

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTN.M. Oil & Gas Div. Dist. 2
1301 W. Grand Avenue
Artesia, NM 88210FORM APPROVED
OMB NO. 1004-0136
Expires: February 28, 1995

APPLICATION FOR PERMIT TO DRILL OR DEEPEN

1a. TYPE OF WORK

DRILL ☒DEEPEN ☐

b. TYPE OF WELL

OIL
WELL ☐GAS
WELL ☒

OTHER

149678

SINGLE
ZONE ☐MULTIPLE
ZONE ☐

2. NAME OF OPERATOR

KUKUI OPERATING COMPANY (LARRY STRIDER 915-687-6200)

3. ADDRESS AND TELEPHONE NO.

203 WEST WALL SUITE 810 MIDLAND, TEXAS 79701 (915-687-6200)

4. LOCATION OF WELL (Report location clearly and in accordance with any State requirements.)

760' FSL & 990' FEL SECTION 25 T19S-R21E EDDY CO. NM
At proposed prod. zone SAME (P)

14. DISTANCE IN MILES AND DIRECTION FROM NEAREST TOWN OR POST OFFICE

Approximately 15 miles South of Hope New Mexico

15. DISTANCE FROM PROPOSED

LOCATION TO NEAREST

PROPERTY OR LEASE LINE, FT.

(Also to nearest drlg. unit line, if any)

760'

18. DISTANCE FROM PROPOSED LOCATION

TO NEAREST WELL, DRILLING, COMPLETED,
OR APPLIED FOR, ON THIS LEASE, FT.

3000'

16. NO. OF ACRES IN LEASE

1920

19. PROPOSED DEPTH

8000'

17. NO. OF ACRES ASSIGNED
TO THIS WELL

320

20. ROTARY OR CABLE TOOLS

ROTARY

21. ELEVATIONS (Show whether DF, RT, GR, etc.)

4131' GR.

22. APPROX. DATE WORK WILL START

WHEN APPROVED

PROPOSED CASING AND CEMENTING PROGRAM

SIZE OF HOLE	GRADE SIZE OF CASING	WEIGHT PER FOOT	SETTING DEPTH	QUANTITY OF CEMENT
20"	Conductor 14"	NA	40'	Cement to surface with Redi-mix
12 1/4"	J-55 9 5/8"	36	1450'	1150 Sx. Circulate to surface
8 3/4"	N-80 5 1/2"	17	8000'	1000 Sx. Estimate TOC 4700'

1. Drill 20" hole to 40'. Set 40' of 14" conductor pipe and cement to surface with Redi-mix.
2. Air drill 12 1/4" hole to 1450'. Run and set 1450' of 9 5/8" 36# J-55 ST&C casing. Cement with 720ft³ of 9.0#/Gal Class "C" foam cement (1150' of fill + 100% excess), tail in with 188ft³ (300' of fill + 100% excess) of Class "C" cement + 2% CaCl. If cement does not circulate, immediately cement annulus through 13 5/8" casing head with an additional 200ft³ of 9#/Gal Class "C" foam cement and cap with 50 Sx. of Class "C" cement + 2% CaCl.
3. Drill 8 3/4" hole to 8000'. Run and set 8000' of 5 1/2" 17# N-80 LT&C casing. Cement with 1000 Sx. of 50/50 POZ Class "C" cement + additives, estimate top of cement 4700' form surface.

Koswell Controlled Water Drill

IN ABOVE SPACE DESCRIBE PROPOSED PROGRAM: If proposal is to deepen, 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.

SIGNED

Agent

DATE 04/22/02

(This space for Federal or State office use)

PERMIT NO.

APPROVAL DATE

Application approval does not warrant or certify that 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:APPROVAL SUBJECT TO
GENERAL REQUIREMENTS AND
SPECIAL STIPULATIONS
ATTACHED

APPROVED BY

/S/ JOE G. LARA

TITLE

FIELD MANAGER

DATE

JUN 07 2002

*See Instructions On Reverse Side

APPROVAL FOR 1 YEAR

APR 10 1961

RECEIVED
APR 24 02
BLM
ROSOWELL NM

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1984
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

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

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

OIL CONSERVATION DIVISION

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

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name UNDES.-BUNTING
Property Code	Property Name HIGHLANDS "25" FED	Well Number 3
OGRID No. 149678	Operator Name KUKUI OPERATING COMPANY	Elevation 4131

Surface Location

UL or lot No. P	Section 25	Township 19 S	Range 21 E	Lot Idn	Feet from the 760	North/South line SOUTH	Feet from the 990	East/West line EAST	County 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 320	Joint or Infill	Consolidation Code	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

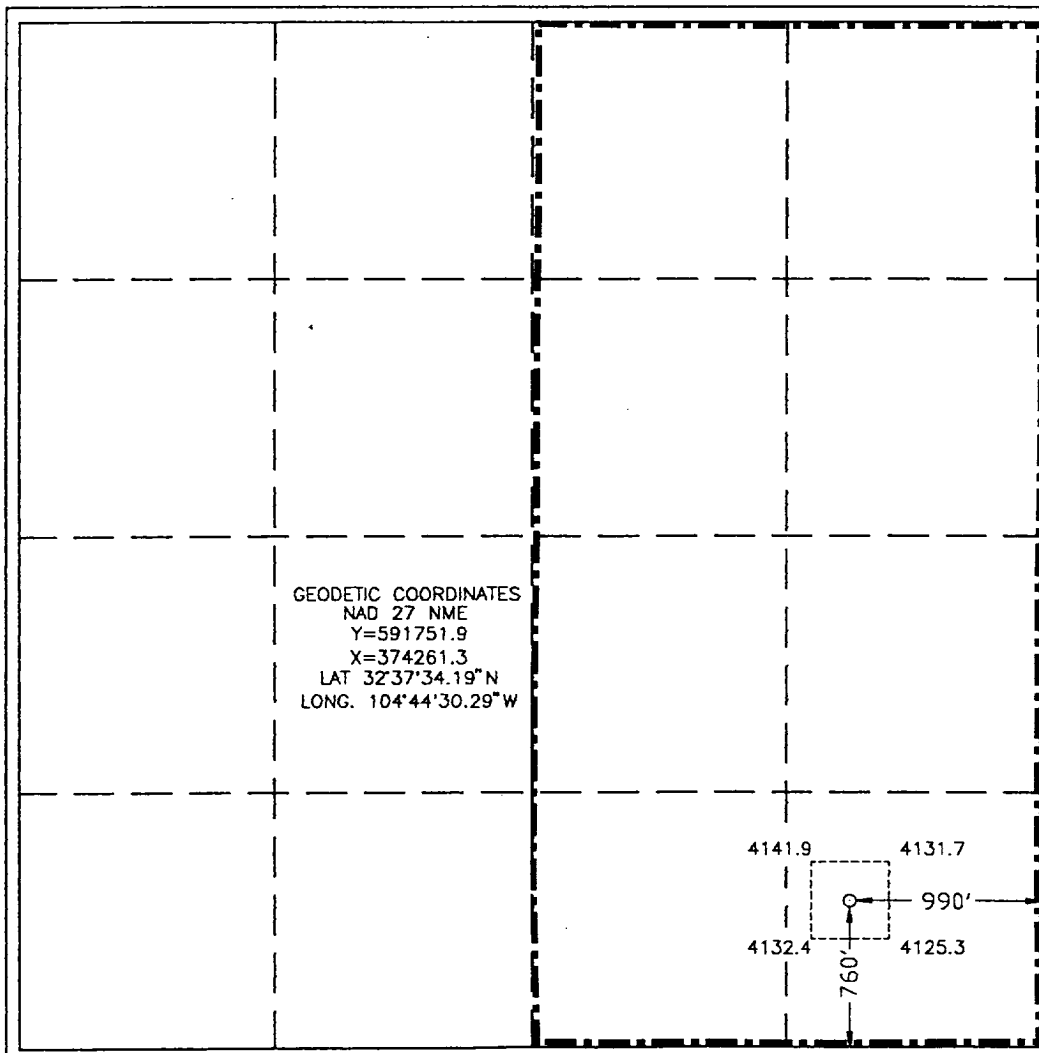
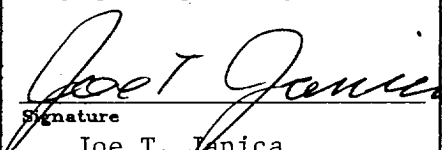
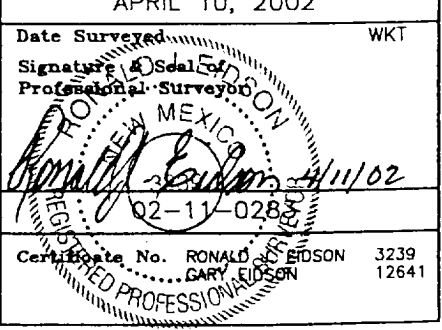
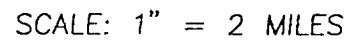
	OPERATOR CERTIFICATION I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.  Signature Joe T. Janica Printed Name Agent Title 04/22/02 Date
	SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from 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. APRIL 10, 2002 Date Surveyed Signature & Seal of Professional Surveyor  Certificate No. RONALD J. EDSON 3239 GARY EDSON 12641

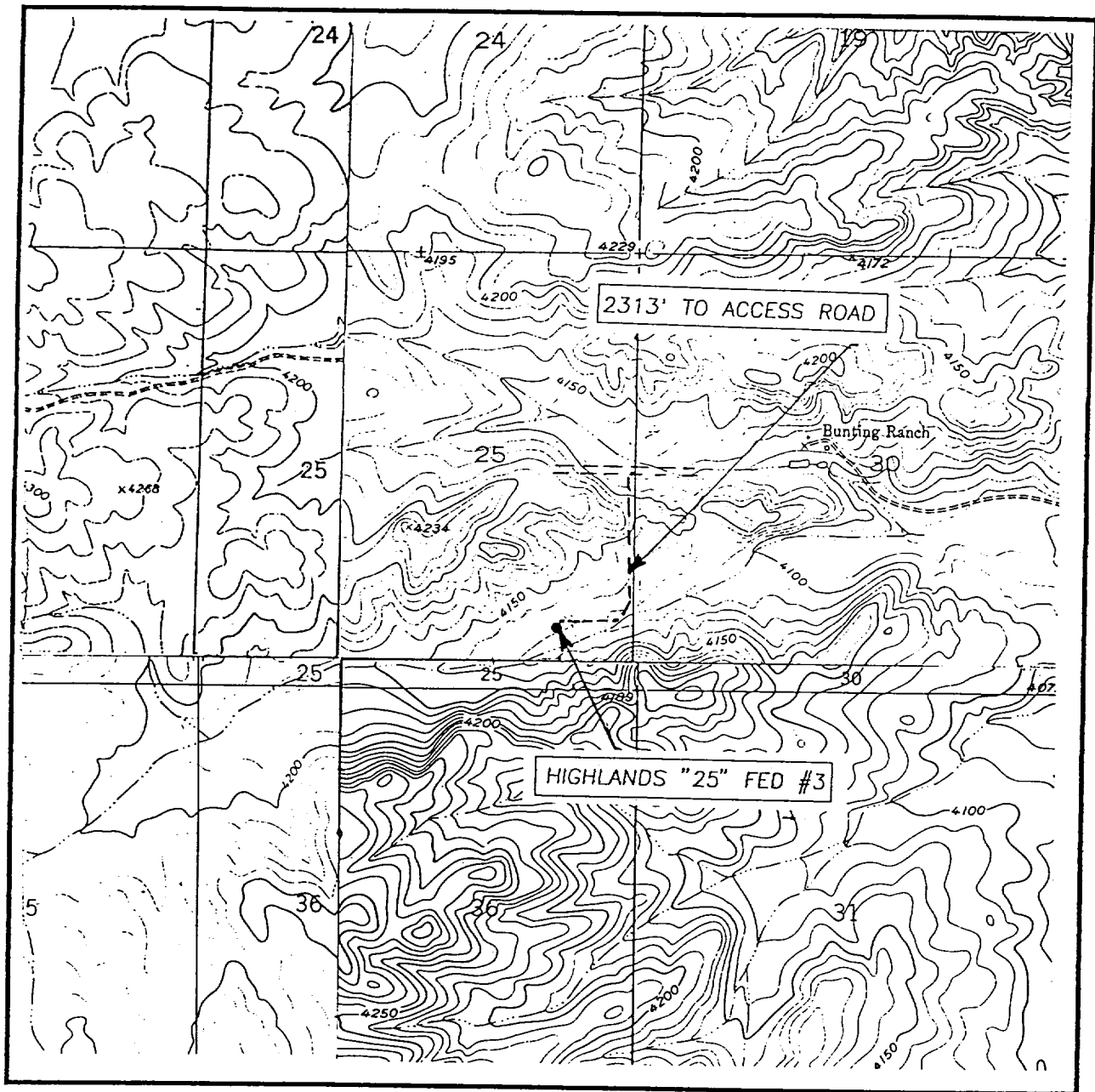
EXHIBIT "A"



LEASE HIGHLANDS "25" FED

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

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: 10'

SEC. 25 TWP. 19-S RGE. 21-E

ANTELOPE SINK

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 760' FSL & 990' FEL

ELEVATION 4131

JOHN WEST SURVEYING
HOBBS, NEW MEXICO

(505) 393-3117

OPERATOR KUKUI OPERATING COMPANY

LEASE HIGHLANDS "25" FED

U.S.G.S. TOPOGRAPHIC MAP

ANTELOPE SINK

APPLICATION TO DRILL

KUKUI OPERATING COMPANY
HIGHLANDS "25" FEDERAL # 3
UNIT "P" SECTION 25
T19S-R21E EDDY CO. NM

In response to questions asked under Section II of Bulletin NTL-6 the following information on the above well is provided for your consideration.

1. Location: 760' FSL & 990' FEL SEC. 25 T19S-R21E EDDY CO. NM
2. Elevation above Sea Level: 4131' GR.
3. Geologic name of surface formation: Quaternary Aeolian Deposits.
4. Drilling tools and associated equipment: Conventional rotary drilling rig using drilling mud as a circulating medium for solids removal from hole.
5. Proposed drilling depth: 8000'
6. Estimated tops of geological markers:

San Andres	1450'	Strawn	7080'
Drinkard	2880'	Atoka Clastics	7240'
Wolfcamp	4590	Morrow Clastics	7590'
Cisco	6070'	Barnett Shale	7770'
Canyon	6480'	Chester	7840'
7. Possible mineral bearing formations:

Wolfcamp	Gas	Atoka	Gas
Cisco/CANYON	Gas	Morrow	Gas
8. Casing program:

Hole size	Interval	OD of casing	Weight	Thread	Collar	Grade
20"	0-40'	14"	NA	NA	NA	Conductor
12½"	0-1450'	9 5/8"	36	8-R	ST&C	J-55
8 3/4"	0-8000'	5½"	17	8-R	LT&C	N-80

KUKUI OPERATING COMPANY
HIGHLANDS "25" FEDERAL # 3
UNIT "P" SECTION 25
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 1450' of 9 5/8" 36# J-55 ST&C casing. Cement with 720 ft ³ of 9.0#/Gal Class "C" foam cement (1150' of fill + 100% excess) ; tail in with 180 ft ³ of Class "C" + 2% CaCl (300' of fill + 100% excess). If cement does not circulate, immediately cement annulus through 13 3/8" casing head with an additional 200 ft ³ of 9.0#/Gal Class "C" foam cement and cap with 50 Sx. of Class "C" cement + 2% cacl.
5 1/2"	Production	Set 8000' of 5 1/2" 17# N-80 LT&C casing. Cement with 1000 Sx. of 50/50 POZ Class "C" cement + additives, estimate top of cement 4700' from surface.

10. PRESSURE CONTROL EQUIPMENT: Exhibit "E" shows a 900 Series 3000 PSI working pressure B.O.P. consisting of an annular bag type preventor, middle blind rams and bottom pipe rams. The B.O.P. will be nipped 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 LOSS	TYPE MUD SYSTEM
40-1450'	Air	NA	NA	Drill surface with air
1450-8000'	8.8-9.5	22-34	NC	Cut brine use paper to control seepage Soda- to control pH Salt Gel for viscosity.

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.

KUKUI OPERATING COMPANY
HIGHLANDS "25" FEDERAL # 3
UNIT "P" SECTION 25
T19S-R21E EDDY CO. NM

12. LOGGING, CORING, AND TESTING PROGRAM:

- A. Open hole logs: Dual Laterolog, CNL, LDT, Gamma Ray Caliper from TD to 1450'. Gamma Ray, Neutron from 1450' to surface.
- B. FMI in selected intervals in the Atoka-Morrow sections
- C. Put mud logger on hole 500' above the top of San Andres.
- D. Possible DST's in the Wolfcamp, Cisco/Canyon, Atoka and Morrow.

13. POTENTIAL HAZARDS:

No abnormal pressures or temperatures are expected. There is no known presence of H²S in this area. If H²S 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 145°.

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 23 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 potentialized as a gas well.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

1. All Company and Contract personnel admitted on location must be trained by a qualified H₂S safety instructor to the following:
 - A. Characteristics of H₂S
 - B. Physical effects and hazards
 - 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 bloopie 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" & "E-1"
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 telephones 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 the location is near to a dwelling a closed DST will be performed.

HYDROGEN SULFIDE DRILLING OPERATIONS PLAN

8. Drilling contractor supervisor will be required to be familiar with the effects H₂S has on tubular goods and other mechanical equipment.
9. If H₂S is encountered, mud system will be altered if necessary to maintain control of formation. A mud gas separator will be brought into service along with H₂S scavengers if necessary.

KUKUI OPERATING COMPANY
HIGHLANDS "25" FEDERAL # 3
UNIT "P" SECTION 25
T19S-R21E EDDY CO. NM

1. EXISTING AND PROPOSED ROADS: Area maps: Exhibit "B" is a reproduction of a County General Hi-way map showing access roads to the location. Exhibit "C" is a reproduction of a USGS Topographic map showing existing roads in close proximity to the location and the proposed access roads. All existing roads will be maintained in a condition equal to or better than their current conditions. All 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) 15.3 miles South turn Left (West) follow ranch road 1.5 miles thru corral continue West .4 miles turn Left (South) go .4 miles to location.
 - C. Lay flowlines along road R-O-W to gas sales point as shown on Exhibit "F"
2. PLANNED ACCESS ROADS: Approximately 300' of 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 roads will be surfaced to the BLM requirements with material obtained from a local source.
 - E. Center line of new road will be flagged.
 - F. The new road will be constructed to utilize low water crossings where drainage currently exists, and culverts will be installed where necessary.
3. EXHIBIT "A-1" SHOWS THE BELOW LISTED TYPE WELLS WITHIN A 1 MILE RADIUS:
 - A. Water wells - One well approximately 1 mile East of location.
 - 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
HIGHLANDS "25" FEDERAL # 3
UNIT "P" SECTION 25
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-O-W's or other existing R-O-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 quarters 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
HIGHLANDS "25" FEDERAL # 3
UNIT "P" SECTION 25
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
HIGHLANDS "25" FEDERAL # 3
UNIT "P" SECTION 25
T19S-R21E EDDY CO. NM

11. OTHER INFORMATION:

- A. Topography consists of rolling limestone hills with an Easterly dip drainage is into Segrest Draw. Vegetation consists of creosote bush, yucca, cholla, acacia, snakeweed and native grasses. Soil is a silty loam in the areas of low relief.
- 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 Mexico.
- D. An abandoned ranch dwelling is located approximately 1 mile East of location.

12. OPERATORS REPRESENTATIVE:

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:

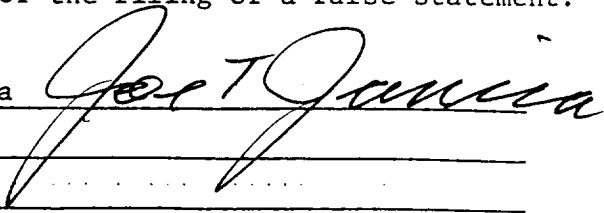
KUKUI OPERATING COMPANY
203 WEST WALL SUITE 810
MIDLAND, TEXAS 79701
OFFICE PHONE 915-687-6200
LARRY STRIDER

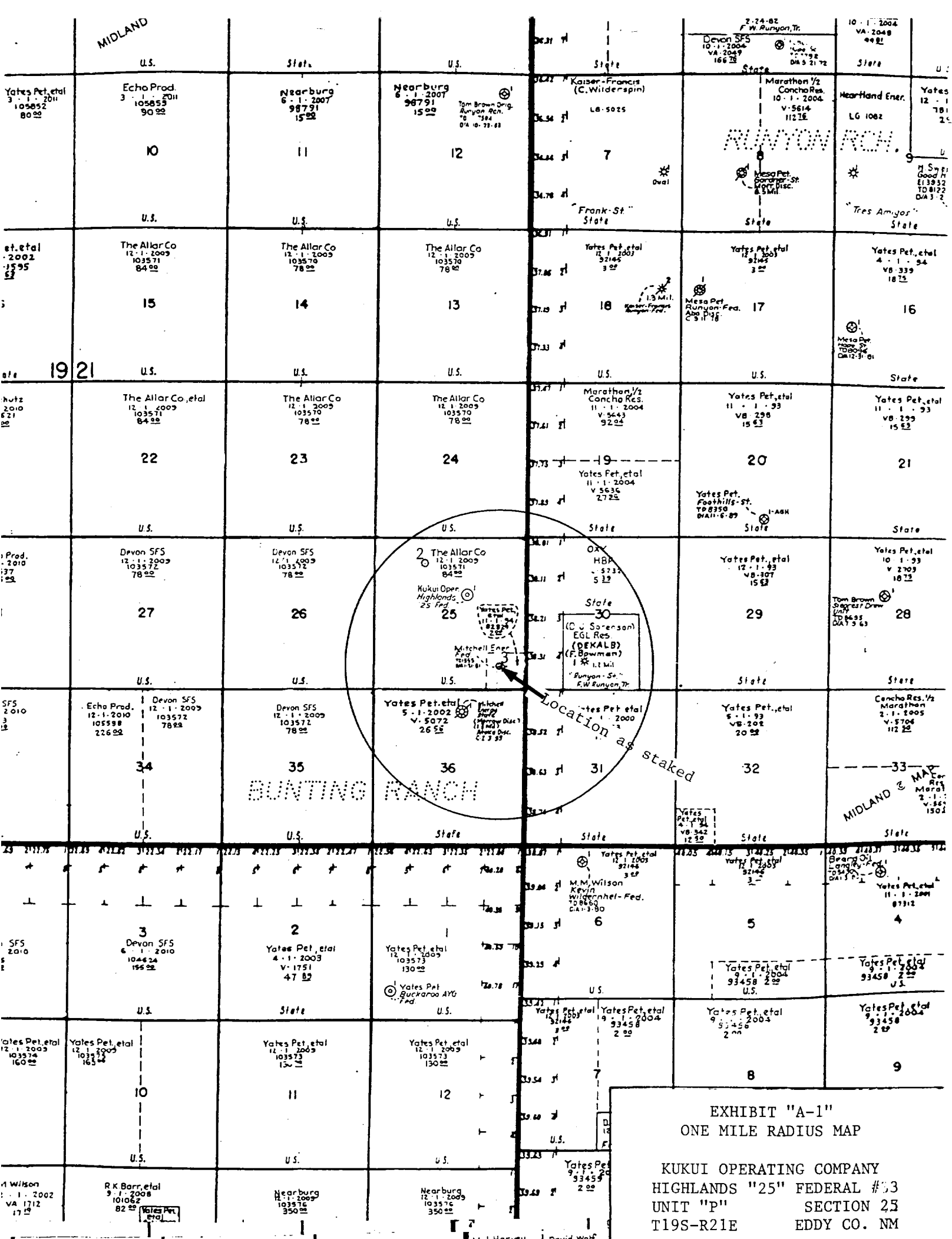
13. CERTIFICATION: I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route and that I am familiar with the conditions that currently exist, that the statements made in this plan are to the best of my knowledge are true and correct. The work 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 : 04/22/02





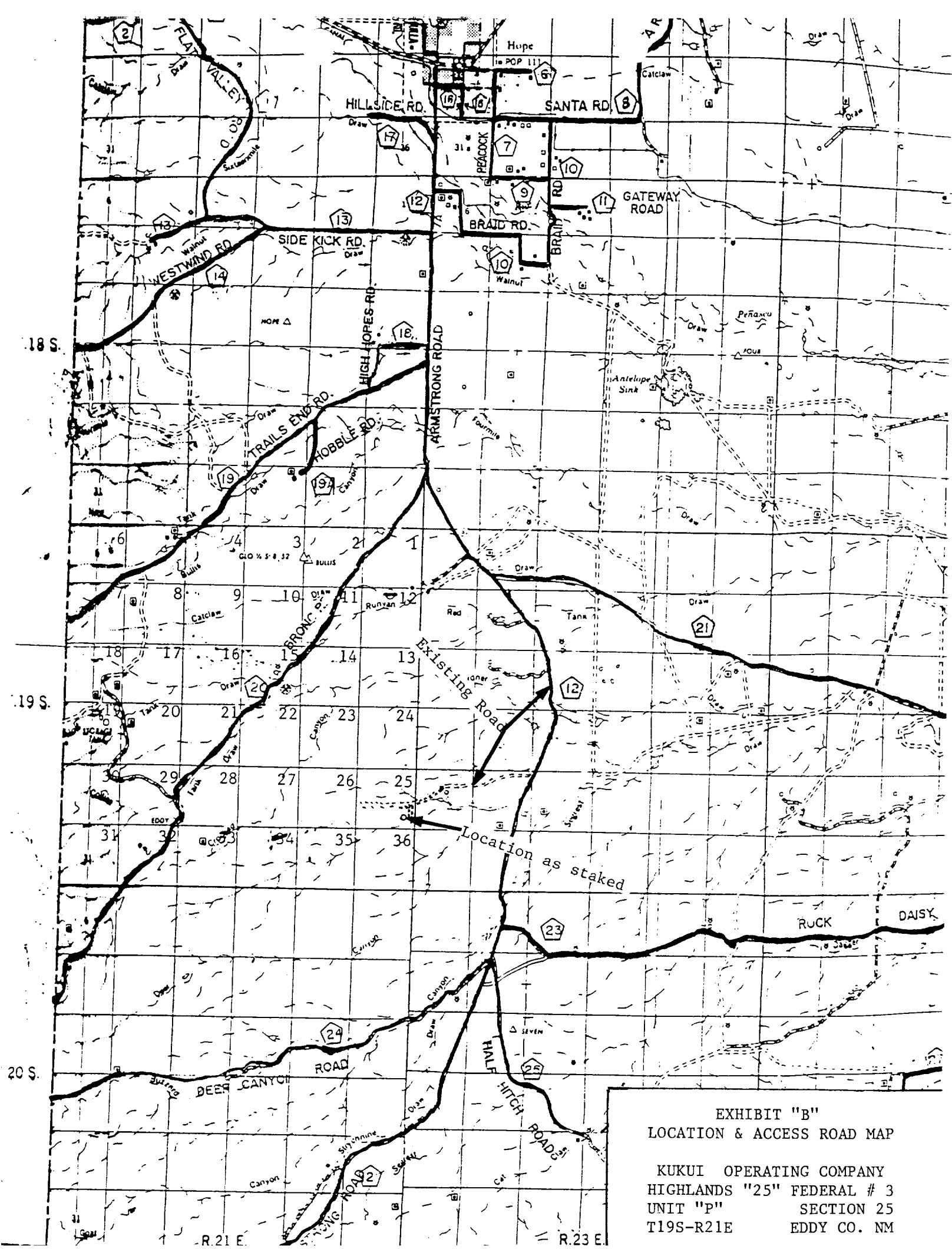


EXHIBIT "B"
LOCATION & ACCESS ROAD MAP

KUKUI OPERATING COMPANY
HIGHLANDS "25" FEDERAL # 3
UNIT "P" SECTION 25
T19S-R21E EDDY CO. NM

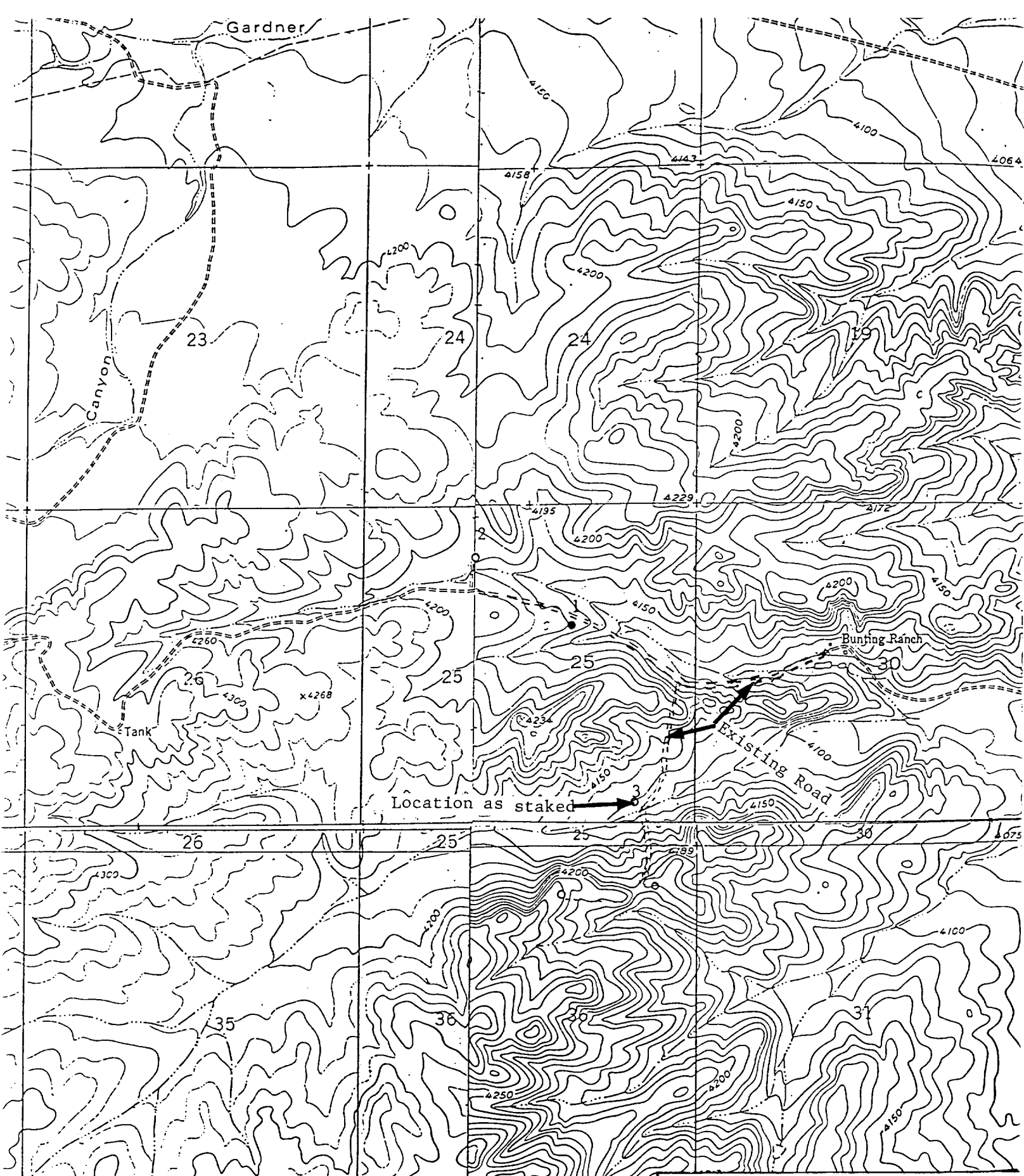
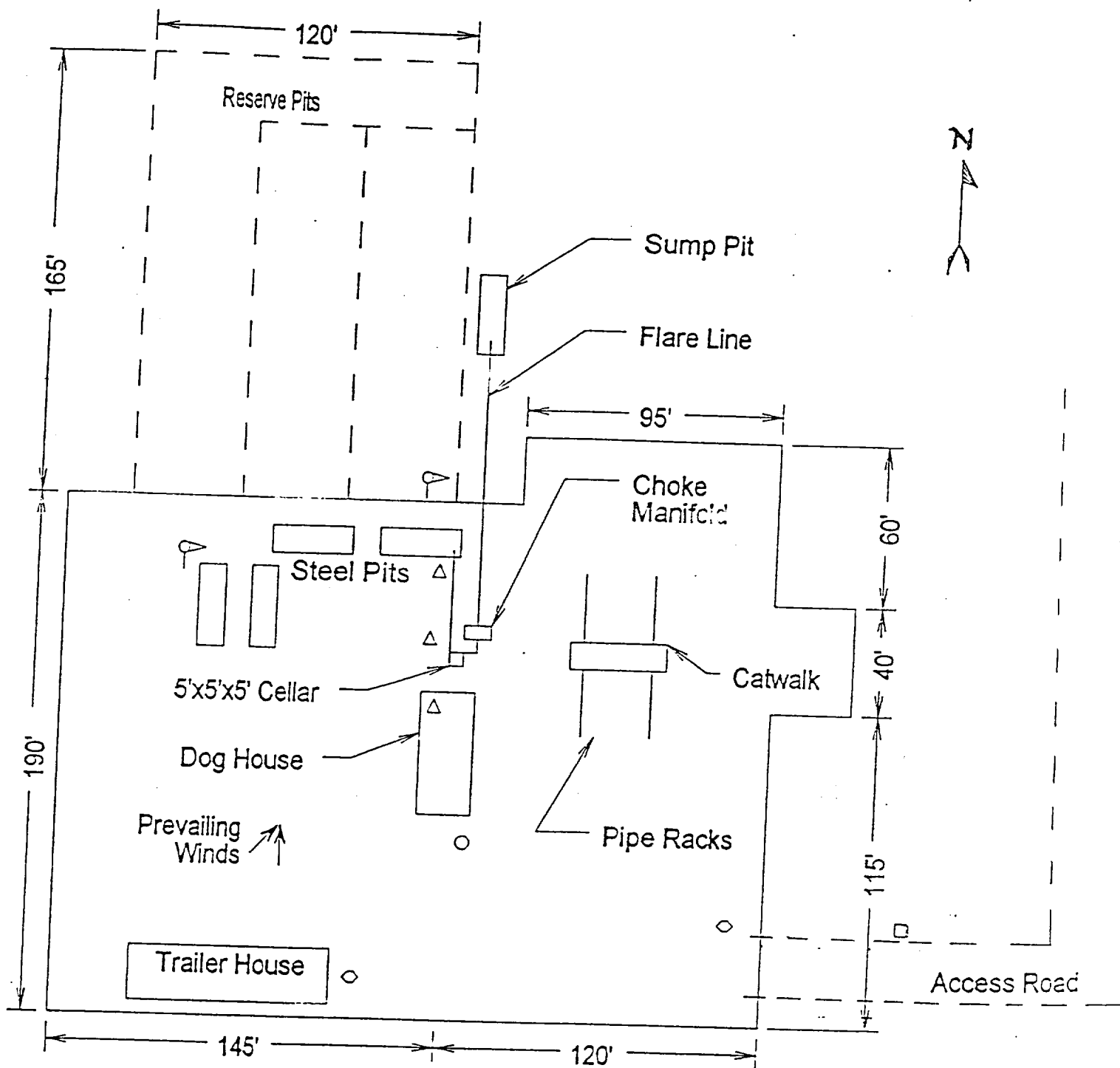


EXHIBIT "C"
TOPOGRAPHIC MAP SHOWING
ROADS & DIRECTIONS TO

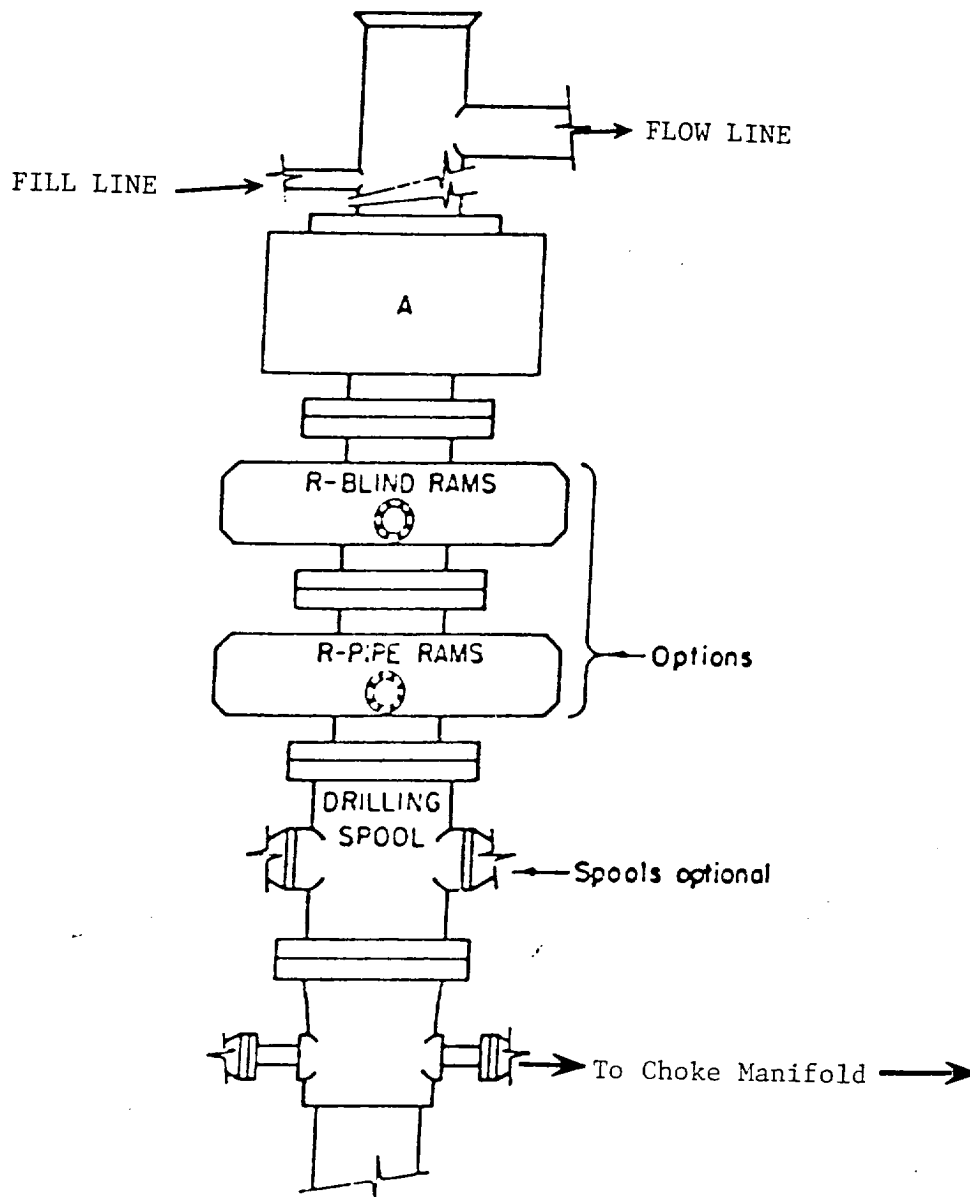
KUKUI OPERATING COMPANY
HIGHLANDS "25" FEDERAL # 3
UNIT "P" SECTION 25
T19S-R21E EDDY CO. NM



- ⤴ 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

KUKUI OPERATING COMPANY
HIGHLANDS "25" FEDERAL # 3
UNIT "P" SECTION 25
T19S-R21E EDDY CO. NM



ARRANGEMENT SRRA

900 Series
3000 PSI WP

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

KUKUI OPERATING COMPANY
HIGHLANDS "25" FEDERAL # 3
UNIT "P" SECTION 25
T19S-R21E EDDY CO. NM

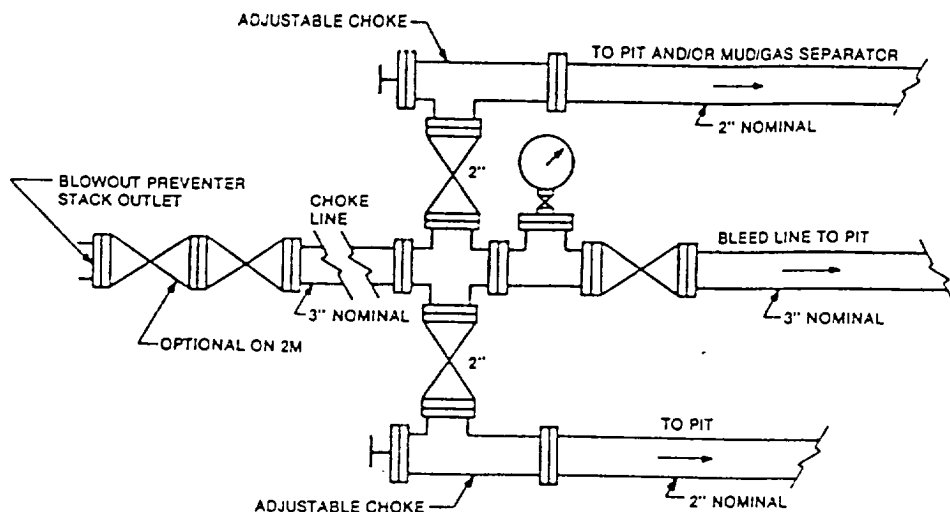


FIGURE K4-1. Typical choke manifold assembly for 2M and 3M rated working pressure service — surface installation.

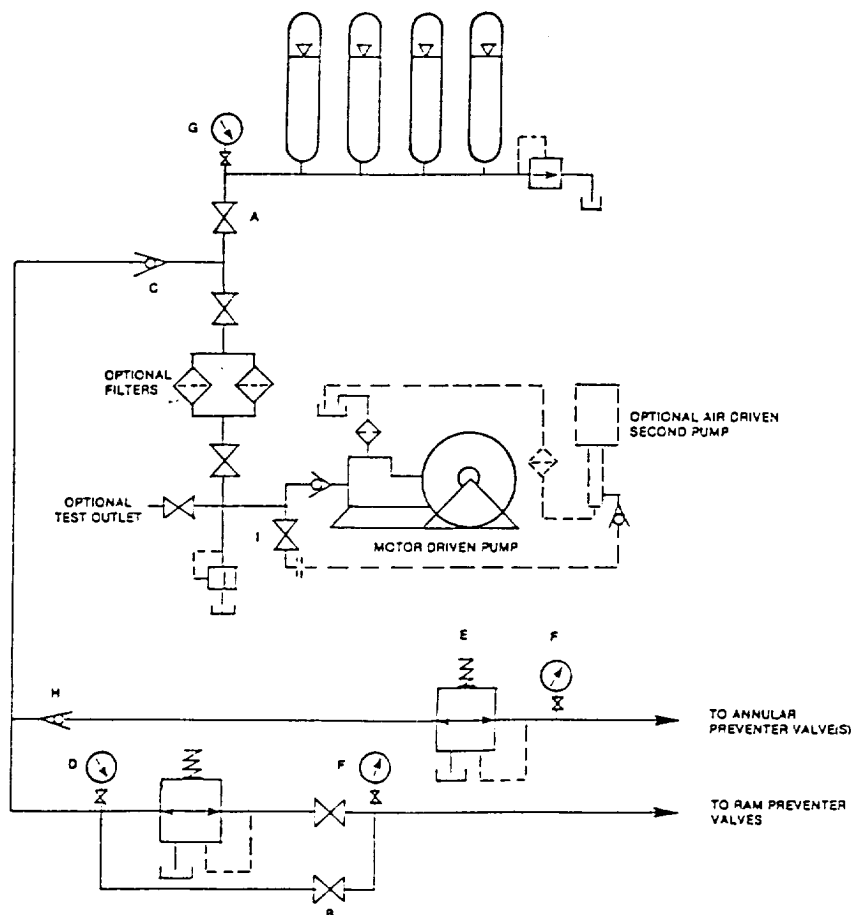


FIGURE K6-1. The schematic sketch of an accumulator system shows required and optional components.

EXHIBIT "E-1" CHOKE MANIFOLD & CLOSING UNIT

KUKUI OPERATING COMPANY
HIGHLANDS "25" FEDERAL # 3
UNIT "P" SECTION 25
T19S-R21E EDDY CO. NM

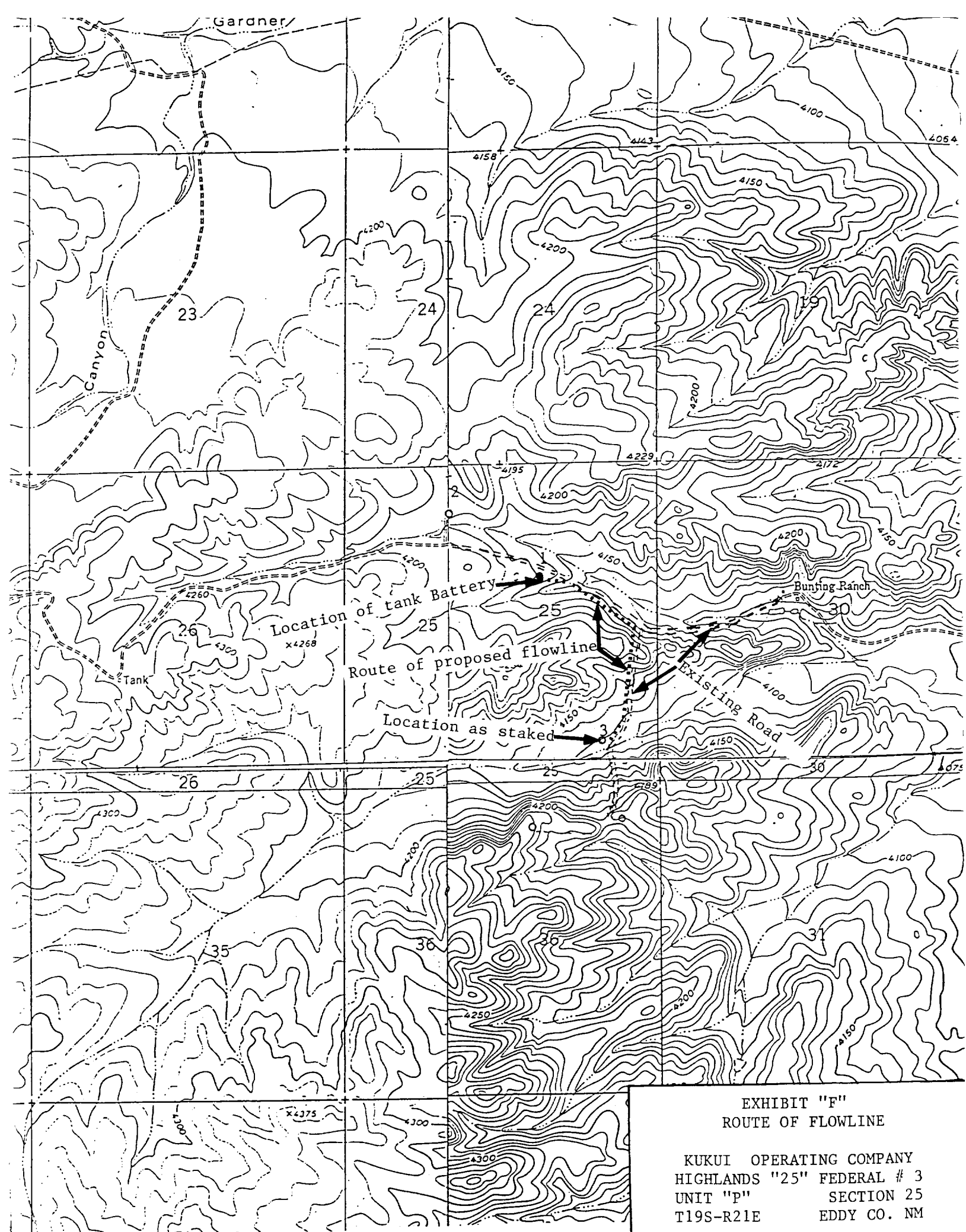


EXHIBIT "F"
ROUTE OF FLOWLINE

KUKUI OPERATING COMPANY
HIGHLANDS "25" FEDERAL # 3
UNIT "P" SECTION 25
T19S-R21E EDDY CO. NM