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ENVIRONMENTAL ASSESSMENT COVER SHEET

ENVIRONMENTAL QUALITY COUNCIL

DS-251

APPLICANT Montana Department of State Lands, Southern Land Office

TYPE OF OPERATION Timber Harvest (160 MBF)

LOCATION Sections 15, 16, and 22, T2N, R31E

PERSON PREPARING EA Bob Dillon

( ) DRAFT EIS  
(x) NO DRAFT EIS

DATE PREPARED 4-23-92 EXPECTED IMPLEMENTATION DATE \_\_\_\_\_

REVIEWED BY Don Kenell 5:40 A.M. RECOMMENDATION ( ) DRAFT EIS

(x) NO DRAFT EIS

REVIEWED BY [Signature] RECOMMENDATION ( ) DRAFT EIS

(x) NO DRAFT EIS

REVIEWED BY [Signature] RECOMMENDATION ( ) DRAFT EIS

(x) NO DRAFT EIS

ADMINISTRATOR'S SIGNATURE [Signature] RECOMMENDATION ( ) DRAFT EIS

(x) NO DRAFT EIS

SUMMARY OF POTENTIAL IMPACTS

PHYSICAL ENVIRONMENT	SIGNIFICANT		INSIGNIFICANT WITH MITIGATION		INSIGNIFICANT AS PROPOSED	
	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
1. <u>TOPOGRAPHY</u>					X	X
2. <u>GEOLOGY</u> ; stability					X	X
3. <u>SOILS</u> ; Quality, distribution					X	X
4. <u>WATER</u> ; Quality, quantity, distribution					X	X
5. <u>AIR</u> ; Quality					X	X

PHYSICAL ENVIRONMENT(cont)

	SIGNIFICANT		INSIGNIFICANT WITH MITIGATION		INSIGNIFICANT AS PROPOSED	
	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
6. <u>UNIQUE, ENDANGERED, FRAGILE, or LIMITED</u> environmental resources					X	X

BIOLOGICAL ENVIRONMENT

1. <u>TERRESTRIAL, AVIAN, and AQUATIC</u> ; species and habitats					X	X
2. <u>VEGETATION</u> ; quantity, quality, species					X	X
3. <u>AGRICULTURE</u> ; grazing, crops, production					X	X

HUMAN ENVIRONMENT

1. <u>SOCIAL</u> ; structures and more					X	X
2. <u>CULTURAL</u> ; uniqueness, diversity					X	X
3. <u>POPULATION</u> ; quantity and distribution					X	X
4. <u>HOUSING</u> ; quantity and distribution					X	X
5. <u>HUMAN HEALTH &amp; SAFETY</u>					X	X
6. <u>COMMUNITY AND PERSONAL INCOME</u>					X	X

HUMAN ENVIRONMENT(cont)	SIGNIFICANT		INSIGNIFICANT WITH MITIGATION		INSIGNIFICANT AS PROPOSED	
	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM	SHORT TERM	LONG TERM
7. <u>EMPLOYMENT</u> ; quantity and distribution					X	X
8. <u>TAX BASE</u> ; local and state revenue					X	X
9. <u>GOVERNMENT SERVICES</u> ; demand on					X	X
10. <u>INDUSTRIAL, COMMERCIAL</u> and <u>AGRICULTURAL</u> activities					X	X
11. <u>HISTORICAL</u> and <u>ARCHAEOLOGICAL</u>					X	X
12. <u>AESTHETICS</u>						
13. <u>ENVIRONMENTAL PLANS</u> and <u>GOALS</u> local and regional					X	X
14. <u>DEMANDS</u> on <u>ENVIRONMENTAL RESOURCES</u> of land, water, air and energy					X	X
15. <u>TRANSPORTATION</u> networks and traffic flows					X	X

Route copies to: Environmental Quality Council (EQC)  
File (#016.4)

PINE RIDGE TIMBER SALE

ENVIRONMENTAL PACKAGE

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PROJECT SUMMARY

PINE RIDGE TIMBER SALE

The proposed Pine Ridge Timber Sale is in three sections of State grazing land in Big Horn County about 20 miles northwest of Hardin. Harvest operations will remove approximately 160 thousand board feet of mature and overmature ponderosa pine (Pinus ponderosa).

Potential impacts, as noted in the attached documents, will be mitigated as follows:

Soils: Logging operations will be limited to times when the ground is dry or frozen. No activity will be allowed from March 16 through June 30.

Water: There is no running water on the sale area. We will incorporate Best Management Practices in all phases of the timber sale. Roads will have adequate drainage, and equipment will not operate in draws.

Air: Slash will be burned in accordance with all applicable regulations, including the Montana Cooperative Smoke Management Plan, in order to minimize air pollution impacts.

Wildlife: A wildlife biologist from the Department of Fish, Wildlife and Parks reviewed the proposed sale. His recommendations have been incorporated into this sale plan.

Vegetation: The timber is scattered, all aged ponderosa pine. The attached silvicultural prescription explains the treatment to be applied to the stands. The planned treatment is designed to achieve the target stand conditions in a biologically sound manner.

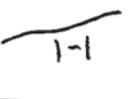
Historical and archaeological Sites: There are no historical or archaeological sites recorded in the sections involved in this sale.

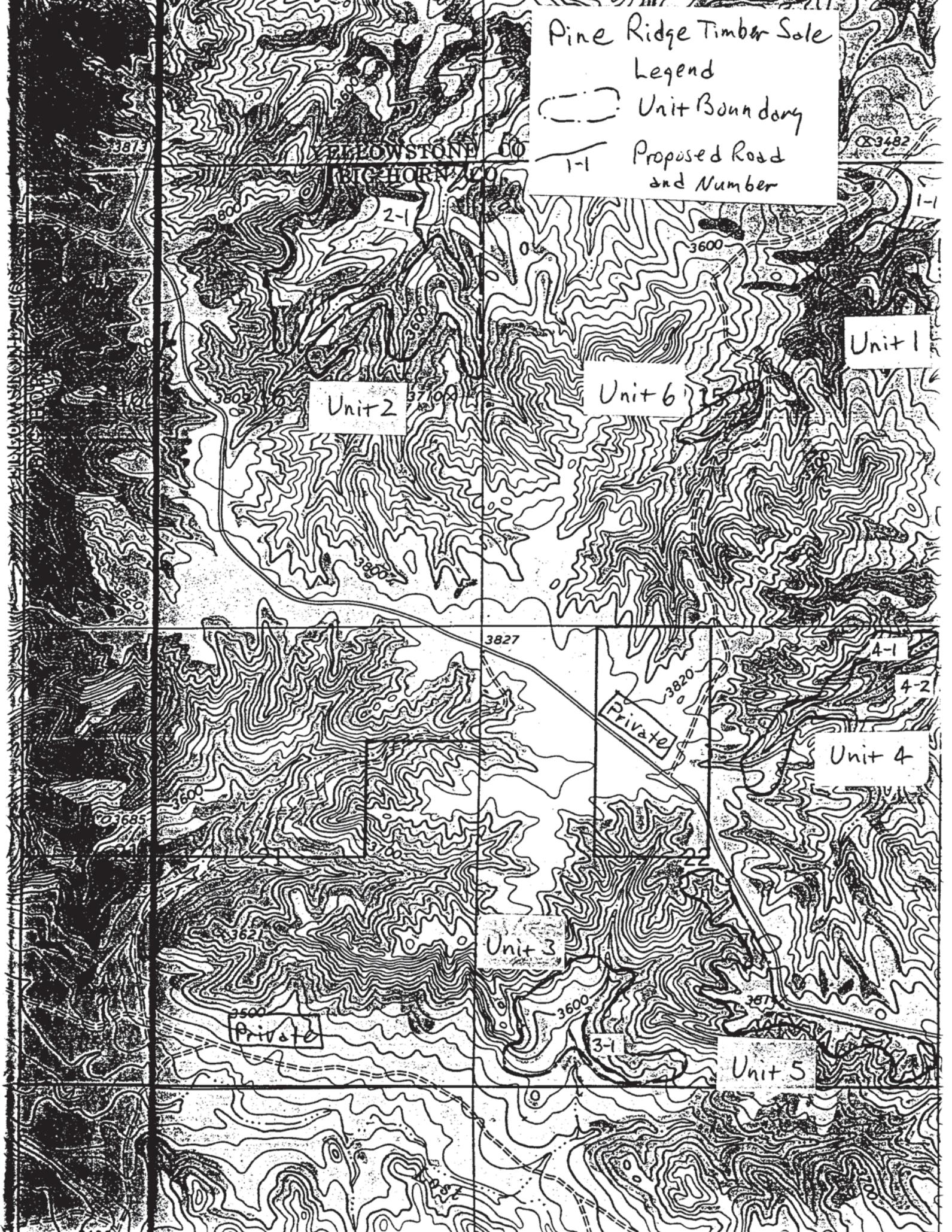
Access: The purchaser will arrange legal access across private land to the timber sale.

# Pine Ridge Timber Sale

## Legend

 Unit Boundary

 Proposed Road and Number



YELLOWSTONE  
BIG HORN

Unit 2

Unit 6

Unit 1

Unit 4

Unit 3

Unit 5

Private

Private

3873

33482

3827

3685

3500

3600

3820

3675

2-1

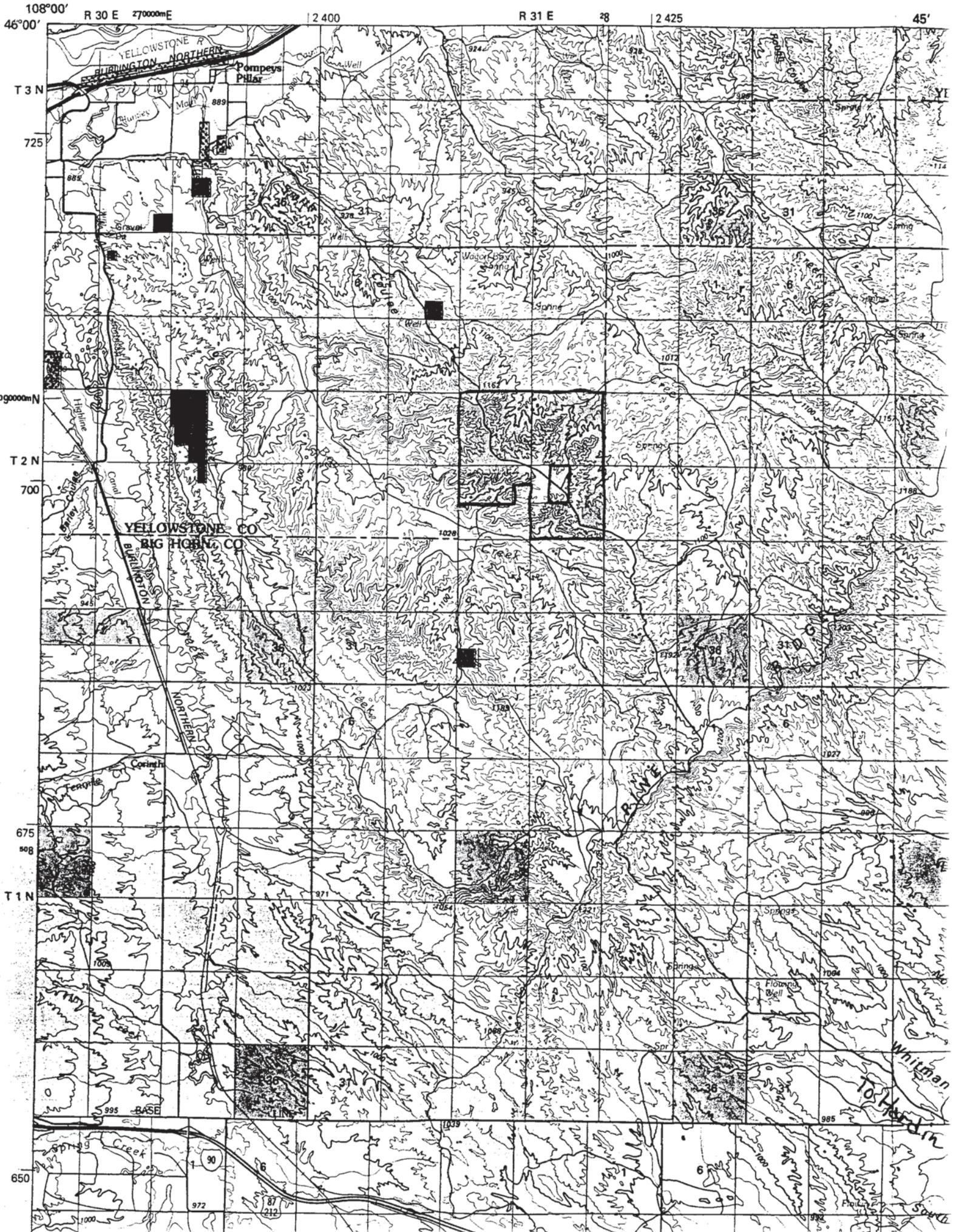
1-1

4-1

4-2

3-1

# HARDIN, MONTANA





## ALTERNATIVES

I considered selling no timber from these sections. However, due to the over-mature nature of the overstory and the large fire scars on most of the trees, I'm sure that many of them would die in the near future. That level of mortality would be unacceptable.

I also considered setting up a diameter limit sale, taking all trees 12 inches and bigger. In some areas this would not leave a suitable stand, and I did not feel that any of the stands were uniform enough to get an accurate volume estimate. Instead, I decided to mark individual cut trees.

My other alternative was to sell more timber, either by adding units or making the units bigger. I didn't think that the timber in the other units I considered was ready to harvest. The unit boundaries I used were often at the slope break, so making the units bigger would mean logging on steeper slopes. Other areas I could have added to make the units bigger I decided to leave for wildlife.

April 29, 1992

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TO: DONALD KENDALL, Area Manager, Southern Land Office  
ROBERT DILLON, Forester, Southern Land Office  
PAT FLOWERS, Supervisor, State Land Management Section

FROM: JEFF COLLINS, Soil Scientist JC

SUBJECT: PINE RIDGE TIMBER SALE, Sections 15,16,22, T2N, R31E

Harvest units are mainly located on well-drained soils of Thedalund-Clapper soils derived from shale. Thedalund soils are moderately deep loams over shale on ridges and valley sideslopes. The Clapper soils are gravelly loams on terrace edges and convex knolls and ridges. Slopes are typically 15-25% and are well suited to tractor operations. Erosion hazard is mod/severe for bared soils. Erosion can be controlled by installing waterbars on skid trails and drainage features on roads.

**General Recommendations-**

Equipment operations should be limited to periods when soils are relatively dry, frozen or snow covered.

I have some concern about skidding in draws within harvest units 2 and 3. The skidding operator and Forest Officer should agree to a general skidding plan for Units 2 and 3 prior to harvest. Draw crossings should be approved by Forest Officer. Ephemeral stream channels may require SMZ's if they meet stream definition (refer to hydro report).

On slopes over 35% dozer brush piling is not recommended, consider whole tree yard or lop and scatter of brush, with possible spot piling on landings. Brush piling operators should be take care to avoid soil displacement.

Install adequate road drainage on existing and new roads using the drainage guide for approximate spacing. You should adjust spacing based on your judgement of runoff, brakes in grade and convenient spots for drainage.

Site adapted grass seed should to applied to newly constructed roads and landings to control erosion and weed encroachment.

No significant soils related problems are expected with this sale if BMP's are followed and operations are done when soils are relatively dry.

May 7, 1992

562

TO: DONALD KENDALL, MANAGER, SOUTHERN LAND OFFICE  
PAT FLOWERS, SUPERVISOR, STATE LAND MANAGEMENT  
ROBERT DILLON, FORESTER, SOUTHERN LAND OFFICE

FROM: GARY FRANK, HYDROLOGIST *gf*

SUBJECT: PINE RIDGE TIMBER SALE (SECTION 15,16,22 T2N R31E).

These comments are based on information I obtained from maps, aerial photographs and telephone conversations with Bob Dillon. My comments are of a general nature because the sale was not reviewed in the field. If you have any question regarding specific management practices or design considerations please feel free to contact me.

In reviewing the proposed sale I have identified several potential watershed concerns: 1) Applicability of House Bill 731 - Montana Streamside Management Act 2) Protection of existing water developments, and 3) Condition and standards of existing roads that are planned for use.

The United States Geologic Survey (USGS) quads of the area indicate the presence of several intermittent stream channels in Units #1,2,3,4 & 6. I realize that these maps do not always accurately portray actual on the ground conditions, especially concerning the presence of stream channels. I also understand that Bob Dillon has recently spent some time in the field with Bill Schultz discussing stream channel definitions and evaluating several examples. I have to trust Bob's judgement in determining whether H.B. 731 is applicable to the draws within the sale area.

Regardless of the status of these draws, skidding should be avoided within draw bottoms. I recommend you establish equipment restriction to prevent equipment operation in all well defined draws. Designated crossing can be utilized with all locations being approved by the Forest Officer.

Provide for adequate surface drainage on all existing and proposed roads. Special attention should be given to draw crossing approaches to prevent concentration of road surface runoff at the crossing.

There are existing water developments in Units #3 &4. These developments should be protected from potential impacts. I suggest you utilize equipment restrictions and directional felling to protect of these improvements.