N. M. Oil Cons. Division
811 S. 1st St.
Artesia, NM 88210-2834

RECEIVED
OCD ARTESIA

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS

Form 3160-3
(August 1999)

FORM APPROVED
OMB No. 1004-0136
Expires November 30, 2000

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No. NMNM 1046666

6. If Indian, Allottee or Tribe Name

1a. Type of Work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.

1b. Type of Well: ☐ Oil Well ☑ Gas Well ☐ Other ☑ Single Zone ☐ Multiple Zone

8. Lease Name and Well No. Buena Vista 25 Federal #1

2. Name of Operator KUKUI Operating Company 149678

9. API Well No. 30-015-31435

3a. Address 601 Vestavia Pkwy, St. 240 Vestavia, AL 35216

3b. Phone No. (include area code) 205-823-2977

10. Field and Pool, or Exploratory Undesignated Mile Post-Mo

4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface 990' FNL & 1,780' FWL Unit C
At proposed prod. zone Same

11. Sec., T., R., M., or Blk. and Survey or Area Sec. 25-T26S-R25E

14. Distance in miles and direction from nearest town or post office* 11 miles South of Whites City, NM

12. County or Parish Eddy

13. State NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 860'

16. No. of Acres in lease 1600

17. Spacing Unit dedicated to this well West ½ of Section 25

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.

19. Proposed Depth 10,700'

20. BLM/BIA Bond No. on file B05522

21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3,564 GL

22. Approximate date work will start* August 15, 2000

23. Estimated duration 35 days

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.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO shall be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be required by the authorized officer.

25. Signature Larry K. Strider — Name (Printed/Typed) Larry K. Strider — Date 7/12/2000

Title District Operations Manager

Approved by (Signature) /S/ LARRY D. BRAY — Name (Printed/Typed) Larry D. Bray — Date NOV [illegible]

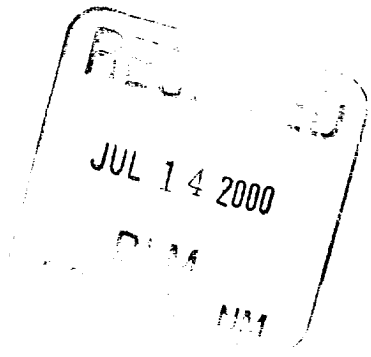
Title Assistant Field Manager, Lands And Minerals — Office [illegible] — APPROVED FOR 1 YEAR

Application approval does not warrant or certify the 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.

*(Instructions on reverse)


JUL 14 2000

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

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

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		Undesignated Mile Post - Morrow

Property Code	Property Name	Well Number
	BUENA VISTA 25 FEDERAL	1

OGRID No.	Operator Name	Elevation
149678	KUKUI OPERATING COMPANY	3564

Surface Location

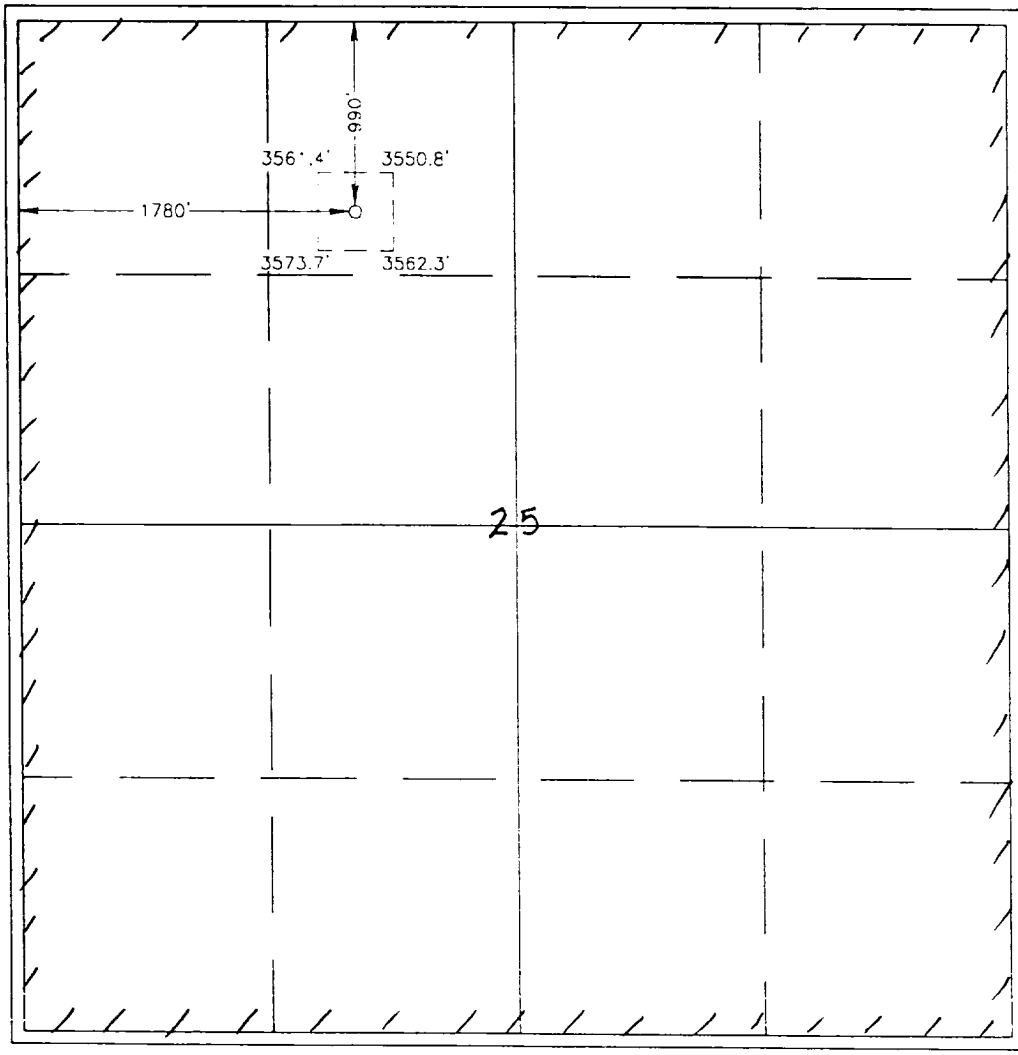
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
C	25	26 S	25 E		990	NORTH	1780	WEST	EDDY

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 or Infill	Consolidation Code	Order No.
320			

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: Larry K. Strider

Printed Name: Larry K. Strider

Title: District Operations Mgr.

Date: 7/12/2000

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 supervison, and that the same is true and correct to the best of my belief.

JUNE 1, 2000

Date Surveyed DC

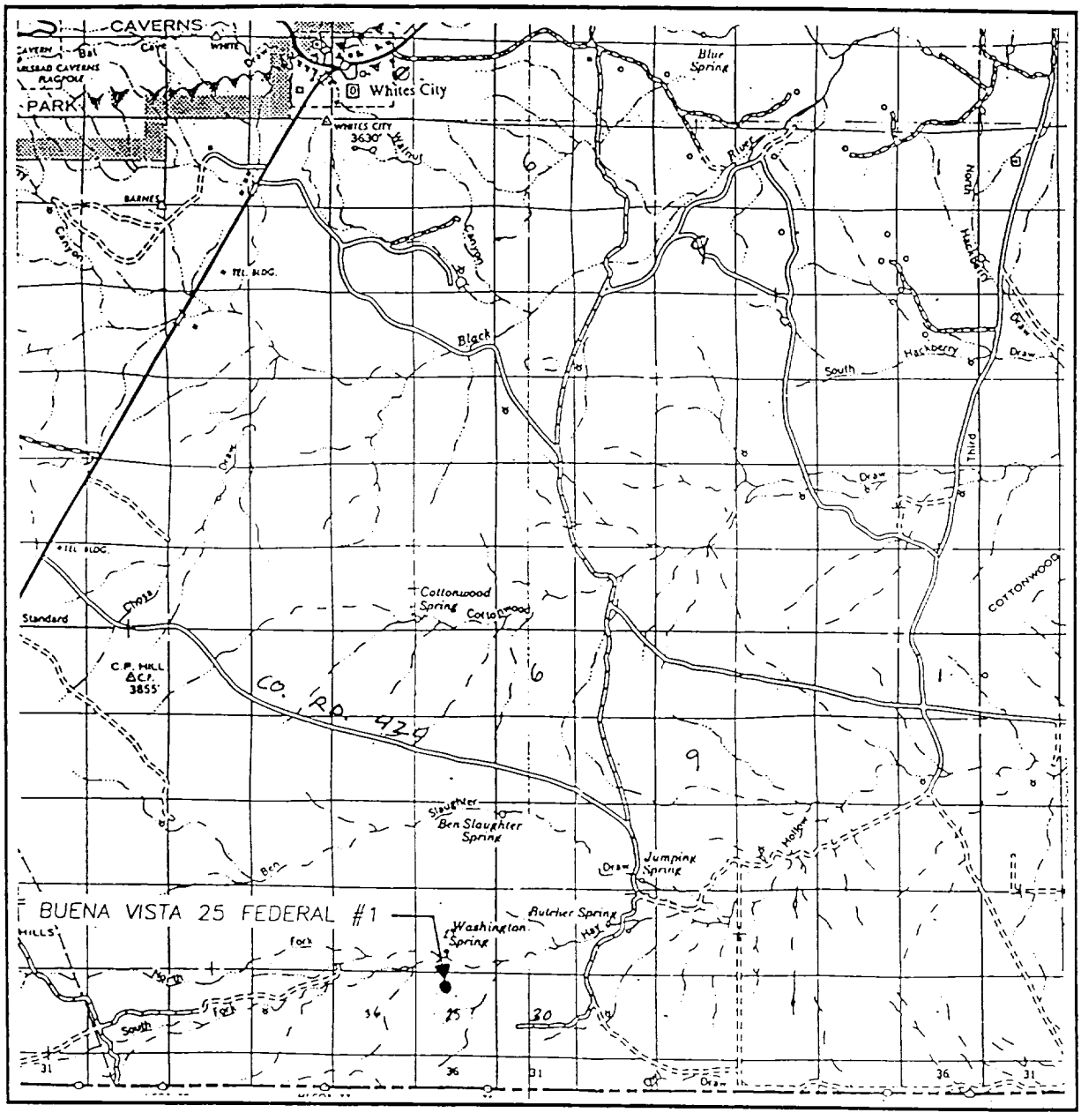
Signature & Seal of Professional Surveyor

Gary B. Eidson 7/5/2000

NM-11-0719

Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12641
MACON McDONALD 12185

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 25 TWP. 26-S RGE. 25-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 990' FNL & 1780' FWL

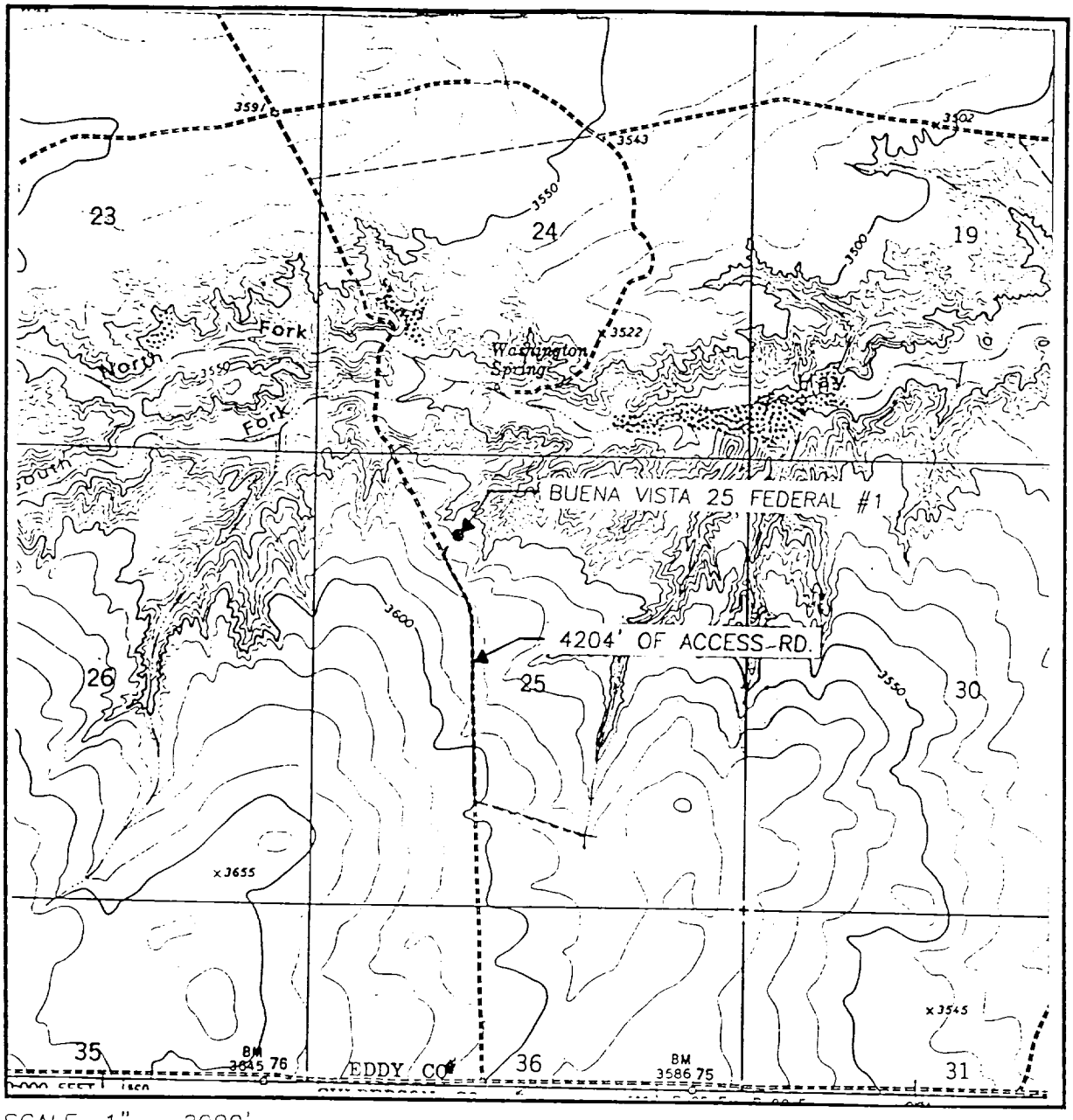
ELEVATION 3564

OPERATOR KUKUI OPERATING COMPANY

LEASE BUENA VISTA 25 FEDERAL

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

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
JUMPING SPRING - 10'

SEC. 25 TWP. 26-S RGE. 25-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 990' FNL & 1780' FWL

ELEVATION 3564

OPERATOR KUKUI OPERATING COMPANY

LEASE BUENA VISTA 25 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
JUMPING SPRING, N.M.

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

KUKUI Operating Company
Buena Vista '25' Federal #1
990' FNL, & 1,780' FWL
Sec. 25 – T 26S – R 25E
Eddy County, New Mexico
Proposed Total Depth: 10,700' TVD

DRILLING PROGRAM

1.) **Estimated Formation Tops:**

Formation	Est. Depth
Salt	1225'
Lamar	1530'
Bell Canyon	1580'
Cherry Canyon (Manzanita)	2500'
Brushy Canyon	3970'
Lower Brushy Canyon Shale	4700'
Bone Spring Formation	4975'
First Bone Spring Sand	5820'
Second Bone Spring Sand	6500'
Third Bone Spring Sand	7430'
Wolfcamp	7750'
Cisco	8720'
Strawn	8960'
Atoka	9440'
Morrow Lime	9870'
Paduca Sand	10010'
Lotos Sand	10100'
Lower Morrow Shale	10140'
Lower Morrow 'A' Sand	10190'
Barnett Shale	10210'
Chester Sand	10350'

2.) **Estimated Depths of Anticipated Minerals:**

Fresh Water - Surface to 200'.
- Operator plans to set 13 3/8" surface casing to 300' and cement to surface.

Salt Section - Salado Salt at 1225'.
Operator plans to set 9 5/8" intermediate string to +/- 5,150' (into top of Bone Spring).

Hydrocarbons – Wolfcamp, Cisco, Atoka, and Morrow formations with depths ranging from 7,000' to 10,500'.

3.) **Minimum Specifications for Pressure Control Equipment:**

Interval	Depths	Hole Size	BOP's
Surface	0'-300'	17 1/2"	Diverter head
Intermediate	300'-5,150'	12 1/4"	3M-13 5/8 – A
Production	5,150'-10,700'	8 3/4"	5M-11 - SRRA

The accumulator system will have three times the volume necessary to close everything on the BOP stack. A 5M choke manifold will be utilized with minimum 3" nominal diameter inlet line and 2" nominal diameter downstream lines. Manifold, lines, and BOP's will be tested to maximum working pressure of stack.

4.) **Proposed Casing Program:**

Interval	Depths	Hole Size	Casing Specified (New)
Conductor	0-30'	~ 24"	20" Structural – only if required
Surface	0-300'	17 1/2"	13 3/8", 48.0 lbs./ft., H-40, ST&C
Intermediate	0-5,150'	12 1/4"	9 5/8", 40.0 lbs./ft., N-80, LT&C
Production	0-10,700'	8 3/4"	5 1/2", 20.0 lbs./ft., N-80, LT&C

5.) **Proposed Cementing Program:**

Surface Casing: 300' of 13 3/8" casing in 17 1/2" hole with 100% excess. Cement to be circulated to surface.

311 sacks Class A + 2% $CaCl_2$

1.34 $ft.^3/sk.$
14.8 lbs./gal.
6.36 gals./sk.

Intermediate: 5,150' of 9 5/8" in 12 1/4". Top of cement calculated for 1,000' of fill with 50% excess (TOC @ 4,150').

343 sacks Class A + 2% Bentonite + 5% salt + retarder as required.
Note: Cement volume will be increased if hydrocarbons are encountered in Delaware Group to comply with NMOCD state wide rules.

14.8 lbs./gal.
1.37 $ft.^3/sk.$
6.5 gals./sk.

Production Casing: 10,700' of 5 1/2" in 8 3/4" hole.
Volume calculated for 6,000' of fill (TOC above intermediate casing seat) with 25% excess.

Lead cement: 1,062 sacks 50/50 Poz H + 6% gel + lost circulation material as required.

13.3 lbs./gal.
1.54 $ft.^3$/sk.
7.7 gals./sk.

Tail cement - 200 sacks Class H cement + fluid loss additive + lost circulation material as required.

15.6 lbs./gal.
1.18 cu. ft./sk.
5.2 gals./sk.

Float shoes, float collars, and centralizers will be utilized where feasible. Casing will be reciprocated during cementing operations when possible. Fluid spacers and top wiper plugs will be utilized on each job.

6.) **Mud Program:**

Surface to 300':	Spud with gel/lime water base fluid having 34-36 sec./qt. viscosity with lost circulation material as required. Fluid viscosity may be increased to 45-50 sec./qt. in the event circulation becomes a problem.
300' to 5,150':	Brine/Native System with lime for pH control and drilling paper/fibrous material for lost circulation control. Mix salt gel system @ 10 ppg, viscosity 39-42 sec./qt., fluid loss 12-15 cc/30 min. if hole conditions warrant.
5,150' – 9,200':	Controlled Brine/Native System with pH of 9.0-10.0, mud weight of 9.0-10. ppg, and total solids < 1.5%. Utilize salt gel sweeps for hole cleaning. Utilize paper to control seepage. Increase fluid density with brine as required.
9,200' – 10,700':	Mud up with Xanthan Gum/White Starch type system in steel working pits. Mud weight 10.0-10.3 ppg with viscosity of 34-42 sec./qt. Reduce fluid loss to <8 cc prior to drilling Morrow formation. Utilize barite to increase density if required.

Adequate amounts of LCM and barite will be on location to control circulation and maintain bottom hole pressures. Minimum kick detection equipment will include a mud return indicator (flow line sensor) and pit volume totalizer (PVT).

7.) **Anticipated Testing, Coring, and Logging:**

Mud Logger - On site @ 1,400' (above Lamar)

Potential DST Zones – Wolfcamp, Cisco, Atoka, Morrow

Logging Program:

	Log Suite	Intervals
Run #1	DLL-GR	Delaware Group
	CNL-LDT-GR	Delaware Group (GR – Neutron to Surface)
	Rotary Sidewall Cores	Selected Intervals in the Bell & Cherry Canyon Section
Run #2	DLL-MSFL-GR	TD – Base Delaware
	CNL-LDT-GR	TD – Base Delaware
	Rotary Sidewall Cores	Selected Intervals in Morrow

8.) **ANTICIPATED BOTTOM HOLE PRESSURE:**

No overpressured intervals are anticipated. Bottom hole pressures in the 4,500 – 5,300 psi range at total depth may exist.

9.) **Operations:**

The NOS was filed 6/29/2000. The anticipated spud date is August 15, 2000. Estimated drilling time is approximately 35 days.

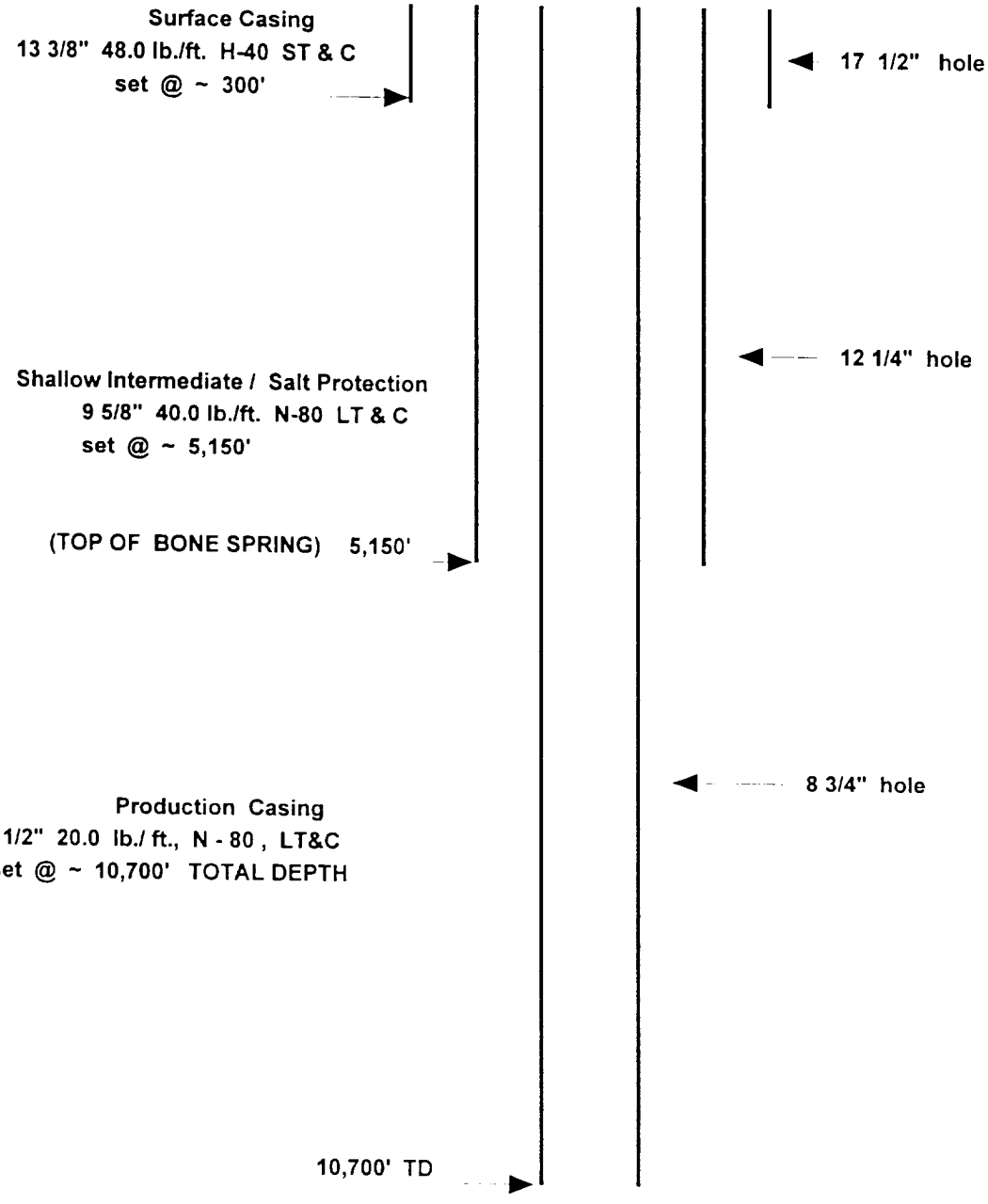
KUKUI Operating Company
601 Vestavia Parkway, Suite 240
Vestavia, Alabama 35216

Larry K. Strider	District Operations Manager	205/823-2977
E. Scott Kimbrough	Consultant	915/682-2500

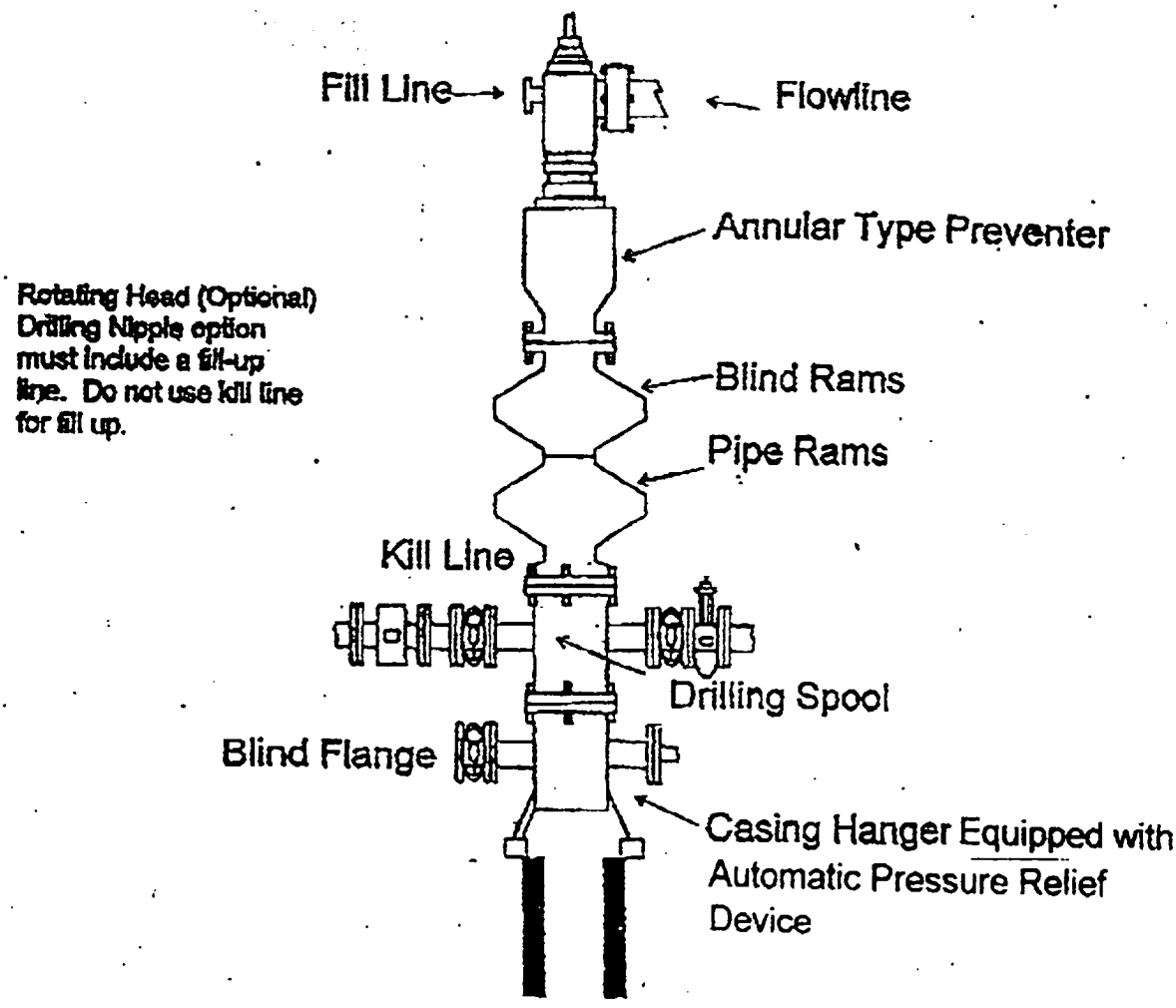
KUKUI Operating Company

Buena Vista '25' Federal #1
SEC. 25 - T 26S - R 25 E
UNDESIGNATED MILE POST - MORROW FIELD
EDDY COUNTY, NEW MEXICO

PROPOSED WELLBORE SCHEMATIC

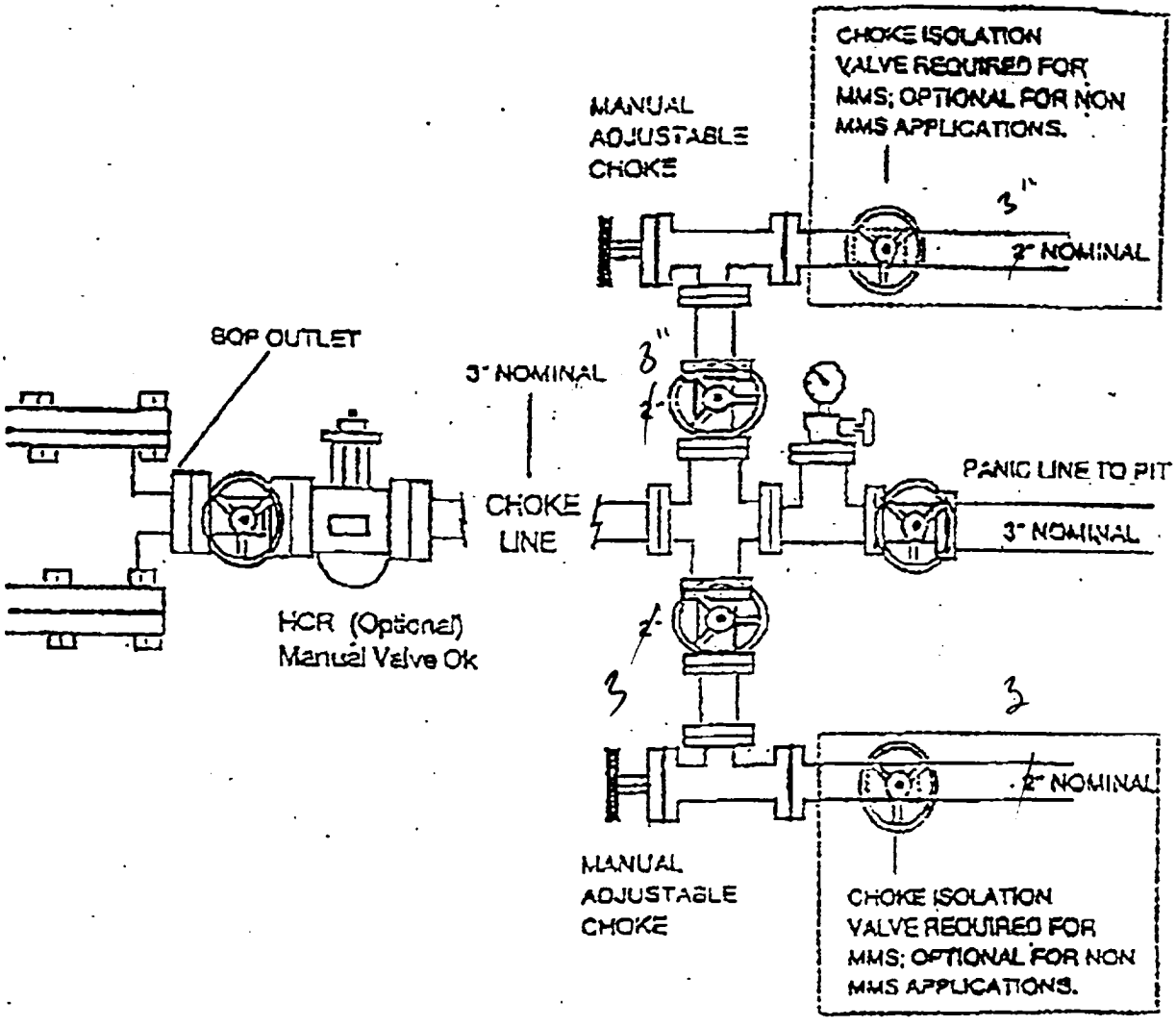


Larry K. Strider 6/8/00



3M/5M/10M Service

KUKUI Operating Company
BOPE Schematic



KUKUI Operating Company
Choke Manifold
3M/5M/10M Service

SURFACE USE AND OPERATIONS PLAN FOR DRILLING, COMPLETION, AND PRODUCING

KUKUI Operating Company

Buena Vista 25 Federal # 1
990 FNL & 1780 FWL, Section 25, T26S, R25E
Eddy County, New Mexico

LOCATED:

Eleven miles south of Whites City, New Mexico

OIL & GAS LEASE:

NMNM104666

RECORD LESSEE:

U.S. Government

BOND COVERAGE:

$25,000 statewide bond of KUKUI Operating Company.

ACRES IN LEASE:

320 acres

GRAZING LEASE:

Mary Foster
P.O. Box 314
Dell City, Texas 79837
(915) 964-2865

POOL:

Morrow

EXHIBITS:

A. Area Road Map
B. Drilling Rig Layout
C. Vicinity Oil & Gas Map
D. Topographic & Location Verification Map
E. Well Location & Acreage Dedication Plat
F. Existing Wells Map

This well will be drilled to a depth of approximately 10,700' (TD).

1. **EXISTING ROADS:**

   A. Exhibit "A" is a portion of a section map showing the location of the proposed well as staked.

   B. Exhibit "C" is a plat showing existing roads in the vicinity of the proposed well site.

2. **ACCESS ROADS:**

   A. **Length and Width:**

   4,204' X 12' of new road (upgrade existing farm road / trail) from the Lukens Federal #1 plugged and abandoned well site to the proposed Buena Vista 25 Federal #1 as highlighted on Exhibit D.

   B. **Surface Material:**

   Existing.

   C. **Maximum Grade:**

   Less than two percent.

   D. **Turnouts:**

   None necessary.

   E. **Drainage Design:**

   Existing.

   F. **Culverts:**

   None necessary.

   G. **Gates and Cattle Guards:**

   Standard 8' cattleguard and gates as requested by Mary Foster .

3. **LOCATION OF EXISTING WELLS:**

   Existing wells in the immediate area are shown on Exhibit "F".

4. **LOCATION OF EXISTING AND/OR PROPOSED FACILITIES:**

   Necessary production facilities for this well will be located on the well pad.

5. **LOCATION AND TYPE OF WATER SUPPLY:**

   It is not contemplated that a water well will be drilled. Water necessary for drilling will be purchased and hauled to the site over existing roads shown on Exhibit "D".

6. METHODS OF HANDLING WASTE DISPOSAL:

A. Drilling fluids will be allowed to evaporate in the drilling pits until the pits are dry.

B. Water produced during tests will be disposed of in the drilling pits.

C. Oil produced during tests will be stored in test tanks.

D. Trash will be contained in a trash trailer and removed from well site.

E. All trash and debris will be removed from the well site within 30 days after finishing drilling and/or completion operations.

7. ANCILLARY FACILITIES:

None required.

8. WELL SITE LAYOUT:

Exhibit "B" shows the relative location and dimensions of the well pad, mud pits, reserve pit, and trash trailer and the location of major rig components. Reserve pit to be lined.

9. PLANS FOR RESTORATION OF THE SURFACE:

A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed. The well site will be cleaned of all trash leaving the site aesthetically pleasing to the extent possible.

B. After abandonment, all equipment, trash and debris will be removed and the site will be clean.

10. OTHER INFORMATION:

A. Topography:

The land surface at the well site is rolling native grass and mesquite.

B. Soil:

Top soil at the well site is loam with rock.

C. Flora and Faunal:

The location is in an area sparsely covered with mesquite and range grasses.

10. OTHER INFORMATION: (CONTINUED)

D. Ponds and Streams:

There are no rivers or streams in the area. Hay Hollow and Washington Spring are approximately 1/2 mile to the North of the proposed location.

E. Residences and Other Structures:

There are no residences within a mile of the proposed well site.

F. Archaeological, Historical, and Cultural Sites:

None observed in this area.

G. Land Use:

Land is being used for cattle grazing.

H. Surface Ownership:

Bureau of Land Management
620 E. Greene Street
Carlsbad, New Mexico 88240

11. OPERATOR'S CONSULTANT:

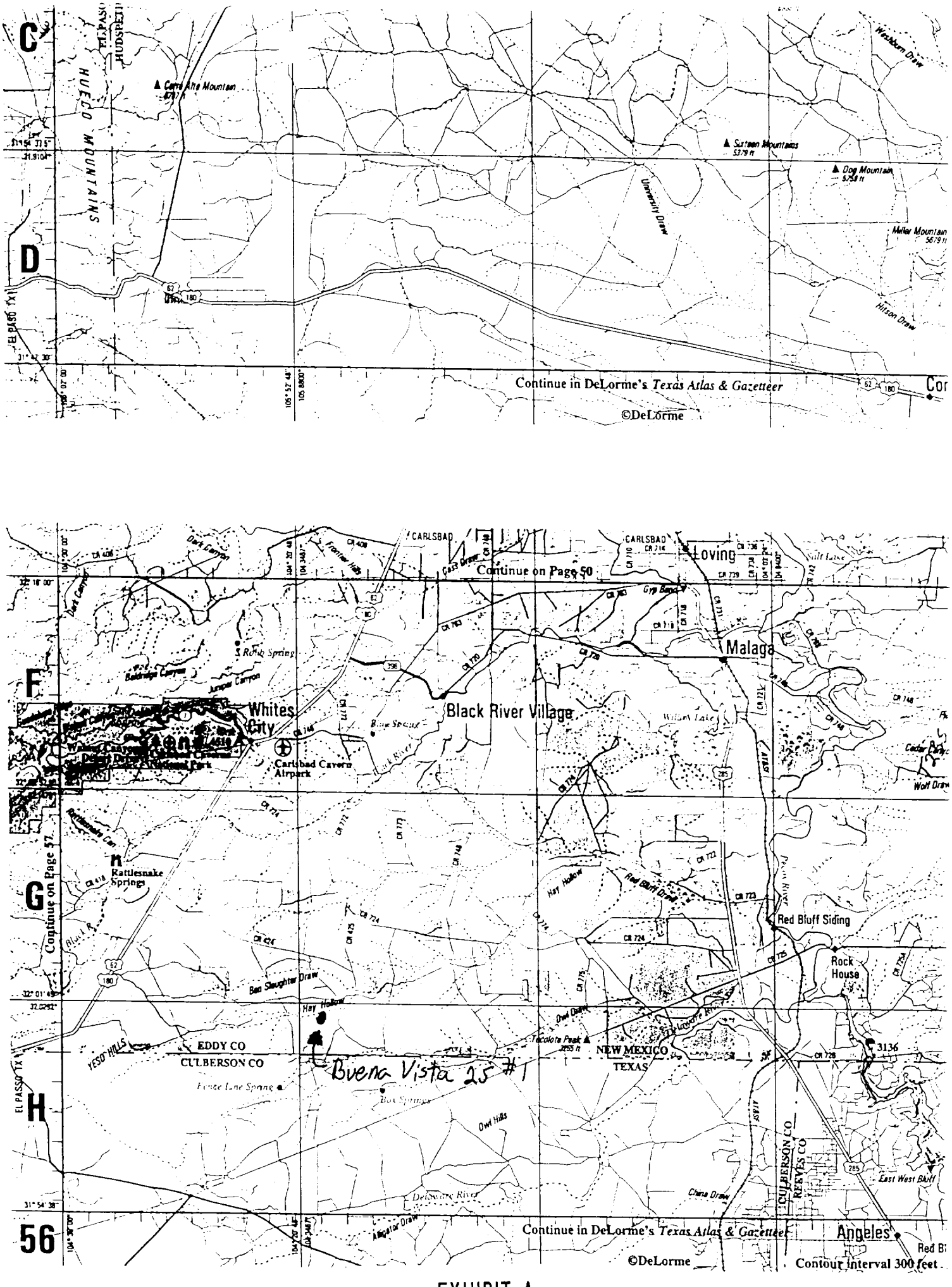
E. Scott Kimbrough
201 West Wall, Suite 803
Midland, TX 79701
Office: (915) 682-2500
Home: (915) 687-4279

12. 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 KUKUI Operating Company and its contractors and subcontractors in conformity with this plan and the terms and conditions under which it is approved.

7/12/00
Date

Larry K. Strider
District Operations Manager


C
D
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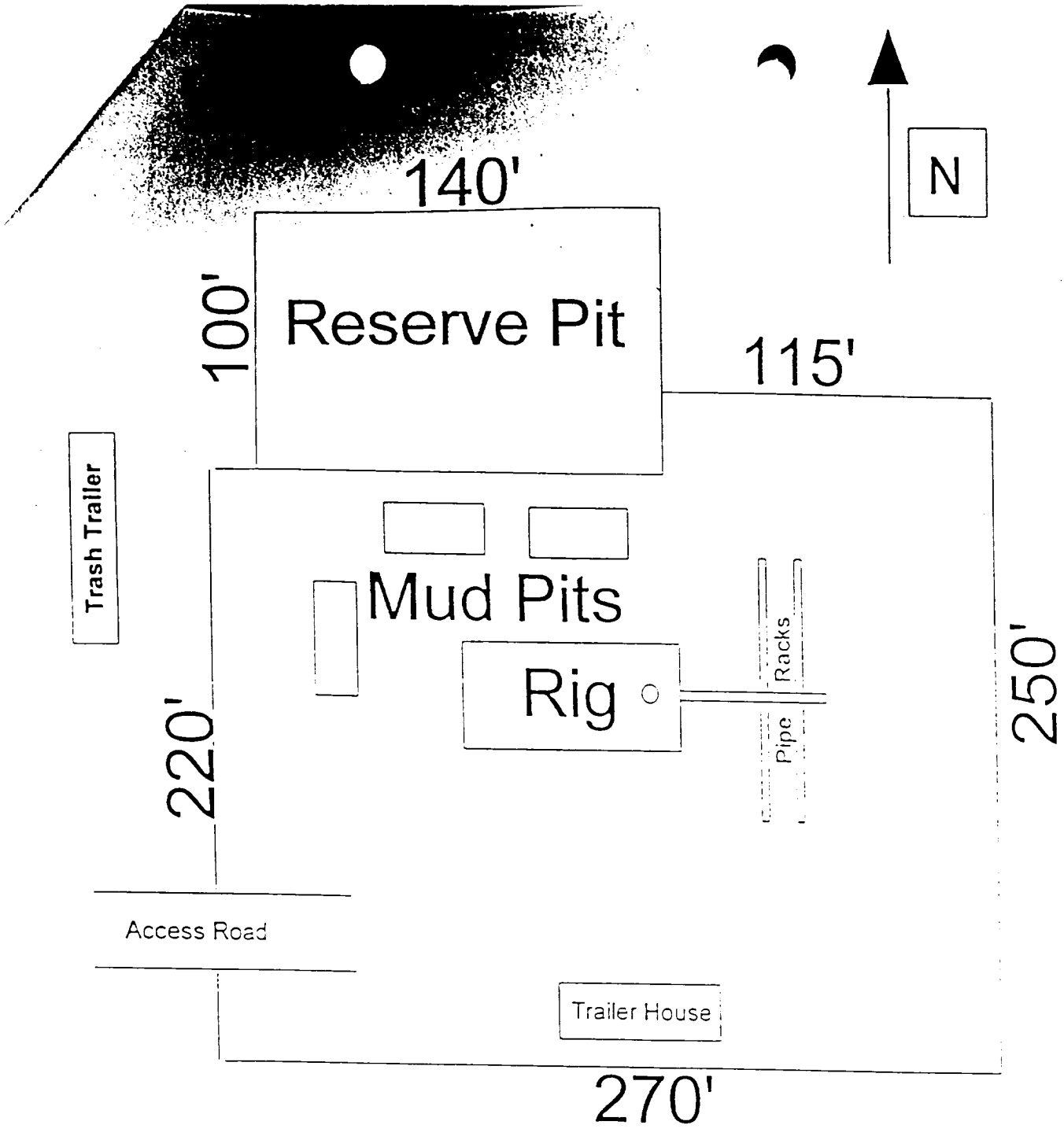
HUECO MOUNTAINS
EL PASO
HUDSPETH
Cerro Alto Mountain
Sixteen Mountains
Dog Mountain
Miller Mountain
University Draw
Wahlberg Draw
Hilton Draw
Continue in DeLorme's Texas Atlas & Gazetteer
©DeLorme
CARLSBAD
Continue on Page 50
Loving
Malaga
Whites City
Carlsbad Caverns National Park
Carlsbad Cavern Airpark
Black River Village
Rattlesnake Springs
Continue on Page 57
Red Bluff Siding
Rock House
EDDY CO
CULBERSON CO
NEW MEXICO
TEXAS
Buena Vista 25 #1
Angeles
Contour interval 300 feet

EXHIBIT A

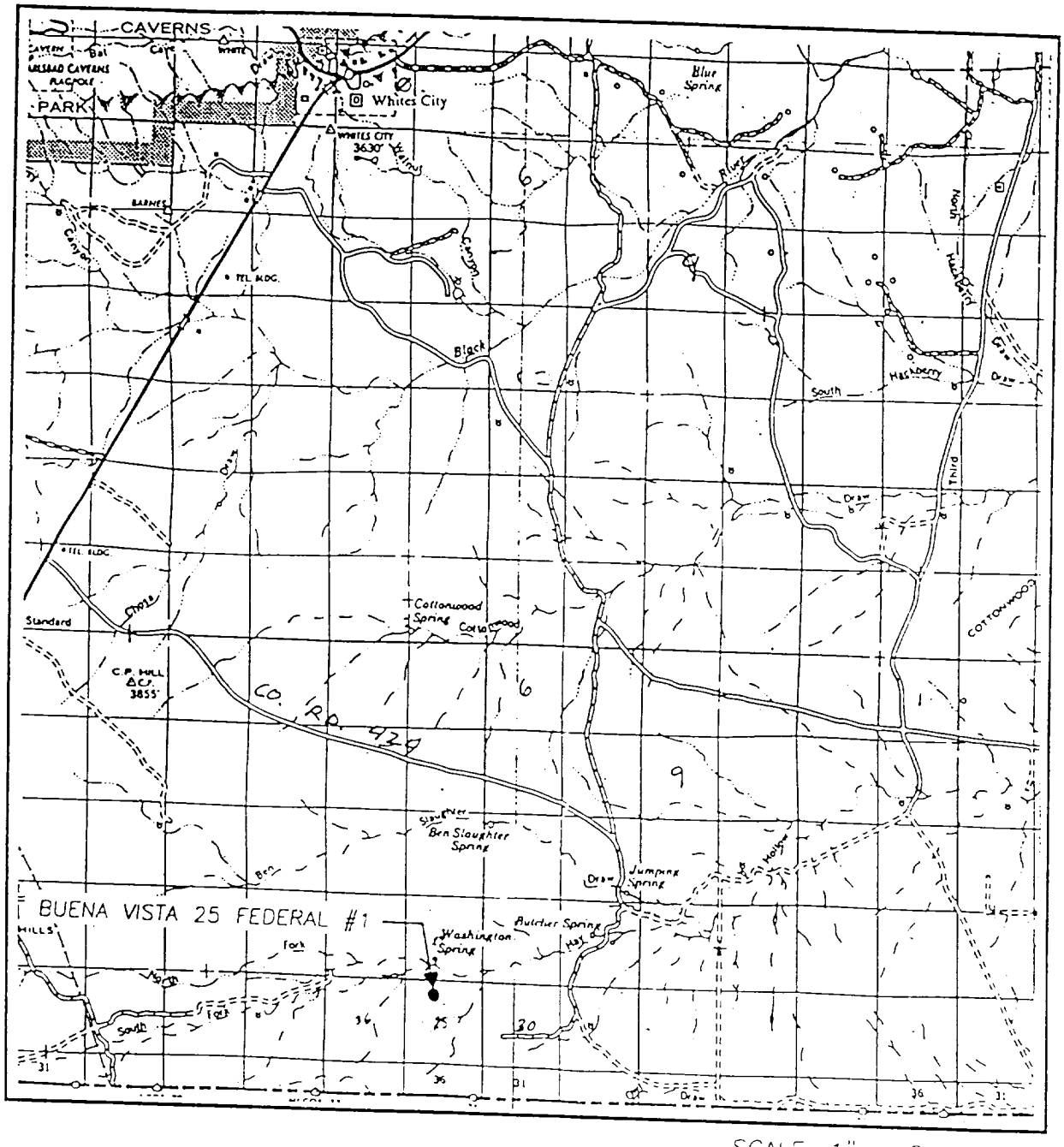


DRILLING RIG LAYOUT
KUKUI Operating Company

SCALE 1" = 50'

Exhibit B

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 25 TWP. 26-S RGE. 25-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 990' FNL & 1780' FWL

ELEVATION 3564

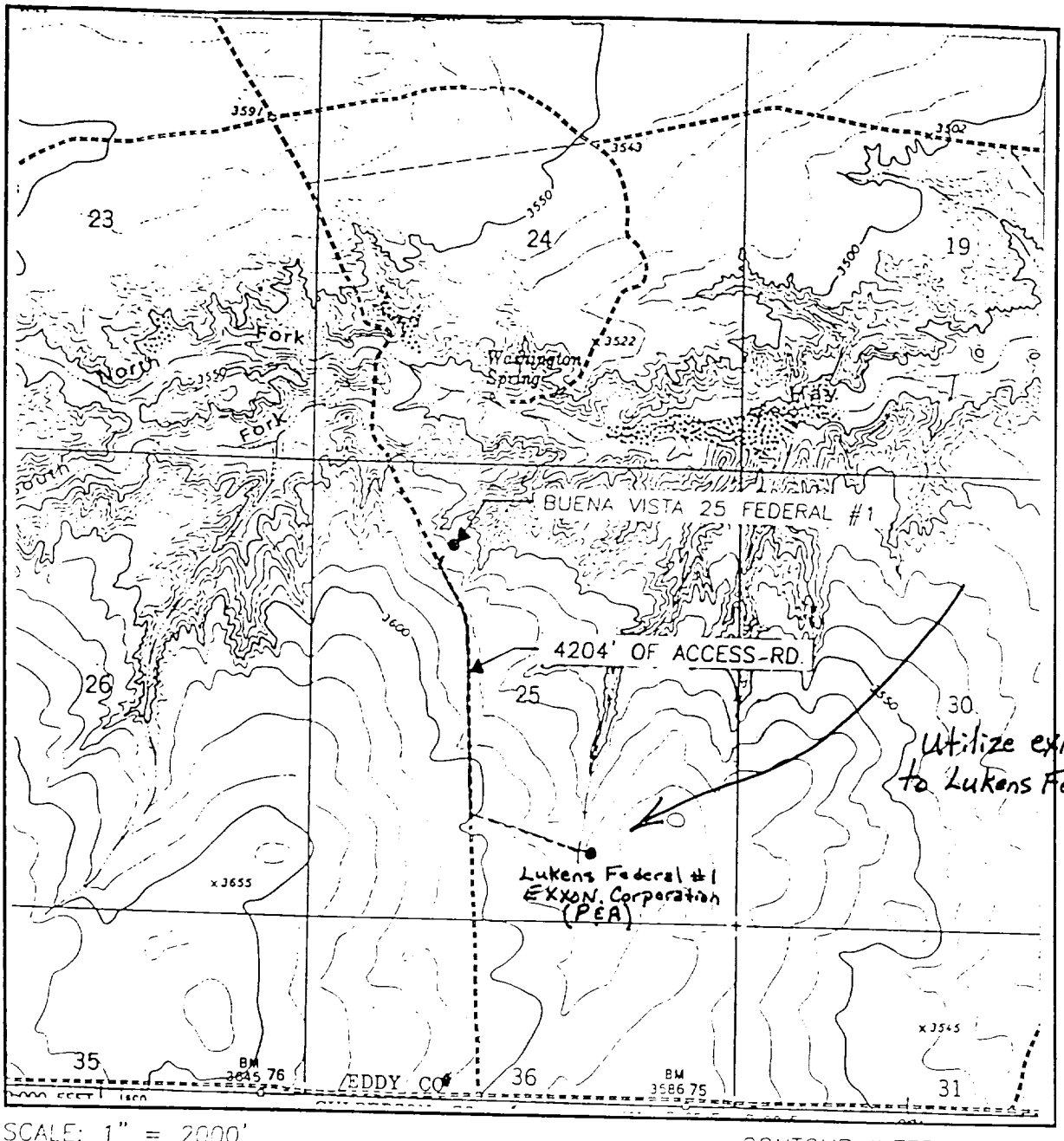
OPERATOR KUKUI OPERATING COMPANY

LEASE BUENA VISTA 25 FEDERAL

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

EXHIBIT C

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL: JUMPING SPRING – 10'

SEC. 25 TWP. 26-S RGE. 25-E

SURVEY N.M.P.M.

COUNTY EDDY

DESCRIPTION 990' FNL & 1780' FWL

ELEVATION 3564

OPERATOR KUKUI OPERATING COMPANY

LEASE BUENA VISTA 25 FEDERAL

U.S.G.S. TOPOGRAPHIC MAP
JUMPING SPRING, N.M.

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

EXHIBIT D

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

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

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

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

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102
Revised February 10, 1994
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

OIL CONSERVATION DIVISION

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
		Undesignated Mile Post - Morrow

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OGRID No.	Operator Name	Elevation
149678	KUKUI OPERATING COMPANY	3564

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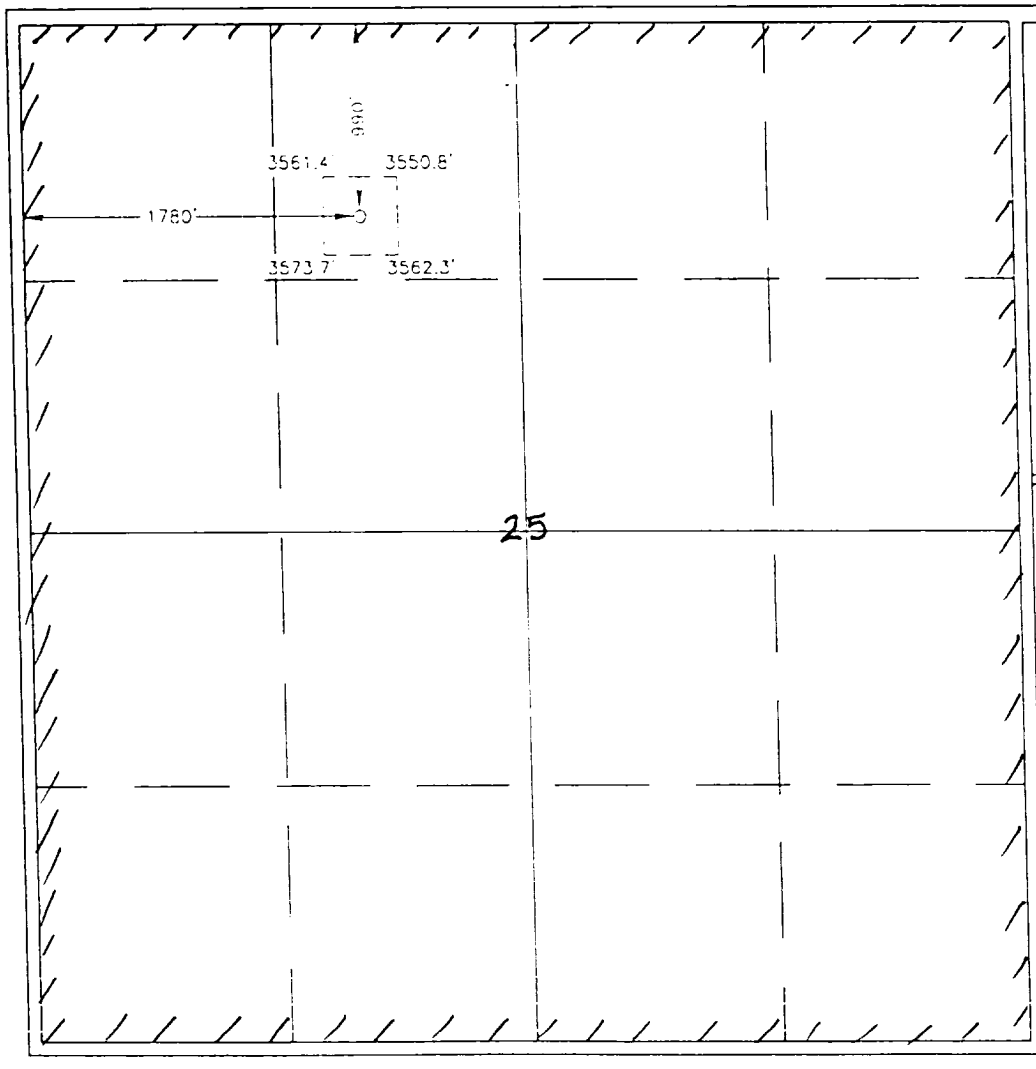
Bottom Hole Location If Different From Surface

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 or Infill	Consolidation Code	Order No.
320			

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

Larry K. Strider
Printed Name

District Operations Mgr.
Title

7/11/00
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 supervison, and that the same is true and correct to the best of my belief.

JULY 1, 2000
Date Surveyed

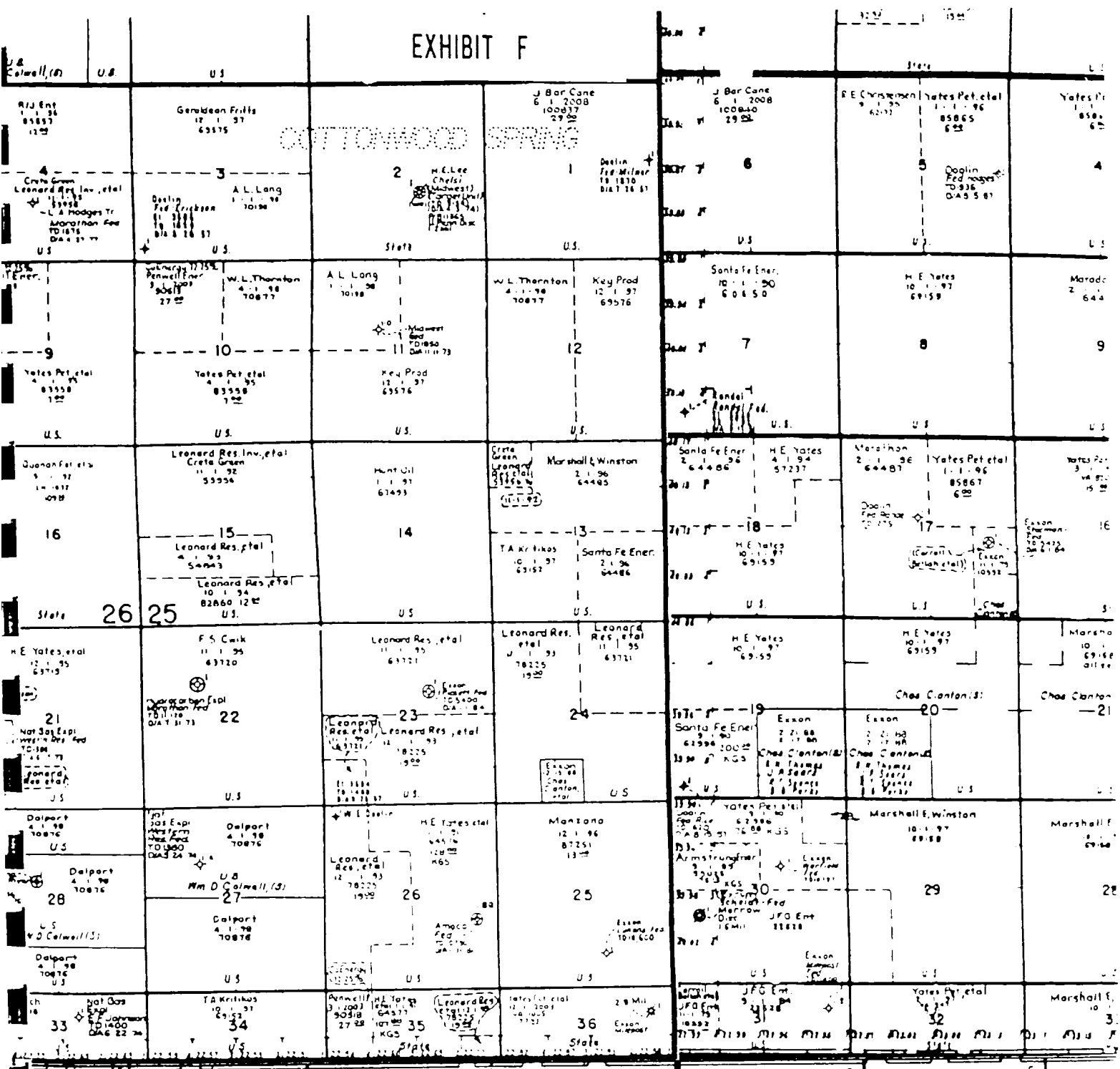
Signature & Seal of Professional Surveyor

7/5/2000

Certificate No. RONALD J. EIDSON 3239
GARY EIDSON 12641
MACON McDONALD 12185

EXHIBIT E

EXHIBIT F


COTTONWOOD SPRING
U.S.
State
Texaco, Mins. TXL
Delaware Ranch Inc.
Bird Creek Res
Utex Expl.
(State)