Form 9-331 C				STIR	MIT I	RIPLICATE	• Tan-	
(May 1963)		ED STATE		(0		actions on		u No. 42-R1425.
I = 1	DEPARTMENT		_	ĸ			5. LEASE DESIGNATION	
	GEOLOG	ICAL SURV	ΈY				069876	
APPLICATION	FOR PERMIT TO	D DRILL,	DEEPEN,	OR I	PLUG	BACK	6. IF INDIAN, ALLOTTEI	OR TRIBE NAME
1a. TYPE OF WORK			'					
DRILI	_ LxJ	DEEPEN		PL	UG BA	.CK 🗌	7. UNIT AGREEMENT N	AME
b. TYPE OF WELL OIL C GAS			~~~~~			_	BIG EDDY	UNIT
WELL WEL	L X OTHER		SINGLE ZONE	X	MULTI ZONE	PLE	8. FARM OR LEASE NAI	ME
2. NAME OF OPERATOR	<u> </u>						BIG EDDY	UNTT
PERRY R. BA	SS				PSCE		9. WELL NO.	
3. ADDRESS OF OPERATOR					KECE:		90	
P.O. BOX 27	60 MIDLAND, T>	(, 79702					10. BIELD AND POOL, C	
4. LOCATION OF WELL (Repo At surface			th any State	requirem	¥s. 1) 3	1981	WILDCAT	a " hibeat
	1980 FWL, SEC	2 4, T-22S	5, R-29-1				11. SEC., T., R., M., OR I AND SURVEY OR AB	BLK.
At proposed prod. zone					O. C.	5	W KSEC 4, T-	
same as abo				AP	TESIA, C	en c	SEU 4, 1-	22-3, K-29-E
14. DISTANCE IN MILES AND	DIRECTION FROM NEARE	ST TOWN OR POS	T OFFICE*				12. COUNTY OR PARISH	13. STATE
13 miles ea	st of Carlsbad.	N M					Eddy	N. M.
15. DISTANCE FROM PROPOSE LOCATION TO NEAREST PROPERTY OR LEASE LIN	D.		16. NO. OF	ACRES IN	LEASE	17. NO. C TO TI	F ACRES ASSIGNED	1
(Also to nearest drlg. )	init line, if any) 198	30'					320	
18. DISTANCE FROM PROPOSI TO NEAREST WELL, DRII	ED LOCATION*		19. PROPOS	ED DEPTH		20. ROTA	RY OR CABLE TOOLS	
OR APPLIED FOR, ON THIS	LEASE, FT.		1	3,700			Rotarv	
21. ELEVATIONS (Show wheth	er DF, RT, GR, etc.)						22. APPROX. DATE WO	RK WILL START*
GL 3413'							Upon Appro	oval
23.	PR	OPOSED CASH	NG AND CE	MENTIN	G PROGR	AM		
SIZE OF HOLE	SIZE OF CASING	WEIGET PER F	00T	SETTING	DEPTH	1	QUANTITY OF CEMEN	
15"	11 3/4"	42#		450		300 9	x circulate to	
11"	8 5/8"	2.4 #		3,250'			sx circulate to	
7 7/8"	5 1/2"	1.7#		TD		800 s	·····	

Drilling procedure, BOPE Diagrams, anticipated formation tops of surface use plans are attached.

Gas is dedicated.

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen or plug back, give data on present productive zone and proposed new productive zone. If proposal is to drill or deepen directionally, give pertinent data on subsurface locations and measured and true vertical depths. Give blowout preventer program, if any.

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signed Stephen Smith	TITLE Engineering Assistant	DATE March 3, 1981
(This space for Federal or State office use)		
PERMIT NO.	APPBOVAL DATE	· · · · · · · · · · · · · · · · · · ·
APPROVED BY CONDITIONS OF APPROVAL, IF ANY :	TITLE	DATE

\*See Instructions On Reverse Side

#### NEV IXICO OIL CONSERVATION COMMISSIC WELL LOCATION AND ACREAGE DEDICATION PLAT

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		All distances must be from			
Operator Perry	R. Bass		Big	Eddy Unit	<sup>well No.</sup> 90
Unit Letter	Section 4	Township 22 South	29 East	County	Eddy
Actual Footage Loc 1980	ation of Well; feet from the	south line and	2240	west	line
Ground Level Elev. 3419.1	Producing Form MOTTOW	mation Po	∞ı Wildcat		Dedicated Acreage: 320 Acrea
<ol> <li>If more the interest and</li> <li>If more the interest and interes</li></ol>	nan one lease is nd royalty). an one lease of di	ifferent ownership is dec	outline each and ide licated to the well,	entify the ownership	the plat below, thereof (both as to working of all owners been consoli-
dated by c XYes If answer this form i No allowal	ommunitization, u No If an is "no;" list the of f necessary.) ble will be assigned	nitization, force-pooling swer is "yes;" type of a owners and tract descrip ed to the well until all in	etc? onsolidation <u>Unit</u> tions which have a terests have been	t ctually been consolic consolidated (by cor	dated. (Use reverse side of nmunitization, unitization, n approved by the Commis-
			1 1 1		CERTIFICATION
	       +			best of r ta Name	erein is true and complete to the ny knowledge and bylief. <u>Shen Smith</u> en Smith
				Position Engine Company	eering Assistant R. Bass
	1			Date 4-7-81	
2			ALLER CA	shown ou notes of under my is true knowled	certify that the well location in this plat was plotted from field i octual surveys made by me or y supervision, and that the some and correct to the best of my ge and belief.
			MERICO W. VILET	Registered	ch 30,1981 Professional Engineer ad Surveyor Mo. JOHN W. WEET 676
0 330 660	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	2000 2000	1500 1000 1		PATRICK A. ROMERO 6663 Ronald J. Eidson 3239

(May 1963) UI ED S	C.D. COPY	'RI. CATE•	Porm approved.
	THE INTERIOR (Other instru-	ctions on re-	Budget Bureau No. 42-R1424 5. LEASE DEBIGNATION AND SERIAL MO.
GEOLOGIC/	······································	·	069876
SUNDRY NOTICES ANI (Do not use this form for proposals to drill or Use "APPLICATION FOR PE	D REPORTS ON WELLS	ervoir	6. IF INDIAN, ALLOTTEE OR TRIBE NAME
Use "APPLICATION FOR PE	RMIT—' for such proposals.) RE	CEIVED	
OIL CAS WELL WELL OTHER			7. UNIT AGBEEMENT NAME Big Eddy Unit
2. NAME OF OPERATOR	MAY	1 3 1981	8. FABM OR LEASE NAME
Perry R. Bass 3. ADDRESS OF OPERATOR			Big Eddy Unit
P.O. Box 2760 Midland, T		C. D, , Office	9. WELL NO. 90
4. LOCATION OF WELL (Report location clearly and in a See also space 17 below.)	ccordance with any State requirements.	UFFICE	10. FIELD AND POOL, OB WILDCAT
At surface			Wildcat maran
1980' FSL & 2240' FWL Sec	4. T225 R29F		11. SEC., T., R., M., OR BLK. AND SURVEY OR AREA
			Sec. 4, T225, R29E
14. PERMIT NO. 15. ELEVATION 3419.1 GL	is (Show whether DF, RT, CR, etc.)		12. COUNTY OR PARISH 13. STATE
			Eddy NM
	x To Indicate Nature of Notice, F	Report, or O	ther Data
NOTICE OF INTENTION TO:	· _ ]	SUBSEQUI	ENT REPORT OF:
TEST WATER SHUT-OFF PULL OR ALTER FRACTURE TREAT NULTIPLE COMP			REPAIRING WELL
SHOOT OR ACIDIZE ABANDON*	SHOOTING OR A		ALTERING CASING ABANDONMENT <sup>•</sup>
REPAIR WELL - CHANGE PLANS	(Other)		
(Other) 17. DESCRIBE PROPOSED OR COMPLETED OPERATIONS (Clear) proposed work. If well is directionally drilled, g	Completie	on or Recomple	of multiple completion on Well tion Report and Log form.)
Perry R. Bass hereby submit old location was 1980' FSL been restaked 260' east, du 1980' FSL & 2240' FWL Sec. survey of this location wil Carlsbad, New Mexico and th articles in the Drilling Pr Use and Operations Plan wil	& 1980" FWL Sec. 4, T228 e to location on side of 4, T225, R29E. Please b 1 be done by New Mexico ey will forward a report ognosts. Development Pla	, R29E. hill. e advised Archaeold	The location has The location is now d that an archaeological ogical Services, Inc.,
			• • • •
			:
8. I hereby certify that the foregoing is true and corre SIGNED Stephen Smith	t TITLE Engineering Ass		DATE 4-6-81
(This space for Federal or State office use)			
APPROVED BY CONDITIONS OF APPROVAL, IF ANY:	TITLE		DATE
•	See Instructions on Roverse Side		

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See Instructions on Keverse Side

BING GIZZESDET ANTHSIN ANTHSIN

4/28

IOVAN

South Central Region P.O. Box 26124 Albuquerque, New Mexico 87125

> APR 2 9 1981 APR 2 9 1981 RECEIVED

Perry R. Bass P.O. Box 2760 Midland, Texas 79702

MAY 1 8 1981

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Gentlemen:

ARTENA CONCE NEWSWY sec. 4, T. 22 S., R. 29 B., Eddy County, New Mexico, lease IC-069876, to a depth of 13,700 feet to test the Morrow formation in the oil-potash area, is hereby approved as amended by stipulations attached to the application.

One copy of the application is returned herewith. Please notify the District Supervisor, Geological Survey, Roswell, New Mexico, in sufficient time for a representative to witness all cementing operations.

Sincerely yours,

(ORIG. SGD.) GENE F. DANIEL

Gene F. Daniel Deputy Conservation Manager Oil and Gas

Enclosure

CC: NHOCD (2) BLM-Carlsbad CM,SCR DCM-Mining (2) Regional Piles (2) Hebbs ARTESIA ARF RCF

GStewart:cg

# MERICO OF CONSERVATION COMMIS A WELL LOCATION AND ACREAGE DEDICATION PLAT

brm C+102 guerseden C+10

Elterniye .....

Peri	y R. Bas	S	L.	Big	Eddy		***:1 <sup>-1</sup> 90
K	4	22 Se	outh	1+ u-in 29	East	Eddy	
1980	to et « 1. Meruiz ) - fræt dzir - te	South	line on t	1980		West	and a second
3413.0	<ul> <li>months and a graduate gr Graduate graduate g</li></ul>	Morrow	F	and shows a state of the state	Wildcat	· · · · · · · · · · · · · · · · · · ·	320

If more than one lease is dedicated to the well, outline each and identify the ownership there if thath is to warking interest and royalty).

() If none-than one-lease of different ownership is dedicated to the well, none-the interestion of all owners menories (in stated is communitization, unitization, force-pooling, etc?)

X: Yes [ No. If answer is "yes," type of connocidation Unit

No allowable will be assigned to the well until all interests have been consolidated. By a communitization, unit, and a first-fixed-pooling, or otherwise) or until a non-standard unit, eliminating such interests, has been approved by the Commisssion.



## CASING DESIGN BIG EDDY UNIT NO. 90

# SLRFACE CASING

Segment	Size	Grade	Thread	Weight	Top	Bottom	Length	
1	11 3/4	H40	ST & C	42 #	0'+	450' <u>+</u>	450' <u>+</u>	
INTERMEDIATE CASING								
Segment	<u>Size</u>	Grade	Thread	Weight	Top	Bottom	Length	
1 2	8 5/8 8 5/8	S80 K55	ST & C ST & C	24 # 24 #	2550' <u>+</u> 0' <u>+</u>	3250'+ 2550' <u>+</u>	700' <u>+</u> 2550' <u>+</u>	
PRODUCTION CASING								
Segment	<u>Size</u>	Grade	Thread	Weight	Тор	Bottom	Length	
1 2 3	5 1/2 5 1/2 5 1/2	S95 N80 S95	LT & C LT & C LT & C	17 # 17 # 17 #	10170' <u>+</u> 530' <u>+</u> 0' <u>+</u>	13300'+ 10170'+ 530'+	3130 '+ 9640 '+ 530 '+	

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*yshen Ame* Stephen Smith

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## BIG EDDY UNIT NO. 90

Anticipated Formation Tops (GL 3413')

T/Salt	460 '	(+2953')
B/Salt	2,790'	(+ 623')
T/Dela. Group	3,290'	(+ 123')
T/Dela. Sand	3,350'	(+ 63')
T/Indian Draw	4,160'	(- 747')
T/Bone Springs	6,920'	(-3507')
T/Wolfcamp	10,190'	(-6777')
T/Strawn	11,495'	(-8082')
T/Atoka	11,870'	(-8457')
T/M. Morrow	12,680'	(-9267')
T/L. Morrow	13,000'	(-9587')

Stephen A Stephen Smith

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#### DRILLING PROCEDURE

#### BIG EDDY UNIT NO. 90

Location: 1980' FSL, 1980' FWL, Sec. 4, T22S, R29E.

Conductor Casing: 40'+ of 16" conductor casing will be set with a rathole mechine and cemented to the surface with ready mix.

Surface Hole: A 15" OH will be drilled to 450' + (T/Salt) and 11-3/4" casing run to total depth. The surface casing will be cemented with 400 sx Class "C" plus 2% CaCl2. Cement must be circulated to the surface.

Total WOC time is 12 hours.

<u>Nippling Up 11-3/4" Casing</u>: After waiting 4 hours, nippling up procedures may begin. A 11-3/4" SW 3000# WP x 12" 3000# RJT casinghead will be welded in place. A set of hydraulic operated pipe and blinc rams will then be installed (see BEPCO II attached) and tested to 1000 psi with the rig pump.

The results of this test must be reported in the daily driller's log.

Intermediate Hole: A 11" OH will then be drilled to 3250' (T/Delaware Mtn. Group); 8-5/8" casing will be run to total depth. The casing should be cemented in one stage as follows: Cement with + 1000 sx Halliburton Lite tailed with 150 sxs Class "C" plus 2% CaCl2. Cement must be circulated to the surface.

Total WOC time for this casing string will be 12 hours.

Nippling Up the 8-5/8" Casing: After waiting 4 hours, nippling up procedures may begin. A 12" 3000# WP x 10" 5000# WP RJT casing spool with bit guide and seal assembly will be installed.

A BOP stack consisting of hydril, pipe rams and blind rams will be installed as per BEPCO Drawing IV (attached). This BOP stack will be hydrostatically tested to 5000 psi (Hydril 1500#) by Yellow Jacket. The USGS will be notified in sufficient time to witness the testing of the 8-5/8" BOP stack. A copy of the test results will also be furnished to the USGS.

The results of this test will be recorded in the daily drillers log.

Production Hole: A 7-7/8" OH will then be drilled to TD (13,270'+). A PVT recorder, flow-show sensor and rotating head will be installed before drilling the Wolfcamp.

5-1/2" casing will be run to TD. This casing string will be cemented with 1000 sx Class "H" plus 5# KCl per sack. The cement volume should be sufficient to bring the cement top 1000' above the Wolfcamp.

Time: This well is estimated to take 57 days from spud to TD.

MUTI-POINT SURFACE USE AND OPERATY 'S PLAN
BIG EDDY UNIT NO. 90
1980' FSL, 1980' FWL
Sec. 4, T-22-S, R-29-E
Eddy County, New Mexico

This plan is submitted with the Application for Permit to Drill the above described well. The purpose of the plan is to describe the location of the proposed well, the proposed construction, activities, and operations plan, the magnitude of necessary surface disturbance involved, and the procedures to rehabilitate the surface after completion of operations so that an appraisal can be made on environmental effects.

- Existing roads including location of exit from main highway Exhibit "A" is a portion of a map showing existing road. Existing road is obtained by traveling approximately 2-1/2 miles NE of Carlsbad and turning right at the Sheriff's Posse Roping Arena. The existing road is approximately 11 miles down this road.
- 2. Planned access road <u>Exhibit "A" is a drawing of existing roads</u>. <u>The proposed</u> <u>road will be approximately 400' in length</u>. <u>The road will be constructed of</u> <u>watered and compacted caliche</u>. <u>There are no gates</u>, <u>culverts or cattle guards</u> <u>anticipated</u>.

3. Location of existing wells <u>Exhibit "A" shows surrounding existing wells</u>.

 Location of tank battery and flow lines <u>If a commercial well is obtained</u>, production facilities will be located on the well pad. Refer to Exhibit "B". 5. Location and type of water supply Fresh water will be hauled from the

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<u>City of Carlsbad</u>. Brine water will be hauled from Brine Water Station

3-1/2 miles east and 2-1/2 miles south of Carlsbad.

- 6. Source of construction material <u>Exhibit "A" shows approximate location</u> of caliche source.
- 7. Methods of handling waste disposal:

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- A. Drill cuttings will be disposed of in the drilling pits.
- B. Drilling fluids will be allowed to evaporate in the drilling pits until pits are dry.
- C. Water produced during tests will be disposed of in the drilling pits. Dil produced during tests will be stored in test tanks until sold.
- D. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- E. Trash, paper, garbage, and junk will be buried in a separate trash pit and covered with a minimum of 24 inches of dirt. All waste materials will be contained to prevent scattering by the wind. Location of trash pit is shown in Exhibit "B".
- F. Trash and debris will be buried or removed from the well site within 30 days after finishing drilling and/or completion operations. (Note: All trash left on well site to be removed or buried within 30 days must be contained to prevent scattering.)
- 8. Ancillary facilities None required

9. Well site layout Exhibit "B" shows the approximate dimensions of the well

pad and reserve pit as well as the relative location of major rig components,

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trash pit, etc. Only minor leveling of the wellsite will be required.

No significant cuts or fills will be necessary. The reserve pit will be

lined with plastic. The pit and pad area have been staked and flagged.

- 10. Plans for rester tion of surface:
  - A. Producing well all pits will be cut, filled, and leveled as soon as practical to original conditions with rehabilitation to commence following removal of drilling and completion equipment.
  - B. Dry hole same as above with dry hole marker to be installed and surface reseeded if required. At the same time of final abandonment, USGS and BLM restoration stipulations will be complied with.
  - 11. Other information:

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Α.	TerrainRelatively flat
Β.	SoilSandy
C.	Vegetation Sparse, primarily mesquire with very little grass.
D.	Surface useGrazing
Ε.	Surface water None
	•
F.	Water wells None within one mile
G.	Residences and buildings None within one mile
11.	Surface ownership The wellsite and road, are on Federal Land.
T	Wall signs posted at any dilling
	Well signs posted at each drilling site.
J.	Open pits - all pits containing liquid or mud will be fenced.
К.	Archaeological resources None observed

12. Operator's representative

(Field personnel responsible for compliance with development plan for surface use)

 DRILLING
 PRODUCTION

 Mike Cure
 Al Gallas

 Box 2760
 Box 1043

 Midland, Texas 79702
 Kermit, Texas 79745

 915-684-5723
 915-563-0656

 (or)
 Mike Cure

 Box 2760
 Midland, Texas 79702

 915-684-5723
 915-684-5723

13. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed by Bass Enterprises Production Company and its contractors and subcontractors in conformity with this plan and the terms and conditions

March 3, 1981 (Date)

Stephen &

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(Hame) Stephen Smith Engineering Assistant (Title)

CLB:gp

244.234	L Boss Program	L-1-64(2) [ L-1-64(2) 3163 34218 #80 260	Richerdson & Bass 4-1-53(2) 841356 N 4 4-2-52 132 132 132 132 132 132 132 13	13	a s	Richerdson & Bass HBP 8915
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	יי און	<del>~</del> 1.	// 1	Richardson EBess	Anderson 12-1 x4(3) 033/135 35 Meranoti	36 36

EXHIBIT "B"



### BIG EDDY UNIT #90

# Mud Program

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Interval	Туре	Mt. (Approx.)	<u>Vis.</u>	Wtr. Loss
0' - 450' <u>+</u>	Fresh Wtr.	8.4 - 8.9#	40 - 50	NC
450' <u>+</u> - 3,250' <u>+</u>	Brine Wtr.	10.0#	28 - 32	NC
3,250' <u>+</u> - 10,200' <u>+</u>	Fresh Wtr.	8.4 - 8.8#	28 - 30	NC
10,200' <u>+</u> - 11,500' <u>+</u>	Brine Wtr.	10.0#	28 - 30	NC
11,500' <u>+</u> - 11,870' <u>+</u>	Brine Wtr.	10.3#	28 - 30	NC
11,870' <u>+</u> - 12,680' <u>+</u>	Brine Wtr.	11.0#	32 - 34	15 CC
12,680' <u>+</u> - TD	Brine Wtr.	11.0#	32 - 34	10 CC

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Stephen Smith

Stephen Smith



# THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

CONDITIONS MAY BE HET BY AN ANNULAR TYPE BLOWOUT PREVENTER ON TOP AND A CHOKE SPOOL BELOW AND EITHER Α. (1) TWO RAN TYPE BLOWOUT PREVENTERS BELOW THE SPOOL, THE LOWER UNIT CONTAINING BLIND RANS AND THE UPPER UNIT CONTAININ

(2) A DUAL BLOWCUT PREVENTER BELOW THE SPOOL WITH BLIND RANS ON BOTTOM AND PIPE RAMS ON TOP.

OPENING ON CHOKE SPOOL TO BE FLANGED, STUDDLD OR CLANPED.

ALL CONNECTIONS FROM OPERATING MANIFOLDS TO PREVENTERS. TO BE ALL STEEL HOSE OR TURE A MINIMUM OF ONE INCH IN DIANETER.

THE AVAILABLE CLOSING PRESSURE SHALL BE AT LEAST 15% IN EXCESS OF THAT REQUIRED WITH SUFFICIENT VOLUME TO OPERATE THE B ĩ

ALL CONNECTIONS TO AND FROM PREVENTER TO HAVE & PRESSURE RATING EQUIVALENT TO THAT OF THE B.O.P.

NANUAL CONTROLS TO BE INSTALLED BEFORE UNILLING CEMENT FLUG.

FELLY COCK TO BE INSTALLED ON RELLY. 11.

INSIDE BLOWOUT PREVENTER TO BE AVAILABLE ON RIG FLOOR. DUAL OPERATING CONTROLS ONE LOCATED BY DHILLERS

THE OTHER LOCATED & SAFE DISTANCE FROM THE RIG FLOOR.

BEPCO IV

THREE CLOSURE HYDRAULIC BLOWOUT PREVENTERS



# THE FOLLOWING CONSTITUTE MINIMUM BLOWOUT PREVENTER REQUIREMENTS

- A. ONE DOUBLE GATE BLOWOUT PREVENTER WITH LOWER RAMS BLIND AND UPPER RAMS FOR PIPE, ALL HYDRAULICALLY CONTROLLED OPENING ON PREVENTERS BETWEEN RANS. -
- B. OPENING TO BE FLANGED, STUDDED OR CLANPED AND AT LEAST TWO INCHES DIAMETER.
- C. ALL CONNECTIONS FROM OPERATING MANIFOLD TO PREVENTERS TO BE ALL STEEL HOSE OR TUBE A MINIMUM OF ONE INCH IN DIAMETER.
- D. THE AVAILABLE CLOSING PRESSURE SHALL BE AT LEAST 15% IN EXCESS OF THAT REQUIRED WITH SUFFICIENT VOLUNE TO OPERATE, THE PREVENTERS.
- E. ALL CONNECTIONS TO AND FROM PREVENTERS TO HAVE A PRESSURE RATING EQUIVALENT TO THAT OF THE B.O.P.L.
- F. NANUAL CONTROLS TO BE INSTALLED BEFORE DRILLING CENENT PLUG. -
- G. VALVE TO CONTROL FLOW THROUGH DRILL PIPE TO BE LOCATED ON RIG FLOOR.
- H. CHOKE HAY BE EITHER POSITIVE OR ADJUSTABLE. Choke spool may be used between rams.

BEPCO II

ONE HYDRAULIC DUAL BLOWOUT PREVENTER