Form 3160-3
August 199[illegible]

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
2003 OCT -6 PM 2:19
070 Farmington, NM

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMNM-014095

6. If Indian, Allottee or Tribe Name: N/A

1a. Type of Work: ☑ DRILL ☐ REENTER

7. If Unit or CA Agreement, Name and No.: N/A

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

8. Lease Name and Well No.: FEDERAL 35 43-R

2. Name of Operator: ELM RIDGE RESOURCES, INC.

9. API Well No.: 30-045- 31954

3a. Address: P. O. BOX 189, FARMINGTON, NM 87499

3b. Phone No. *(include area code)*: (505) 632-3476

10. Field and Pool, or Exploratory: LYBROOK GALLUP

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface: 2030' FSL & 540' FEL

At proposed prod. zone: SAME

11. Sec., T., R., M., or Blk. and Survey or Area: I-35-24n-8w NMPM

14. Distance in miles and direction from nearest town or post office*: 6 AIR MILES EAST OFNAGEEZI

12. County or Parish: SAN JUAN

13. State: NM

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 540'

16. No. of Acres in lease: 160

17. Spacing Unit dedicated to this well: NESE = 40 ACRES

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 80'

19. Proposed Depth: 5,600'

20. BLM/BIA Bond No. on file: #886201C (BLM - STATE WIDE)

21. Elevations (Show whether DF, KDB, RT, GL, etc.): 6,870' GL

22. Approximate date work will start*: UPON APPROVAL

23. Estimated duration: 3 WEEKS

OCT 2004 RECEIVED OIL CONS. DIV. DIST. 3

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.

Comments

Only other well in quarter-quarter is an Elm Ridge well which will be P&A (see Sundry dated 12-27-02).

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

This action is subject to technical and procedural review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4

cc: BIA, BLM (&OCD), Elm (D & F), Nation

25. Signature: [signature] Name *(Printed/Typed)*: BRIAN WOOD Date: 10-4-03

Title: CONSULTANT PHONE: 505 466-8120 FAX: 505 466-9682

Approved by *(Signature)*: [signature] Name *(Printed/Typed)*: Date: 10-13-04

Title: AFM Office: FFO

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.

NMOCD

State of New Mexico
Energy, Minerals & Mining Resources Department
OIL CONSERVATION DIVISION
2040 South Pacheco
Santa Fe, NM 87505

Form C - 102

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-045-31954	42289	LYBROOK GALLUP

Property Code	Property Name	Well Number
~~19026~~ 24138.	FEDERAL 35	43 R

OGRID No.	Operator Name	Elevation
149052	ELM RIDGE RESOURCES	6870'

Surface Location

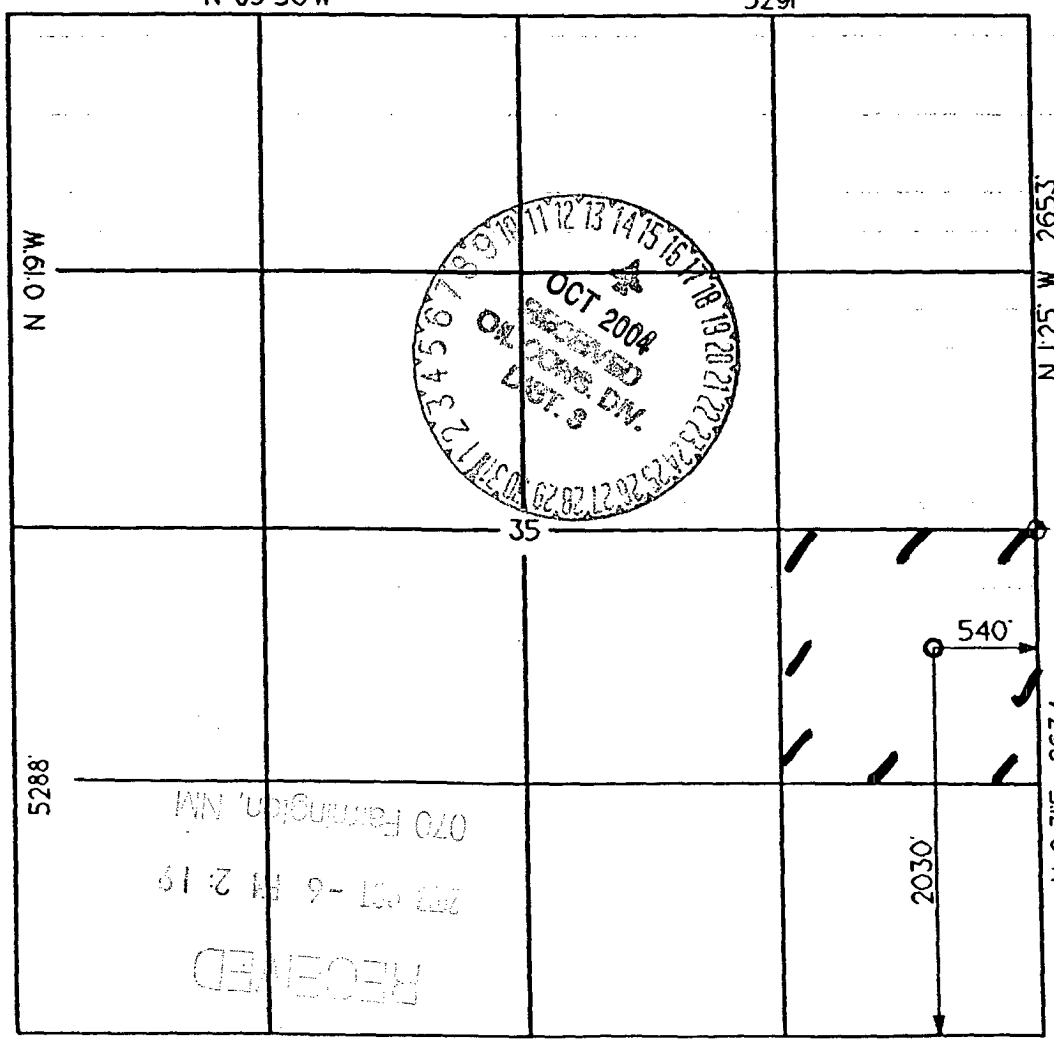
UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet from>	North/South	Feet from>	East/West	County
I	35	24 N.	8 W.		2030'	SOUTH	540	EAST	SAN JUAN

Bottom Hole Location If Different From Surface

UL or Lot	Sec.	Twp.	Rge.	Lot Idn.	Feet from>	North/South	Feet from>	East/West	County

Dedication	Joint ?	Consolidation	Order No.
40			

NO ALLOWABLE WILL 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 that the information contained herein is true and complete to the best of my knowledge and belief.

Signature: Brian Wood

Printed Name: BRIAN WOOD

Title: CONSULTANT

Date: OCT. 4, 2003

SURVEYOR CERTIFICATION

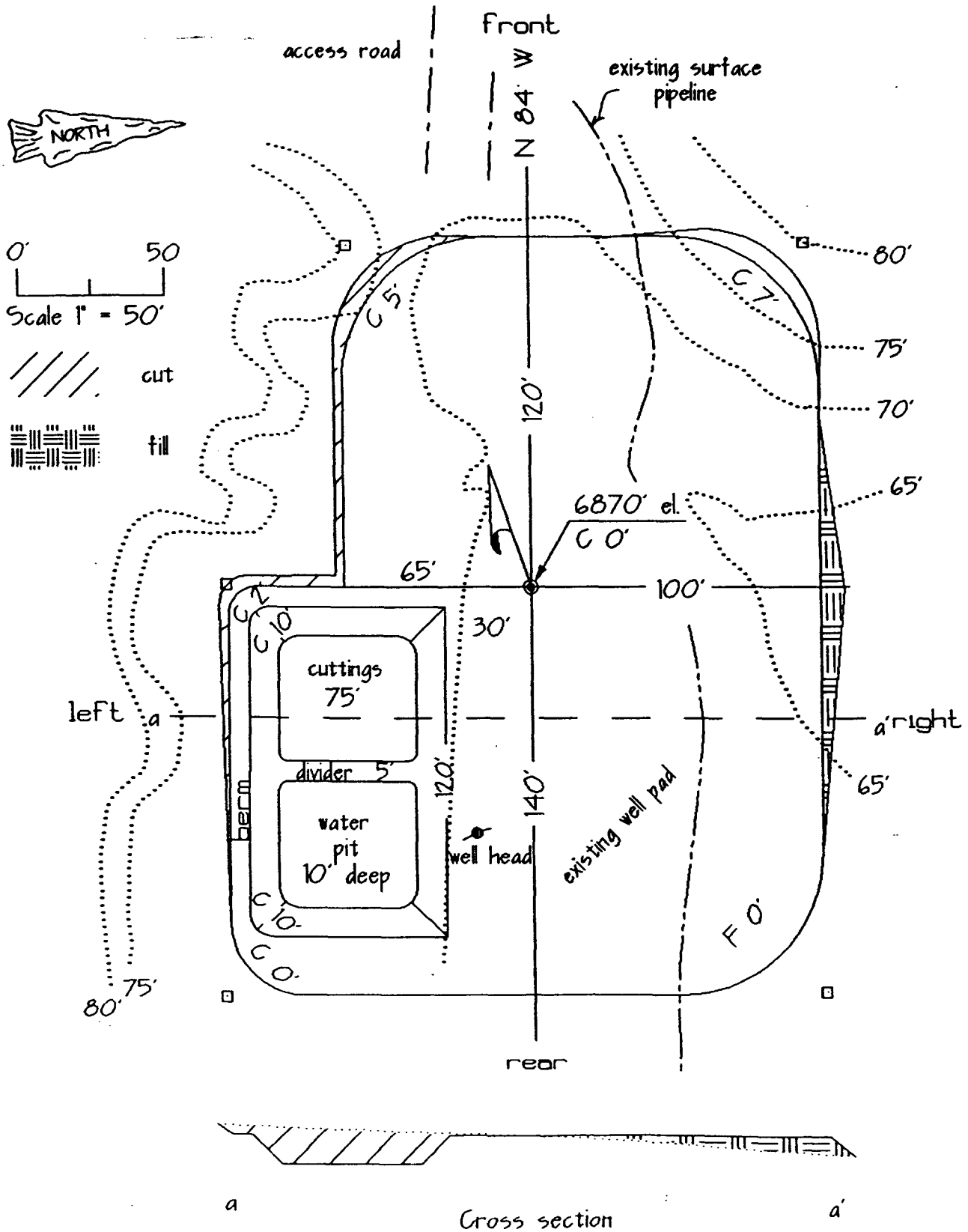
I hereby certify that the well location on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Date of Survey: 9/17/03

Signature and Seal of Professional Surveyor:

GERALD C. HUDDLESTON
NEW MEXICO
6844
REGISTERED LAND SURVEYOR

Federal 35 # 43 R
well pad & section



Elm Ridge Resources, Inc.
Federal 35 43-R
2030' FSL & 540' FEL
Sec. 35, T. 24 N., R. 8 W.
San Juan County, New Mexico

Drilling Program

1. ESTIMATED FORMATION TOPS

Formation Name	GL Depth	KB Depth	Elevation
Nacimiento	000'	12'	+6,870'
Ojo Alamo Sandstone	1,075'	1,089'	+5,795'
Fruitland Coal	1,475'	1,489'	+5,395'
Pictured Cliffs Sandstone	1,820'	1,832'	+5,050'
Point Lookout Sandstone	4,070'	4,082'	+2,800'
Mancos Shale	4,400'	4,412'	+2,470'
Gallup Sandstone	5,220'	5,232'	+1,650'
Total Depth	5,600'	5,612'	+1,270'

* all elevations reflect the ungraded ground level of 6,870'

2. NOTABLE ZONES

Oil &/or Gas Zones	Water Zones	Coal Zone
Fruitland	Nacimiento	Fruitland
Pictured Cliffs	Fruitland	
Gallup	Pictured Cliffs	

Water zones will be protected with casing, cement, and weighted mud. Fresh water encountered during drilling will be recorded by depth, cased, and cemented. Oil and gas shows will be tested for commercial potential based on the well site geologist's recommendations.

3. PRESSURE CONTROL

The drilling contract has not yet been awarded, thus the exact BOP model to be used is not yet known. A typical 3,000 psi model is on PAGE 3.

A ≥3,000 psi BOP and choke manifold system will be installed and tested to 2,000 psi before drilling surface casing plug. It will remain in use until the well is completed or abandoned. A safety valve and sub with a full opening valve to fit the drill pipe and collars will be available on the rig floor in the open position at all times for use when kelly is not in use.

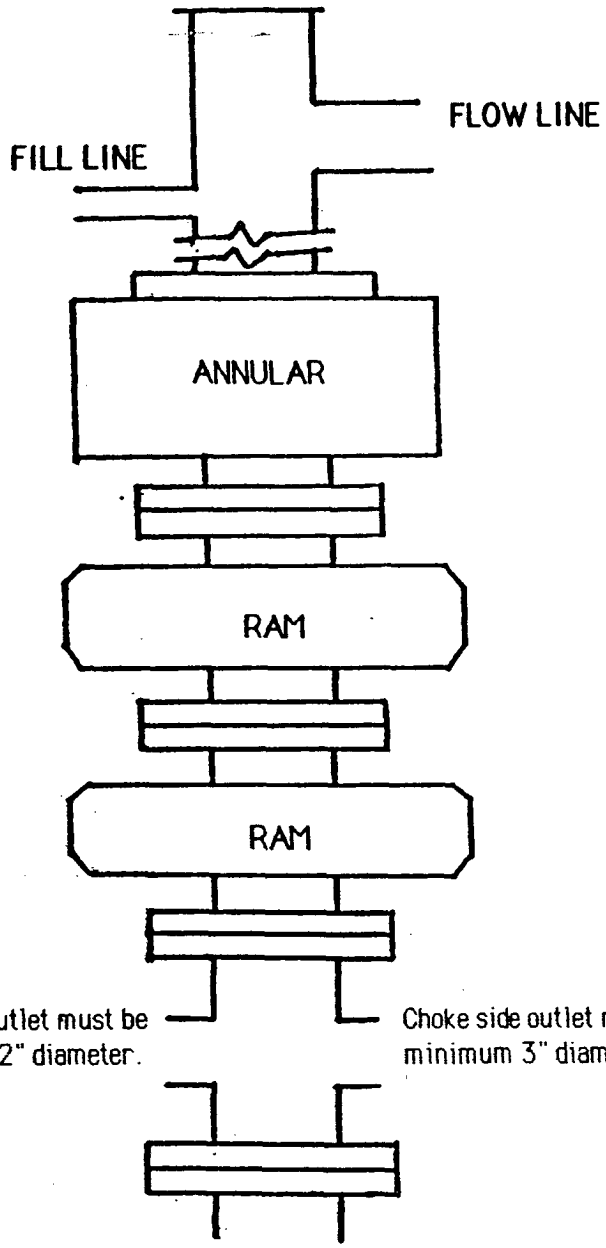
All BOP mechanical and pressure tests will be recorded on the driller's log. BOPs will be inspected and opened and closed at least daily to assure good mechanical working order. Inspections will be recorded on the daily drilling report. Pressure tests will be conducted before drilling out from under all casing strings which are set and cemented in place.

4. CASING & CEMENT

Hole Size	O. D.	Weight (lb/ft)	Grade	Type	Age	GL Setting Depth
12-1/4"	8-5/8"	24	K-55	S T & C	New	350'
7-7/8"	4-1/2"	10.5	J-55	S T & C	New	5,600'

Surface casing will be cemented to the surface with ≈330 cubic feet (≈280 sacks) Class B with 1/4#/sk Flocele + 2% $CaCl_2$ mixed at 1.18 cubic feet per sack and 15.2 pounds per gallon. Volume = 110% excess. Centralizers will be installed on the middle of the shoe joint and every other centralizer thereafter. Thread lock the guide shoe and bottom of float collar only. Use API casing dope.

Production casing will be cemented to the surface in 2 stages with a stage tool set @ ≈3,900' (i. e., over 100' above top of Point Lookout). Centralizers will be installed on the middle of the shoe joint and on every joint thereafter (total ≈2 dozen centralizers). Thread lock the guide shoe, bottom of float collar, and bottom of stage tool only. Use API casing dope.

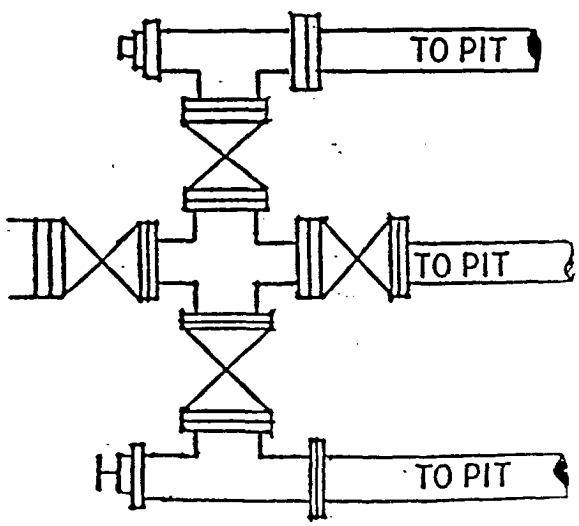


TYPICAL BOP STACK
& CHOKE MANIFOLD

There will be at least 2 chokes and 2 choke line valves (3" minimum). The choke line will be 3" in diameter. There will be a pressure gauge on the choke manifold.

Kill side outlet must be minimum 2" diameter.

Choke side outlet must be minimum 3" diameter.



Kill line will be minimum 2" diameter and have 2 valves, one of which shall be a minimum 2" check valve.

Upper kelly cock will have handle available.
Safety valve and subs will fit all drill string connections in use.
All BOPE connections subjected to well pressure will be flanged, welded, or clamped.

PERMITS WEST, INC.
PROVIDING PERMITS for the ENERGY INDUSTRY

First stage volume will be ≈800 cubic feet (≥105% excess) consisting of ≈195 sacks of Halliburton light with 65/35 poz mix + 1/4 #/sk Flocele + 2% $CaCl_2$ (yield = 1.87 cubic feet per sack, weight = 12.7 pounds per gallon) followed by ≈370 sacks Class B + 2% $CaCl_2$ (yield = 1.18 cubic feet per sack, weight = 15.2 pounds per gallon). Caliper logs will be used to determine actual volume needed.

Second stage volume will be ≈1,800 cubic feet (≥100 % excess) consisting of ≈925 sacks of Halliburton light with 65/35 poz mix + 1/4 #/sk Flocele + 2% $CaCl_2$ (yield = 1.87 cubic feet per sack, weight = 12.7 pounds per gallon) followed by ≈50 sacks of Class B + 2% $CaCl_2$ (yield = 1.18 cubic feet per sack, weight = 15.2 pounds per gallon) to cover the Mesa Verde, Pictured Cliffs, and Ojo Alamo. Caliper logs will be used to determine actual volume needed.

5. MUD PROGRAM

Depth	Type	ppg	Viscosity	Fluid Loss	pH
0' - 350'	Fresh water gel chem	9.0	50	NC	9
350' - TD'	Fresh water gel chem	9.0	38-50	6.0	9

Enough material to maintain mud properties, control lost circulation, and contain a blowout will be at the well site while drilling. Mud will be checked hourly by rig personnel. Material to soak up possible oil or fuel spills will be on site.

6. CORING, TESTING, & LOGGING

No cores or drill stem tests are planned. DIL/GR logs will be run from TD to surface. CNL/FDC logs may be run over selected segments. Samples will be collected every 10' from 200' above the Point Lookout through the Gallup. Samples will be collected every 30' elsewhere.