dens</li></ol>	itometer with p	pressurized mud	scales					
Surface:			***************************************		<b></b>				· · · · · · · · · · · · · · · · · · ·
	Preflush		20 bbl.	FreshWa	iter				
	•								
•	Slurry 1	154	sx Class C Cer					195 cu	ft
	TOC@Surface		+ 2% CaCl2 (ad	ccelerator)					
								0.4887 cu	ft/ft OH
•								100 %	excess
Slurry Properties:		Density		Yield		Water			
, -p		(lb/gal)		(ft3/sk)		(gal/sk)			
	Slurry 1	(ib/gai) 15.2		1.27	,	(yal/sk)	5.8		
	Ciury	13.2	_	1.27			ა.8		
Casing Equipmen	t:	9-5/8", 8R, S	ST&C						
0 -4-4		1 Guide Sho							
		1 Top Wood							
			ert float valve						
		AUTOIN IUS	en noar valve						

### **Cementing Program**

Centralizers, as needed

- 1 Stop Ring
- 1 Thread Lock Compound

Intermediate:					
Fresi	n Water	20 bbl	fresh water		
Lead			288 sx Class "G" Cem	ent	751 cuft
Slurr	y 1		+ 3% D79 extende	er	
TOC	@Surface		+1/4 #/sk. Celloph	nane Flake	
			+ 0.1% D46 antifo		
			59 sx 50/50 Class "G	•	
Tail			+ 2% gel (extende		75 cuft
Slurr	•		0.1% D46 antifoai		0.4500
	500 ft fill		+1/4 #/sk. Cellopt + 2% S1 Calcium		0.1503 cuft/ft OH 0.1746 cuft/ft csg anr 80 % excess
Slurry Properties:	Density		Yield	Water	
	(lb/gal)		(ft3/sk)	(gal/sk)	
Slurry 1	11.7		2.61	17.77	
Slurry 2	13.5		1.27	5.72	
Casing Equipment:	7", 8R, S	T&C			
	1 Float SI	noe			
	1 Float Co	ollar			
	1 Stop Ri	-			
		ers, as needed			
	1 Top Ru 1 Thread	bber Plug Lock Compound	j		
Production:					
Fres	h Water	10 bbl	CW100		
Slurr	у		181 LiteCrete D961 / [	D124 / D154	
			+ 0.03 gps D47 ar	ntifoam	457 cuft
			+ 0.5% D112 fluid	loss	
тос	@Liner Top		+ 0.11% D65 TIC		
					0.1026 cuft/ft OH
Slurry Properties:	Density		Yield	Water	40 % excess
	(lb/gal)		(ft3/sk)	(gal/sk)	0.1169 cuft/ft csg ann
Slurry	9.5		2.52	6.38	
Casing Equipment:	4-1/2", 8F	R, ST&C			
	1 Float SI				
	1 Float C	ollar			
	1 Stop Ri	ng			
		ers, as needed			
	1 Top Ru	bber Plug			
		Lock Compound	i		
		•			

Schlumberger Private Page 2

		-	B	P AME	RICA PI	ROI	DUCTION	1 CO	MP.	NY			
					ING AND	COI							
l pasa.	Atlantic LS			Well N	ame & No.					Field:	Blanco Me	saverde	
	San Juan.				Location: 2			D' FNL. 76	30' FEL				
Minerals:	<del> </del>						6.8725995 L						
Rig :	Aztec 507			ВН	Location:						7.8294036		
		elow the top	of the Po		ıt, set 4-1/2" p	_							
					<u> </u>								
	N	ETHOD OF	DRILLIN	IG				PPROXI	MATE	DEPTHS O	F GEOLO	ICAL M	ARKER
TYPE	OF TOOLS	3	DI	EPTH OF I	DRILLING		Actual	GL: 6	546		Estimated	KB: 6,5	660.0'
	Rotary			0 - T	D	Ī	Marker	,		SUBSE	4	TVD	APPROX. MD
		LOG PRO	OGRAM			Ī	Ojo Alamo			4,588'		1,972'	2,020'
Туре			Dep	th Interva	1 .		Kirtland			4,472'		2,088	2,141'
Single F	Run						Fruitland		*	3,757'		2,803'	2,887'
						L.	Fruitland Coa			3,522'		3,038'	3,133'
						_ F	Pictured Cliffs	S	*	3,222'		3,338'	3,438'
							Lewis			3,000'		3,560'	3,660'
Cased H						1.	Cliff House		#	1,709'		4,851'	4,951'
TDT- C	RL			to 7" shoe			Menefee Point Lookou	•	#	1,383'		5,177'	5,277'
REMARKS:			identity 4	4 ½" ceme	пстор	$\rightarrow$	Mancos		#	965' 662'		5,595' 5,898'	5,695' 5,998'
- Please report	any flares (	magnitude :	& duration	ı).					1	002	_	J,U30	3,330
5255 100011	, naice (	agrinidad (		.,.		ŀ			1		_		
						t							
						-			1				
						İ							
						Ī							
							TOTAL D	EPTH:		565'		5,995'	6,095'
							# Probable c	<del></del> _				* Possib	le Pay
SPECIAL TEST	rs							CUTTING					NG TIME
TYPE								FREQUENCY DEPTH FREQUENCY			DEPTH		
REMARKS:					-		non	none 3,083' to TD Geolograph			ograph_	0 - TD	
MUD PROGRA	M·												
Interval	Type□M	lud	#/gal	\ \	/is, □sec/qt		/30 min			Othe	r Specific	ation	
200'	Spud		.8 - 9.0		ent to clean h	ole.	700 11111			Othe	. оробии	411011	
3,083'	Water/LS		4 - 9.0	1	one to diduit to	0.0.	<9		Sweep	hole while w	hilst water	drillina.	LCM onsite
6,095'	Air		1	10	00 cfm for bit								clean wellbore
CASING PROG	·			1 10	OU CITITION DIE		<u> </u>	VOIC	1110 30	incient to m	annani a si	able and	Clean Wellbore
Casing PROG		Depth		Size	Casing S	izo	Grade, Thre	and W	eight	Landing	Doint		Cement
Surface/Conduc		200'	-	13 1/2"	9-5/8"	126	H-40 ST&	<del></del>	32#	Lanung	FOIL		emt to surface
Intermediate 1		3,083'		8-3/4"	7"	-	J/K-55 ST		20#	50' above	FT coal		mt to surface
Production		6,095'		6-1/4"	4-1/2"		J-55		1.6#	DKO			side Intermediate -
										<u> </u>			Survey required
CORING PROC	RAM:												
None													
COMPLETION	PROGRAM	:											
Rigless, 2-3 Sta		Entry Hydra	ulic Frac,	FMC Unil	nead								
GENERAL REM													
Notify BLM/NM				o testing, a	ind Casing an	d Cer	menting.						
BOP Pressure	Testing Re	quirement	s										
Format	ion	Der	oth	A	nticipated be	ottom	hole pressu	ire		Max an	ticipated	surface	pressure**
Cliffhor	use	4,8	51'			500						0	
Point Loc	okout	5,5	95'			600						0	
Dako	ta					2600							
Reque	sted BOP F	ressure Te	st Excepti	on = 1500	psi	** No	te: Determin	ed using	the fol	lowing formu	la: ABHP	– (.22*T\	VD) = ASP
Form 46 Review			Logging	programir	eviewed by:								
PREPARED BY	<b>/</b> :			APPROV	ED:		DATE:		: APPROVED:				DATE:
							<del></del>						
HGJ Form 46 7-84bv	JMP/JLP			or Drilling			<del></del>	Jan-05		For Product			

## SAN JUAN BASIN Blanco Mesaverde Pressure Control Equipment

#### **Background**

The objective Mesaverde formation maximum surface pressure is anticipated to be less than 1000 psi, based on shut-in surface pressures from adjacent wells. Pressure control equipment working pressure minimum requirements are therefore 2000 psi. Equipment to be used will conform to API RP-53 (Figure 2.C.2) for a 2000 psi system per Federal Onshore Order No. 2. Due to available conventional equipment within the area, 3000 psi rated pressure control equipment will typically be utilized in a single ram type arrangement. Regional drilling rights to be utilized have substructure height limitations which exclude the use of annular preventers; therefore a rotating head will be installed above these rams. This pressure control equipment will be utilized for conventional drilling below conductor to total depth in the Blanco Mesaverde. No abnormal temperature, pressure, or H2S anticipated.

### **Equipment Specification**

### <u>Interval</u>

### **BOP Equipment**

Below conductor casing to total depth

11" nominal or 7 1/16", 2000 psi Single ram preventer with 3000 psi annular preventer and rotating head.

All ram type and annular preventers as well as related control equipment will be hydraulically tested to 250 psi (low pressure) and 1500 psi (high pressure), upon installation, following any repairs or equipment replacements, or at 30 day intervals. Accessories to BOP equipment will include kelly cock, upper kelly cock with a handle available, floor safety valves and choke manifold which will also be tested to equivalent pressure.

### **BP American Production Company**

Well Control Equipment Schematic



