Form 3160-3	05262/2820	3	: 면 첫 약 ;	Oll SUBMIT IN	RIPI :	FORM APPROVED / CF
(July 1992)	15262728293QINI	TED STATE	S ₁.∃(Other instr	uction1	OMB NO. 1004-0136 Expires: February 28, 1995
\N	P DEPARTMEN	T OF THE I	INTE	RIOR IS NOT	0004s	5. LEASE DESIGNATION AND SERIAL NO.
212	DR LEUREAU DI			• •	00< 11	NM-10-3-8 /0 4//
APP	LICATION FOR	ERMIT TO	DRIL	L OR DEEPEN		6. IF INDIAN, ALLOTTEE OR TRIBE NAME
IR. TYPE OF WORKS	W. W.	/				
b. TYPE OF WELL	RILO X	DEEPEN				7. UNIT AGREEMENT NAME 97117
OIL O	WELLD TINGTHER	149678		NGLE MULTI	PLE [8. FARM OR LEASE NAME, WELL NO.
2. NAME OF OPERATOR KUKUI OPERA	TING COMPANY	(LARRY ST	TRIDE	R 915-687-6200)	SARGENT CANYON "31" FEDERAL
3. ADORESS AND TELEPHONE N 203 WEST WAI	LL SUITE 810 MI	DLAND, TEXAS	 S 797	01 (915-687-62)	00)	30-015.32277
4. LOCATION OF WELL (Report location clearly and					10. FIELD AND POOL, OR WILDCAT UNDESIGNATED-MORROW
At surface	965' FEL SEC. 31			DY CO. NM 1/	4	11. ERC., T., R., M., OR BLE
At proposed prod. ze		. 1190 K212		1 00. III W	, 1	SEC. 31 T19S-R21E
14 DICTINCE IN WILES	AND DIRECTION FROM NEA	celled (-a ng	en: Arcka- M	expew	
	y 18 miles South			w Mexico		12. COUNTY OF PARISH 13. STATE EDDY CO. NEW MEXICO
15. DISTANCE FROM PRO- LOCATION TO NEARE	PUSED*		· 	. OF ACRES IN LEASE		OF ACRES ASSIGNED
PROPERTY OR LEASE		965'		640	TOT	HIB WELL 320
18. DISTANCE FROM PRO	POSED LOCATION* DRILLING, COMPLETED.			POSED DEPTH	20. ROTA	RY OR CABLE TOULS
OR APPLIED FOR, ON T	hether DF, RT, GR, etc.)	000'	74	400 '	RO	TARY
21. ELEVATIONS (Show W		472' GR.				22. APPROX. DATE WORK WILL START* WHEN APPROVED
23.			VC AND	CENENAMO DECENT		WHEN AFFROVED
SIZE OF HOLE	GRADE, SIZE OF CASING			CEMENTING PROGRA	M1	
20"	Conductor	WEIGHT PER FO	<u>or</u>	SETTING DEPTH	Comont	QUANTITY OF CEMENT
12½"	J-55 9 5/8"	36		1220 1375	1	to surface with Redi-mix Circulate cement to surface
8 3/4"	J-55 5½"	17		7400'		x. Estimate TOC 1000'
1. Drill 2	20" hole to 40'.	Set 40' of	14"	conductor pipe	and c	Controlled Water Basin ement to surface with Redi-
		1375		1375		
	11 12½" hole to	1220'. Run	and		E /011	26# T EE CMCO
2. Air dri	TOOC. 3 C.		••	set 1220' of 9	2/6	30# J-33 Si&C casing.
Cement	with 720ft of	9.0#/Gal Cla	ass "	C" foam cement	(1150'	of fill $+ 100\%$ excess).
Cement tail in	with 720ft ³ of ! with 188ft ³ (38	9.0#/Gal Cla 00' of fill	ass " +100	C" foam cement % excess) of C	(1150' lass "	of fill + 100% excess), C" cement + 2% CaCl. If
Cement tail in cement with an	with 720ft ³ of 1 with 188ft ³ (30 does not circula additional 200	9.0#/Ga1 Cla DO' of fill ate, immedia Et ³ of 9#/Ga	ass " +100 ately	C" foam cement % excess) of C cement annalu	(1150' lass " s thro	of fill + 100% excess), C" cement + 2% CaCl. If ugh 13 5/8" casing head
Cement tail in cement with an	with 720ft ³ of 1 with 188ft ³ (30 does not circula	9.0#/Ga1 Cla DO' of fill ate, immedia Et ³ of 9#/Ga	ass " +100 ately	C" foam cement % excess) of C cement annalu	(1150' lass " s thro	of fill + 100% excess), C" cement + 2% CaCl. If
Cement tail in cement with an Class "	with 720ft ³ of 9 with 188ft ³ (30 does not circula additional 2006 C" cement + 2% (9.0#/Gal Cla 00' of fill ate, immedia Et ³ of 9#/Ga CaCl.	ass " +100 ately al Cl	C" foam cement % excess) of C cement annalu ass "C" foam c	(1150' lass " s thro ement a	of fill + 100% excess), C" cement + 2% CaCl. If ugh 13 5/8" casing head and cap with 50 Sx. of
tail in cement with an Class "	with 720ft ³ of 9 with 188ft ³ (30 does not circula additional 2009 C" cement + 2% (3/4" hole to 74	9.0#/Gal Cla 00' of fill ate, immedia Et ³ of 9#/Ga CaCl. 400'. Run ar	ass " +100 ately al Cl	C" foam cement & excess) of C cement annaluass "C" foam c	(1150' lass "6 s throsement a	of fill + 100% excess), C" cement + 2% CaCl. If ugh 13 5/8" casing head and cap with 50 Sx. of
tail in cement with an Class "	with 720ft ³ of 10 with 188ft ³ (30 does not circular additional 200 C'' cement + 2% (3/4" hole to 74 00 Sx, of 50/50	9.0#/Gal Cla 00' of fill ate, immedia Et ³ of 9#/Ga CaCl. 400'. Run ar	ass " +100 ately al Cl	C" foam cement & excess) of C cement annaluass "C" foam c	(1150' lass "6 s throsement a	of fill + 100% excess), C" cement + 2% CaCl. If ugh 13 5/8" casing head and cap with 50 Sx. of
Cement tail in cement with an Class " 3. Drill 8 with 10 form su	with 720ft ³ of 10 with 188ft ³ (30 does not circular additional 200 C'' cement + 2% (3/4" hole to 7/4 00 Sx. of 50/50 rface.	9.0#/Gal Cla 00' of fill ate, immedia Et ³ of 9#/Ga CaCl. 400'. Run ar POZ Class'	ass " +100 ately al Cl	C" foam cement & excess) of C cement annaluass "C" foam c t 7400' of 5½" ement + additi	(1150' lass "G s throwent a not proposed	of fill + 100% excess), C" cement + 2% CaCl. If ugh 13 5/8" casing head and cap with 50 Sx. of -80 LT&C casing. Cement stimate top of cement
Cement tail in cement with an Class " 3. Drill 8 with 10 form su ABOVE SPACE DESCRIB	with 720ft ³ of 9 with 188ft ³ (30 does not circula additional 2009 C" cement + 2% (3/4" hole to 74 00 Sx, of 50/50 rface.	9.0#/Gal Cla 00' of fill ate, immedia Et ³ of 9#/Ga CaCl. 400'. Run ar POZ Class'	ass " +100 ately al Cl	C" foam cement & excess) of C cement annaluass "C" foam c t 7400' of 5½" ement + additi	(1150' lass "G s throwent a not proposed	of fill + 100% excess), C" cement + 2% CaCl. If ugh 13 5/8" casing head and cap with 50 Sx. of -80 LT&C casing. Cement stimate top of cement
Cement tail in cement with an Class " 3. Drill 8 with 10 form su ABOVE SPACE DESCRIB	with 720ft ³ of 10 with 188ft ³ (30 does not circular additional 200 C'' cement + 2% (3/4" hole to 7/4 00 Sx. of 50/50 rface.	9.0#/Gal Cla 00' of fill ate, immedia Et ³ of 9#/Ga CaCl. 400'. Run ar POZ Class' roposalis to deepen, gis and measured and true	ass " +100 ately al Cl nd se "C" co	C" foam cement & excess) of C cement annaluass "C" foam c t 7400' of 5½" ement + additi	(1150' lass "G s throwent a not proposed	of fill + 100% excess), C" cement + 2% CaCl. If ugh 13 5/8" casing head and cap with 50 Sx. of -80 LT&C casing. Cement stimate top of cement new productive zone. If proposal is to drill or if any.
Cement tail in cement with an Class " 3. Drill 8 with 10 form su NABOVE SPACE DESCRIB	with 720ft ³ of 10 with 188ft ³ (30 does not circulate additional 2000 C" cement + 2% (30 Sx. of 50/50 rface. EPROPOSED PROGRAM: If prent data on subsurface locations	9.0#/Gal Cla 00' of fill ate, immedia Et ³ of 9#/Ga CaCl. 400'. Run ar POZ Class'	ass " +100 ately al Cl nd se "C" co	C" foam cement & excess) of C cement annaluass "C" foam c t 7400' of 5½" ement + additi	(1150' lass "G s throwent a not proposed	of fill + 100% excess), C" cement + 2% CaCl. If ugh 13 5/8" casing head and cap with 50 Sx. of -80 LT&C casing. Cement stimate top of cement
Cement tail in cement with an Class " 3. Drill 8 with 10 form su NABOVE SPACE DESCRIB	with 720ft ³ of 10 with 188ft ³ (30 does not circular additional 2000 C" cement + 2% (3/4" hole to 74 00 Sx. of 50/50 rface. EPROPOSED PROGRAM: If princent data on subsurface locations	9.0#/Gal Cla 00' of fill ate, immedia Et ³ of 9#/Ga CaCl. 400'. Run ar POZ Class' roposalis to deepen, gis and measured and true	ass " +100 ately al Cl nd se "C" co	C" foam cement % excess) of C cement annalu ass "C" foam c t 7400' of 5½" ement + additi n present productive zone a depths. Give blowout preven	(1150' lass "Cast start	of fill + 100% excess), C" cement + 2% CaCl. If ugh 13 5/8" casing head and cap with 50 Sx. of -80 LT&C casing. Cement stimate top of cement new productive zone. If proposal is to drill or if any. DATE 03/28/02
Cement tail in cement with an Class " 3. Drill 8 with 10 form su NABOVE SPACE DESCRIB Expen directionally, give period (This space for Fede	with 720ft ³ of 19 with 188ft ³ (30 does not circulate additional 2000 C" cement + 2% (3/4" hole to 74 00 Sx. of 50/50 rface. EPROPOSED PROGRAM: If present data on subsurface locations of the state office use)	9.0#/Gal Cla 00' of fill ate, immedia Et ³ of 9#/Ga CaCl. 400'. Run ar POZ Class' roposal is to deepen, gi s and measured and true	ass " +100 ately al Cl nd se "C" co ive data on e vertical of	C" foam cement % excess) of C cement annalu ass "C" foam c t 7400' of 5½" ement + additi n present productive zone a depths. Give blowout preven gent APPROV	(1150' lass "os thrower the state of the sta	of fill + 100% excess), C" cement + 2% CaCl. If ugh 13 5/8" casing head and cap with 50 Sx. of -80 LT&C casing. Cement stimate top of cement new productive zone. If proposal is to drill or if any. DATE 03/28/02 BJECT TO UNEMENTS AND
Cement tail in cement with an Class 3. Drill 8 with 10 form su ABOVE SPACE DESCRIB Expendirectionally, give period (This space for Fede	with 720ft ³ of 12 with 188ft ³ (30 does not circulate additional 2000 C" cement + 2% (30 Sx. of 50/50 rface. E PROPOSED PROGRAM: If prent data on subsurface locations are subsurface locations of the subsurface locations are subsurface locations of the subsurface locations are subsurface locations are subsurface locations are subsurface locations are subsurface locations.	9.0#/Gal Cla 200' of fill ate, immedia Et ³ of 9#/Ga CaCl. 400'. Run ar POZ Class' roposal is to deepen, gi s and measured and true TITLE	ass " +100 ately al Cl nd se "C" co ive data on e vertical of	C" foam cement % excess) of C cement annalu ass "C" foam c t 7400' of 5½" ement + additi n present productive zone a depths. Give blowout preven gent APPROV PPROVAL DATGENER to those rights iSPECIA	(1150' lass " s thrower ement a .17# Noves, es and proposed ter program, in AL SU AL REQ L.STIP:	of fill + 100% excess), C" cement + 2% CaCl. If ugh 13 5/8" casing head and cap with 50 Sx. of -80 LT&C casing. Cement stimate top of cement new productive zone. If proposal is to drill or if any. DATE 03/28/02 BJECT TO
Cement tail in cement with an Class " 3. Drill 8 with 10 form su NABOVE SPACE DESCRIB Expen directionally, give period (This space for Fede	with 720ft ³ of 12 with 188ft ³ (30 does not circulate additional 2000 C" cement + 2% (30 Sx. of 50/50 rface. E PROPOSED PROGRAM: If prent data on subsurface locations are subsurface locations of the subsurface locations are subsurface locations of the subsurface locations are subsurface locations are subsurface locations are subsurface locations are subsurface locations.	9.0#/Gal Cla 200' of fill ate, immedia Et ³ of 9#/Ga CaCl. 400'. Run ar POZ Class' roposal is to deepen, gi s and measured and true TITLE	ass " +100 ately al Cl nd se "C" co ive data on e vertical of	C" foam cement % excess) of C cement annalu ass "C" foam c t 7400' of 5½" ement + additi n present productive zone a depths. Give blowout preven gent APPROV	(1150' lass " s thrower ement a .17# Noves, es and proposed ter program, in AL SU AL REQ L.STIP:	of fill + 100% excess), C" cement + 2% CaCl. If ugh 13 5/8" casing head and cap with 50 Sx. of -80 LT&C casing. Cement stimate top of cement new productive zone. If proposal is to drill or if any. DATE 03/28/02 BJECT TO UNEMENTS AND
Cement tail in cement with an Class 3. Drill 8 with 10 form su ABOVE SPACE DESCRIB Expendirectionally, give period (This space for Fede	with 720ft ³ of 12 with 188ft ³ (30 does not circulate additional 2000 C" cement + 2% (30 Sx. of 50/50 rface. E PROPOSED PROGRAM: If prent data on subsurface locations are subsurface locations of the subsurface locations are subsurface locations of the subsurface locations are subsurface locations are subsurface locations are subsurface locations are subsurface locations.	9.0#/Gal Class of fill ate, immediate, immediate, immediates of 9#/GaCaCl. 400'. Run are POZ Class' roposal is to deepen, gis and measured and true true. TITLE	ass " +100 ately al Cl nd se "C" co ive data on e vertical of	C" foam cement % excess) of C cement annalu ass "C" foam c t 7400' of 5½" ement + additi n present productive zone a depths. Give blowout preven gent APPROV PPROVAL DATGENER to those rights iSPECIA	(1150' lass "os thrower the state of the sta	of fill + 100% excess), C" cement + 2% CaCl. If ugh 13 5/8" casing head and cap with 50 Sx. of -80 LT&C casing. Cement stimate top of cement new productive zone. If proposal is to drill or if any. DATE 03/28/02 BJECT TO UNITED TS AND

Title 18 U.S.C. Section 1001, makes 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.

2007 UP 2 S 3 V 8: 25

BECEINED

19 DE 6. 1 YEA

State of New Mexico

DISTRICT I P-O. Box 1980, Hobbs, NM 88241-1980

Energy, Minerals and Natural Resources Department

Form C-102 Revised February 10, 1994

DISTRICT II P.O. Drawer DD, Artesia, NM 88211-0719 OIL CONSERVATION DIVISION Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

P.O. Box 2088 Santa Fe, New Mexico 87504-2088

DISTRICT IV P.O. BOX 2088, SANTA FE, N.M. 87504-2088

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number	Pool Code Pool UNDESIGNATED-	l Name MORROW
Property Code	Property Name SARGENT CANYON 31 FEDERAL	Well Number
0GRID No. 49678	Operator Name KUKUI OPERATING COMPANY	Elevation 4472'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Н	31	19-S	21-E		1775	NORTH	965	EAST	EDDY

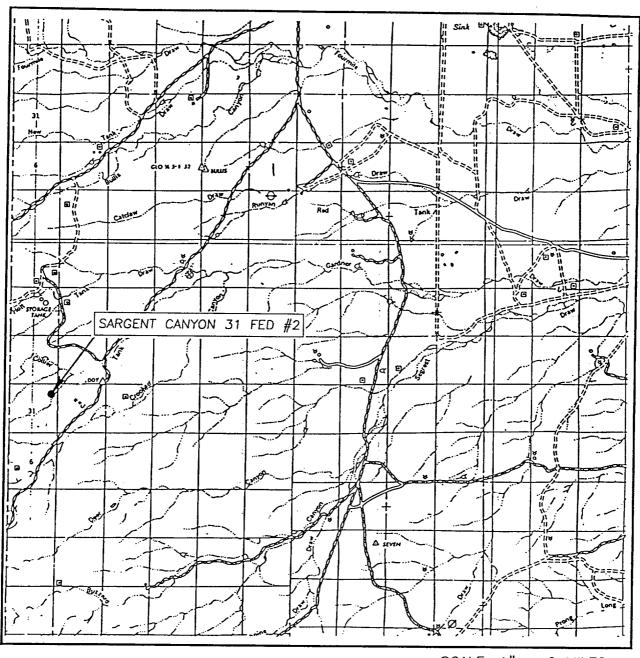
Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint o	r Infill Co	nsolidation	Code Or	der No.				<u> </u>

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED

OR A NON-STAN	DARD UNIT HAS BEEN APPROVED BY THE	HE DIVISION
SPC NME	4501.4' 4462.6' 4465.3' 4481.8'	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief. Signature Joe T. Janica Printed Name Agent Title 03/28/02 Date SURVEYOR CERTIFICATION
NAD 1927 Y = 589339.5 X = 347885.5 LAT.= 32'37'09.21"N LONG.= 104'49'38.57"W		I hereby certify that the well location shown on this plat was plotted from field nates of actual surveys made by me or under my supervison and that the same is true and correct to the best of my belief. MARCH 16, 2002
	8605/1980°	Date Surveyed Signature & Seal of Professional Surveyor Dark Sulm 3/19/02 02/1020
	Sargeni Canyon '31' Federal	Certificate No. RONALE : EIDSON 3239 OARY EIDSON 12641

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 31 TWP. 19-S RGE. 21-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 1775' FNL & 965' FEL

ELEVATION 4472'

OPERATOR KUKUI OPERATING COMPANY

LEASE SARGENT CAYON 31 FEDERAL

JOHN WEST SURVEYING HOBBS, NEW MEXICO (505) 393-3117



LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 20' STRYCHNINE DRAW, N.M.

SEC. 31 TWP. 19-S RGE	E. 21-E
SURVEYN:M.P.M.	
COUNTYEDDY	
DESCRIPTION 1775' FNL &	
ELEVATION 4472	
OPERATOR KUKUI OPERATIN	NG COMPANY
LEASE SARGENT CAYON 3	31 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP STRYCHNINE DRAW, N.M.

JOHN WEST SURVEYING HOBBS, NEW MEXICO (505) 393-3117

APPLICATION TO DRILL

KUKUI OPERATING COMPANY
SARGENT CANYON "31" FEDERAL # 2
UNIT "H" SECTION 31
T19S-R21E EDDY CO. NM

In response to questions asked under Section II B of Bulletin NTL-6 the following information is provided for your consideration:

- 1. Location: 1775' FNL & 965' FEL SEC. 31 T19S-R21E EDDY CO. NM
- 2. Elevation above sea level: 4472' GR.
- 3. Geologic name of surface formation:
- 4. <u>Drilling tools and associated equipment:</u> Conventional rotary drilling rig using fluid as a circulating medium for solids removal.
- 5. Proposed drilling depth: 7400'
- 6. Estimated tops of geological markers:

San Andres	1240'	Canyon	6140'
Tubb	2610 '	Strawn	66001
Wolfcamp	4330	Atoka	6800 '
Cisco	5640 '	Morrow Clastics	7010'

7. Possible mineral bearing formation:

Cisco-CAnyon Gas Morrow Gas

Strawn Gas

Atoka Gas

8. Casing program:

Hole size	<u>Interval</u>	OD casing	Weight	Thread	<u>Collar</u>	Grade
20".	0-40'	14"	NA	NA	NA	Conductor
12½"	0-1220	9 5/8"	36	8-R	ST&C	J-55
8 3/4"	0-7400	5½''	17	8-R	LT&C	J-55

APPLICATION TO DRILL

KUKUI OPERATING COMPANY
SARGENT CANYON "31" FEDERAL # 2
UNIT "H" SECTION 31
T19S-R21E EDDY CO. NM

9. CEMENTING & SETTING DEPTH:

14"	Conductor	Set 40' of 14" conductor pipe and cement to surface with Redi-mix.
9 5/8''	Surface	Set 1220' of 9 5/8" 36# J-55 ST&C casing. Cement with 720ft ³ of 9.0#/Gal Class "C" foam cement, tail in with 188ft ³ of Class "C" cement + 2% CaCl, if cement does not circulate, immediately cement annalus through 13 3/8" casing head with 200ft ³ of 9#/Gal Class "C" foam cement and cap with 50 Sx. of Class "C" + 2% CaCl. Initial cementing is 100% excess.
5½"	Production .	Set 7400' of $5\frac{1}{2}$ " 17# N-80 LT&C casing. Cement with 600 Sx of light weight cement + additives, tail in with 400 Sx of Class "H" 50/50 POZ + additives estimate top of cement 1000' from surface. Top of cement must be at least 500' above any potential pay zone.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 Series 3000 PSI working pressure B.O.P. consisting f an annular bag type preventor, middle blind rams and bottom pipe rams. The B.O.P. will be nippled up on the 9 5/8" casing and tested to API specifications. The B.O.P. will be operated at least once in each 24 hour period and the blind rams will be operated when drill pipe is out of hole on trips. Full opening stabbing valve and upper kelly cock will be utilized. Exhibit "E-1" shows a hydraulically operated closing unit and a 2" 3000 PSI choke manifold with dual adjustable chokes. No abnormal pressures or temperatures are expected.

11. PROPOSED MUD CIRCULATING SYSTEM:

DEPTH .	MUD WT.	VISC.	FLUID LOS	S. TYPE MUD SYSTEM
1375 / 40-12 20	8.4-8.8	29-34	NC -	Fresh water Spud mud, use paper to control seepage & high viscosity sweeps to clean hole.
/375 1 220 -7400'	8.4-9.5	29-38	NC*	Cut Brine system use paper to control seepage and high viscosity sweeps to clean hole.

^{*} If water loss is needed mud up with a Polymer system to control water loss.

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks. In order to run DST's, open hole logs, and casing viscosity and/or water loss may have to be adjusted to meet these needs.

APPLICATION TO DRILL

KUKUI OPERATING COMPANY
SARGENT CANYON "31" FEDERAL # 2
UNIT "H" SECTION 31
T19S-R21E EDDY CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

- A. OPen hole logs: Dual Laterolog, CNL, LDT, Gamma Ray, Caliper from TD Surface casing shoe. GAmm Ray, Neutron from 1220' (surface casing shoe) to surface.
- B. Put on mud logger on hole 500' above the top of San Andres.
- C. DST's and cores taken as directed by Geologist.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of $\mathrm{H}^2\mathrm{S}$ in this area. If $\mathrm{H}^2\mathrm{S}$ is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. No lost circulation is expected to occur. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 4000 PSI, and Estimated BHT $140\pm^\circ$

14. ANTICIPATED STARTING DATE AND DURATION OF OPERATION:

Road and location construction will begin after the BLM has approved the APD. Anticipated spud date will be as soon after BLM approval and as soon as a rig will be available. Move in operation and drilling is expected to take 28 days. If production casing is run then an additional 30 days will be needed to complete well and construct surface facilities and/or lay flowlines in order to place well on production.

15. OTHER FACETS OF OPERATIONS:

After running casing, cased hole Gamma Ray, Neutron Collar logs will be run from TD back to all possible productive zones. The Morrow formation will be perforated and stimulated in order to establish production. The well will be swab tested and potentialed as a gas well.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

- 1. All Company and Contract personnel admitted on location must be trained by a qualified H_2S safety instructor to the following:
 - A. Characteristics of HoS
 - B. Physical effects and hazzards
 - C. Proper use of safety equipment and life support systems.
 - D. Principle and operation of H2S detectors, warning system and briefing areas.
 - E. Evacuation procedure, routes and first aid.
 - F. Proper use of 30 minute pressure demand air pack.
- 2. H₂S Detection and Alarm Systems
 - A. H₂S detectors and audio alarm system to be located at bell nipple, end of blooie line (mud pit) and on derrick floor or doghouse.
- 3. Windsock and/or wind streamers
 - A. Windsock at mudpit area should be high enough to be visible.
 - B. Windsock at briefing area should be high enough to be visible.
 - C. There should be a windsock at entrance to location.
- 4. Condition Flags and Signs
 - A. Warning sign on access road to location.
 - B. Flags to be displayed on sign at entrance to location. Green flag, normal safe condition. Yellow flag indicates potential pressure and danger. Red flag, danger, H₂S present in dangerous concentration. Only emergency personnel admitted to location.
- 5. Well control equipment
 - A. See exhibit "E"
- 6. Communication
 - A. While working under masks chalkboards will be used for communication.
 - B. Hand signals will be used where chalk board is inappropriate.
 - C. Two way radio will be used to communicate off location in case of emergency help is required. In most cases cellular telephoned will be available at most drilling foreman's trailer or living quarters.
- 7. Drillstem Testing
 - A. Exhausts will be watered.
 - B. Flare line will be equipped with an electric ignitor or a propane pilot light in case gas reaches the surface.
 - C. If location is near any dwelling a closed D.S.T. will be performed.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

- 8. Drilling contractor supervisor will be required to be familiar with the effects $\rm H_2S$ has on tubular goods and other mechanical equipment.
- 9. If $\rm H_2S$ is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas seperator will be brought into service along with $\rm H_2S$ scavengers if necessary.

- 1. EXISTING ROADS: Area maps, Exhibit "B" is a reproduction of a County General Hi-way Map. Exhibit "C" is a reproduction of a USGS Topographic map, showing existing and proposed roads. All existing roads will be maintained in a condition equal to or better than current conditions. Any new roads will be constructed to BLM specifications.
 - A. Exhibit "A" shows the location of the proposed well site as staked.
 - B. From Hope New Mexico take Co. Road 12 (Armstrong Road) South go 7 miles to Co. Road 20 (Bronco Road) go 7.1 miles to turn off to Left follow road 1.3 miles bear Left Northwest go .25 miles to loaation on the Right.
 - C. Connect flowline to existing flow line on pipeline R-O-W.
- 2. PLANNED ACCESS ROADS: Approximately 1.5 miles to new road will be constructed.
 - A. The access road will be crowned and ditched to a 12' wide traveled surface with a 40' Right-of-Way.
 - B. Gradient on all roads will be less than 5% if possible.
 - C. Turn-outs will be constructed where necessary.
 - D. If needed the roads will be surfaced to the BLM requirements with material obtained from from a local source.
 - E. Center line for the new access road will be flagged.
 - F. The road will be constructed to utilize low water crossings where drainage currently exist, and Culverts will be installed where necessary.
- 3. EXHIBIT "A-1" SHOWS WELLS AND DRY HOLES WITHIN A-1 MILE RAIDUS.
 - A. Water wells None known
- B. Disposal wells None known
 - C. Drilling wells None known
 - D. Producing wells As shown on Exhibit "A-1"
 - E. Abandoned wells As shown on Exhibit "A-1"

KUKUI OPERATING COMPANY
SARGENT CANYON "31" FEDERAL # 2
UNIT "H" SECTION 31
T19S-R21E EDDY CO. NM

4. If on completion this well is a producer the operator will lay pipelines and construct powerlines along existing road R-0-W's or other existing R-0-W's. Possible routes of pipelines, flowlines and powerlines are shown on Exhibit "F".

5. LOCATION AND TYPE OF WATER SUPPLY:

Water will be purchased locally from a commercial source and trucked over the access roads or piped to location in flexible lines laid on top of the ground.

6. SOURCE OF CONSTRUCTION MATERIAL:

If possible construction material will be obtained from the excavation of drill site, if additional material is needed it will be obtained from a local source and transported over the access roads as shown on Exhibit "C".

7. METHODS OF HANDLING WASTE MATERIAL:

- A. Drill cuttings will be disposed of in the reserve pits.
- B. All trash, junk and other waste material will be contained in trash cages or trash bins to prevent scattering. When the job is completed all contents will be removed and disposed of in a approved sanitary land fill.
- C. Salts remaining after completion of well will be picked up by the supplier, including broken sacks.
- D. Waste water from living quaters will be drained into holes with a minium of 10'. These holes will be covered during drilling and will be back filled when the well is completed. A Porto-John will be provided for the rig crews. This equipment will be properly maintained during the drilling and completion operations and will be removed when all operations are complete.
- E. Remaining drilling fluids will be allowed to evaporate in the reserve pits until the pits are dry enough to be broken out for furthed drying. If the drilling fluids do not evaporate in a reasonable time they will be hauled off by transports to a state approve disposal site. Later pips will be broken out to speed drying. Water produced during completion will be put in reserve pits. Oil and condensate produced will be put in storage tanks and sold.

8. ANCILLARY FACILITIES:

A. No camps or air strips will be constructed on location.

KUKUI OPERATING COMPANY
SARGENT CANYON "31" FEDERAL # 2
UNIT "H" SECTION 31
T19S-R21E EDDY CO. NM

9. WELL SITE LAYOUT

- A. Exhibit "D" shows the proposed well site layout.
- B. This exhibit indicated proposed location of reserve and sump pits and living facilities.
- C. Mud pits in the active circulating system will be steel pits & the reserve pit is proposed to be unlined unless subsurface condition encountered during pit construction indicate that lining is needed for lateral containment of fluids.
- D. If needed, the reserve pit is to be lined with polyethelene. The pit liner will be 6 mils thick. Pit liner will extend a minimum 2'00" over the reserve pits dikes where the liner will be anchored down.
- E. The reserve pit will be fenced on three sides with four strands of barbed wire during drilling and completion phases. The fourth side will be fenced after all drilling operations have ceased. If the well is a producer, the reserve pit fence will be torn down. The reserve pit and those areas of the location not essential to production facilities will be reclaimed and seeded per BLM requirements.

10. PLANS FOR RESTORATION OF SURFACE

Rehabilitation of the location and reserve pit will start in a timely manner after all drilling operations cease. The type of reclamation will depend on whether the well is a producer or a dry hole.

However, in either event, the reserve pit will be allowed to dry properly, and fluid removed and disposed of in accordance with Article 7.B as previously noted. The pit area will then be leveled and contoured to conform to the original and surrounding area. Drainage systems, if any, will be reshaped to the original configuration with provisions made to alleviate erosion. These may need to be modified in certain circumstances to prevent inundation of the location's pad and surface facilities. After the area has been shaped and contoured, topsoil from the spoil pile will be placed over the disturbed area to the extent possible. Revegetation procedures will comply with BLM standards.

If the well is a dry hole, the pad and road area will be contoured to match the existing terrain. Topsoil will be spread to the extent possible. Revegetation will comply with BLM standards.

Should the well be a producer, the previously noted procedures will apply to those areas which are not required for production facilities.

KUKUI OPERATING COMPANY
SARGENT CANYON "31" FEDERAL # 2
UNIT "H" SECTION 31
T19S-R21E EDDY CO. NM

11. OTHER INFORMATION:

- A. Topography consists of low Limestone hills with broad level drainages, soils are shallow eolian sands overlying bed rock Liimestone on the uplands and deep rocky soils in the drainages. Vegetation consists of yucca, cholla, and little leaf sumac.
- B. The surface and minerals are owned by The U.S. Department of Interior and is administered by The Bureau of Land Management. The surface of the land is used by ranchers to graze livestock and by oil companies to produce oil and gas.
- C. An archaeological survey will be conducted on the access roads and location then filed in the Bureau of Land Management field office in CArlsbad New
- D. There is a ranch house approximately .6 miles Southeast of location

12. OPERATORS REPRESENTIVE:

BEFORE CONSTRUCTION:

TIERRA EXPLORATION, INC. P.O. BOX 2188 HOBBS, NEW MEXICO 88241 OFFICE PHONE 505-391-8503 JOE T. JANICA

DURING AND AFTER CONSTRUCTION:

KUKUI OPERATING COMPANY 203 WEST WALL SUITE 810 MIDLAND, TEXAS 79701 OFFICE PHONE 915-687-6200 LARRY STRIDER

13. CERTIFICATION: I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route and that I am familiar with the conditions that currently exist, that the statements made in this plan are to the best of my knowledge are true and correct. The work associated with the operations proposed herein will be performed by KUKUI OPERATING COMPANY, it's contractors/subcontractors is in conformity with this plan and the terms and conditions under which it is approved. This statement is subject to the provision of U.S.C. 1001 for the filing of a false statement.

NAME :

: Joe T. Janica

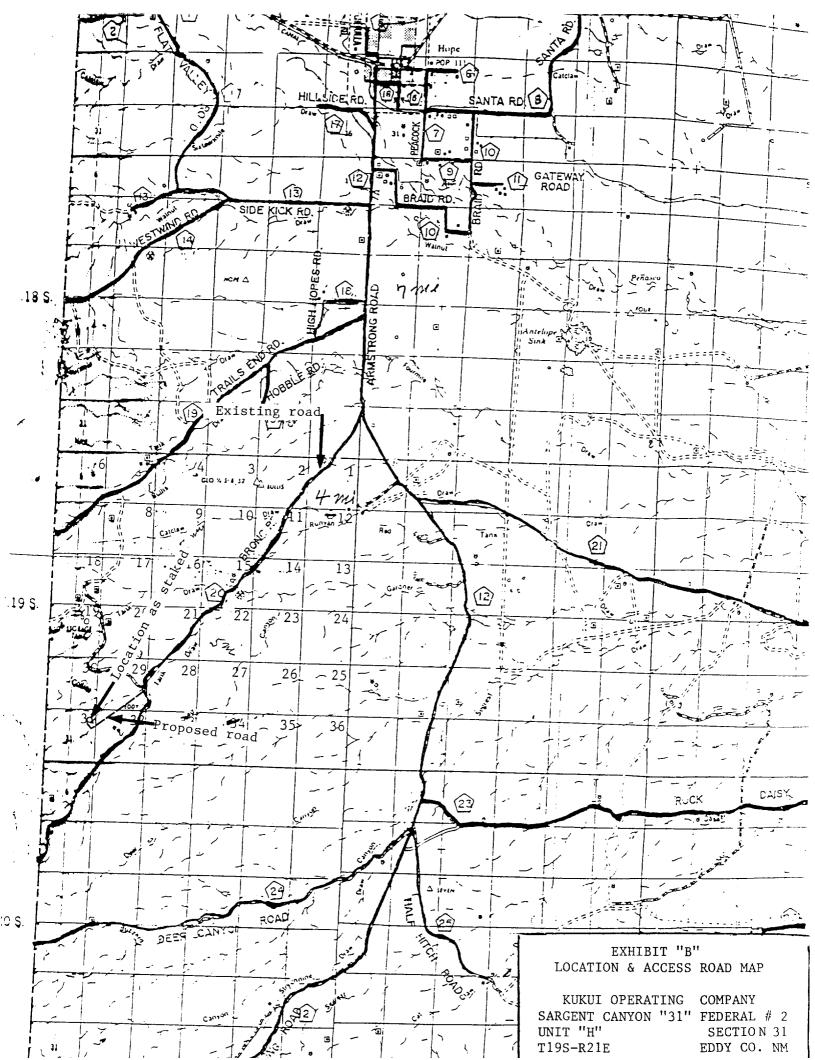
TITLE

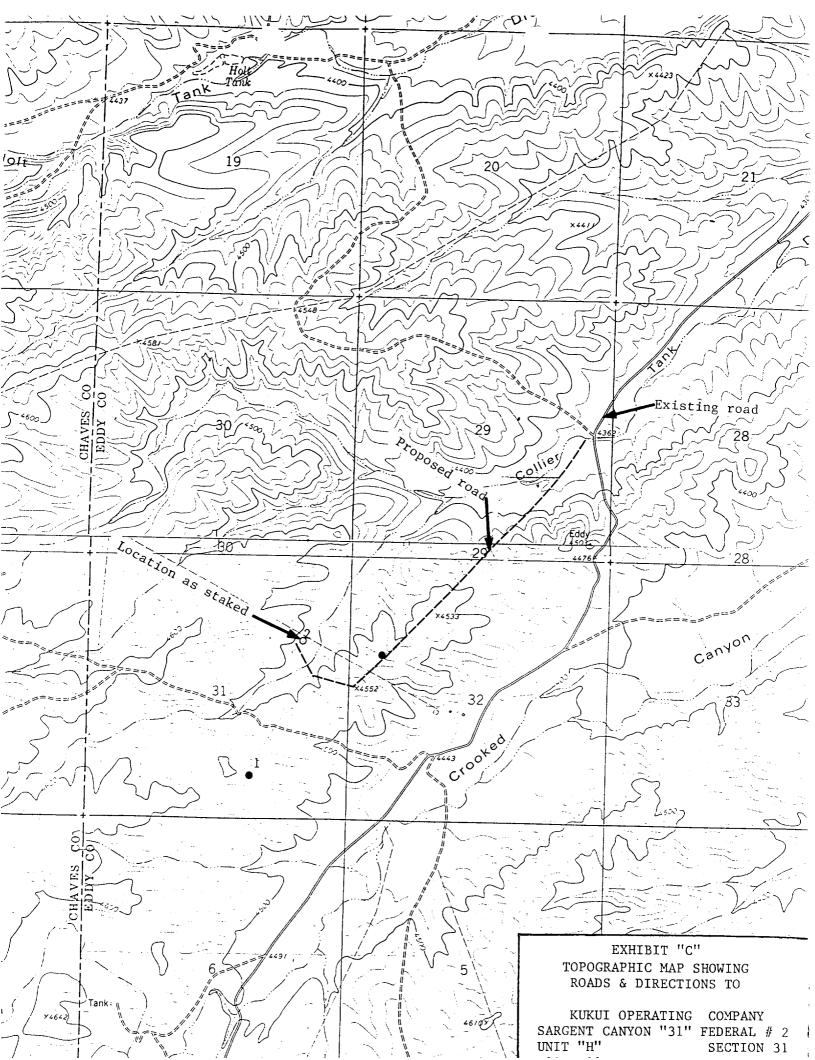
: Agent

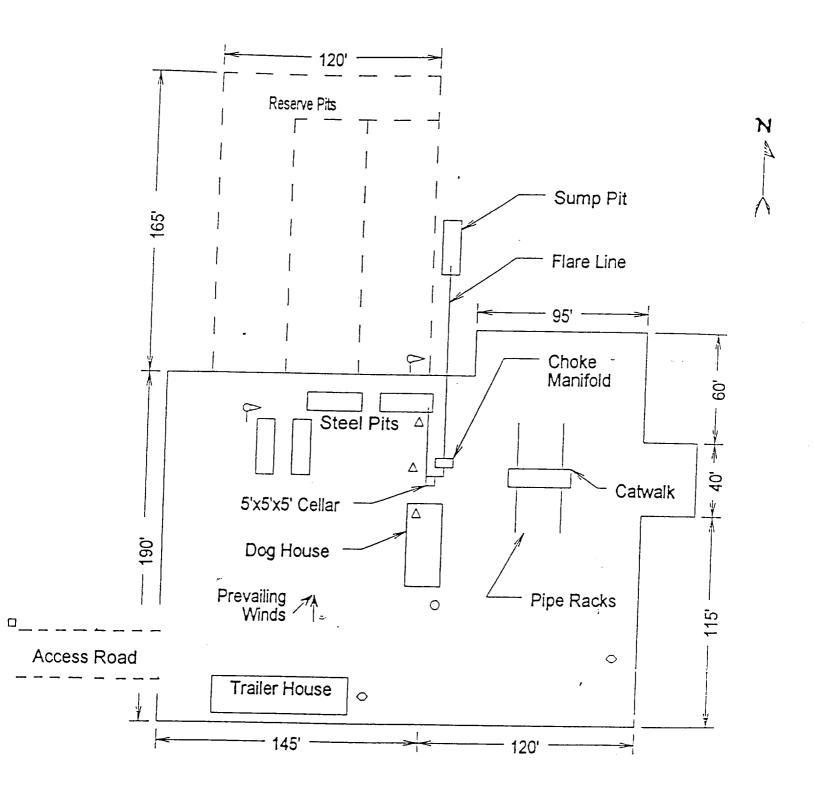
DATE

03/28/02

	11		1 1 1.	Yates Pet, etal	Yates Pet. etal	<u> </u>	+ :
	4	<u>ச</u> ு ர 6		76904 200 .Teel	3 1200.	l	1400rburg 6 1 - 2007 98791 1520
	-	30 Ti			MIDLAND & MA		
	П	u.s.		1079 U.S.	us.	State	U S.
	-	Yates Pet_stal 6: 1: 20:0 8	The Allar Co., et al. 6-1 2010 104616 53	The Allor Ca etal Yates Pet. 6. 1.2010 3 . 1.201 10.201 10.5852 80.00	tal Echo Prod. 3 - 1 - 2011 105855 90 92	Nearburg 6 · 1 · 2007 9879 1522	Neorburg 9-1-2007 9-15-00 Arrown 3-19 15-00 Arrown 4cm
	1	յլ 7 ® ^{լ.AK}	8	9	ю	11	0'4 10. 21. ()
		Cit.5erv Cit.5erv Aba Disc. Cit.13 80 Pig 5:26-86	·				12
	70.0	U.S. Yates Pet. et al	u.s.	U.Š.	U. S.	U. g .	μς.
	71.2	Pet,eta	3 - 1 2011 6 1 201 105854 104617 85 99 70 99	Yates Pet.etal 5 · 1 · 2002 VA · 1595 15 <u>63</u>	The Allar Co 12 · 1 · 2009 103571 84 90	The Allar Co 12 · 1 · 2005 10 25 70 78 \$\infty\$	The Allar Co 12 1 2009 103570
	71.4	7 18 105854 8589	17	16	15	14	76 €° ! 3
.	7140	pin 1:6:79 ∠	ZIMII				13
100	7 77 77	U.S. End Montage Value 2002 VALUE	U.S. Schoenix Res. Cal Yates Sund	ond	9 21 u.s.	и.s.	U. 5.
, ,	21.57	VA 1604 32 VA 1605 2622 35 Will+ 2775 35 Will+ 2775 Yates Peteral 6- 1 - 2010	Property Res Cal Yures Can Marring Store 1 2002 Can Marring Store 1 200	D.J. Schutz	The Allar Co.,e 12 : 1 : 2003 103571 84.99	fal The Allar Co. 12 · 1 · 2005 103570 78 60	The Allar Co 12 2009 103570 78 00
]	3 12.13	19 26 22	104620 40°° 20	21	22	23	24
	31.7t	*	Sheering and				
	गळ	U.S. Yates Pet, etal	Phoenix Res. Fordner Dro TD 825 U. S. CVA 9-6-78	U. 5.	U 5.	u.ș.	U S.
	2 2.71	6- 1- 2010 104622 70 99	Echo Prod. 12 · 1 · 2010 105538 226 <u>99</u>	Echo Prod. 12 -1 - 2010 105577 225 <u>99</u>	Devon SFS 12 1 2003 103572 78 00	Devon SF5 14-1 4009 103572 78-90	The Allor Co 12-1-2009 103571 8450
	22.10	₃ 30	29 stake	28	27	26	Mukui Oper Ol Minghlands Ol Minghlands 25 15 15 15 15 15 15 15 15 15 15 15 15 15
	71.07	2 1					227
1	23.18	U.S. The Allor Co., elal	Tocation 25	U.S.	U.S.	us.	Mitchell Engr
 	23. 18	6: 1:2010 21 104611 11099 2	Yates Pet., etal L-1508	Devon SFS 6 · 1 · 2010 104623 100 99	Echo Prod. 12 · 1 · 2005 12 · 1 · 2010 105590 103572 226 92 7899	Devon SF5 12 · 1 · 2005 103572 78 <u>92</u>	Yates Pet. et al. () plone 5 · 1 · 2002 () () () () () () () () () (
\setminus	201-	Echo Prod.	Yates Pet Latham-St. Morrow Disc.	33	34	35	36
V	Z3.28	105530	/			BUNTING	RANCH
	27.32	117	1.3(2) 3797	U.S.	U.S. 2135 42232 312134 1435,77	U.Ş.	State
	73.W \	* * *	* * *	* * * *	p p +	* * * *	रं ते तथा ह
	2133 :	The Allar Co etal	ь т т т . 5	4 + + -	<u> </u>	+ + + + +	
П	≥1.90 //		Devon SFS 6 · 1 · 2010 104626 58.98	Devon SF5 6 · 1 · 2010 104628 15028	3 Devon SFS 6 : 1 : 2010 104624 18522	2 Yotes Pet , etal 4 · l · 2003 V · 1751	Yates Pet abul 78
	hu i	J U.S.	u.S.		·	47 62	130 miles Pet 120.72 17 Pauc AYO
	231 7	Yates Pet, etal	Yates Pet, etal	Yates Pet, et al 3 : 1 - 2008 Yates Pet, et al	U.S. Yates Pet_etal	State	U.S.
	וי וכנ	7 PC876	947. 01se. -10-82-79 9-678-68, PAI	100516 Yates Pet, etal 12-1-2005 103574 103574 1600 20	12 12 2009	EXHIBIT "A ONE MILE RADI	i
4	2.E3 5	,	ж в ! !	Yates Pet, etal 3:1:2005	10	KUKUI OPERATING	■
	'A	U. 5.	ا ا ب	24 99 U.S.	i i U.S.	SARGENT CANYON "31 UNIT "H"	" FEDERAL # 2 SECTION 31
ď	4	Yates Pet, etal 4 1 2004 9 1 - 96 4 1 2004 9 1 - 96 4 1 2004 9 1 20076 28 2		Yates Pet. etal M Wilson	R.K.Borr, efal	T19S-R21E	EDDY CO. NM

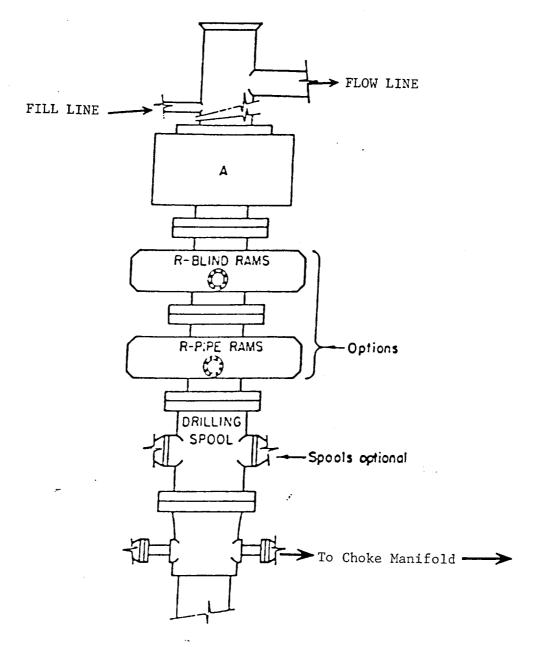






- Wind Direction Indicators (wind sock or streamers)
- △ H2S Monitors (alarms at bell nipple and shale shaker)
- Briefing Areas
- Remote BOP Closing Unit
- Sign and Condition Flags

EXHIBIT "D"
RIG LAY OUT PLAT



ARRANGEMENT SRRA

900 Series 3000 PSI WP

EXHIBIT "E"
SKETCH OF B.O.P. TO BE USED ON



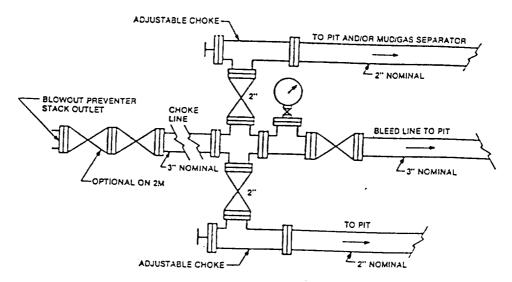


FIGURE K4-1. Typical choke manifold assembly for 2M and 3M rated working pressure service — surface installation.

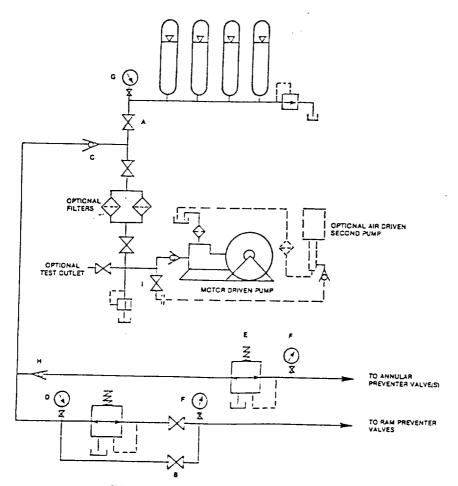
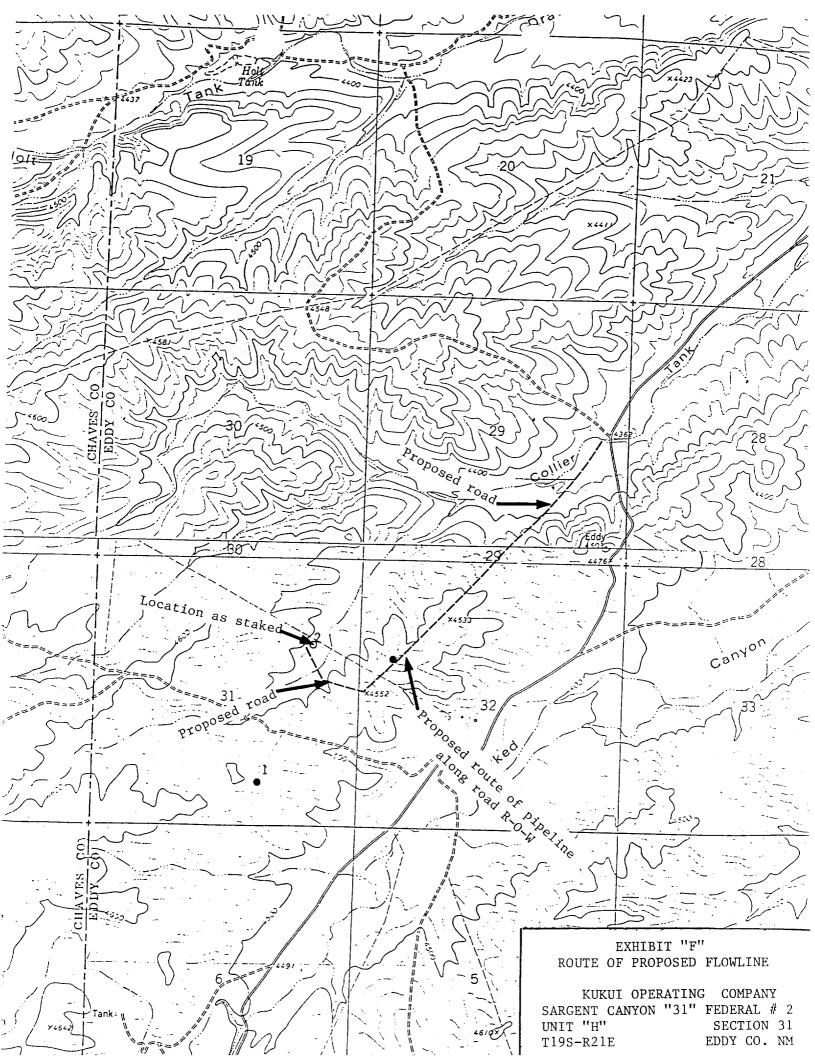


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

EXHIBIT "E-1"
CHOKE MANIFOLD & CLOSING UNIT



RECEIVED

2002 APR -5 AM 8: 36

KUKUI OPERATING COMPANY 203 WEST WALL SUITE 810 MIDLAND, TEXAS 79701

BUREAU OF LAND MGMT, FOSOMELDADIOZOE

Kukui Operating Company accepts all applicable terms, conditions, stipulations, and restrictions concerning operations conducted on the leased land or portions thereof as described below.

Lease #

NM-104611 and NM-105538

Legal Description of land. North half and South half of section 31 T19S-R21E

Eddy Co. New Mexico

Formation:

A11

Bond Coverage:

Statewide

BLM Bond File: # BO-5522

foe T. Janica

Agent for Kukui Operatinc Company