

**TIMBER SALE APPRAISAL APPENDIX (TE) 04-2420-3**

1. **Sale Name:** Ruby Copper  
 District: Bonners Ferry RD  
 Appraisal Point: Moyie Springs, ID

Sale No. 018                      TIM # 19637  
 Compartment: 731, 732  
 Total Sale Acres: 1809

<b>2. <u>Species Group</u></b>	C	DF, L	LP,AF,H, GF,S,PP	<b>Sawlog Total</b>	<b>Non-Saw Total</b>	<b>Total All Products</b>
--------------------------------	---	-------	---------------------	-------------------------	--------------------------	-------------------------------

Net Volume	657 CCF 293 MBF	1310 CCF 647 MBF	8303 CCF 4115 MBF	<b>10,270 CCF 5,055 MBF 32,049 Tons</b>	<b>1,222 CCF 810 MBF 4,092 Tons</b>	<b>11,492 CCF 5,865 MBF 36,141 Tons</b>
---------------	--------------------	---------------------	----------------------	-------------------------------------------------	---------------------------------------------	-------------------------------------------------

**3. Weighted Averages For Species Grouping**

	Net	Gross					Appraisal	WWPA	Esc.	WWPA
Species	Volume	Volume	Percent	Gross	Number	Average	Conv.	Species	Conv.	Index
Group	CCF	CCF	Defect	Logs /ccf	Trees	DBH	Factor	Index	Factor	Name
C	657	688	4	21.8	6,609	9.7				
Total (T) Wt. Avg. (A)	T	T	A	A	T	A	NA	NA	NA	NA

	Net	Gross					Appraisal	WWPA	Esc.	WWPA
Species	Volume	Volume	Percent	Gross	Number	Average	Conv.	Species	Conv.	Index
Group	CCF	CCF	Defect	Logs /ccf	Trees	DBH	Factor	Index	Factor	Name
DF	1,142	1,229	7	20.5	9,042	10.3				
L	168	176	5	25.9	1,833	9.0				
Total (T) Wt. Avg. (A)	T 1,310	T 1,405	A 7	A 21.2	T 10,875	A 10.1	NA	NA	NA	NA

	Net	Gross					Appraisal	WWPA	Esc.	WWPA
Species	Volume	Volume	Percent	Gross	Number	Average	Conv.	Species	Conv.	Index
Group	CCF	CCF	Defect	Logs /ccf	Trees	DBH	Factor	Index	Factor	Name
LP	4,071	4,527	10	19.0	27,814	10.0				
AF	1,886	2,115	11	14.4	11,855	11.1				
H	1,291	1,374	6	16.2	7,954	10.7				
GF	723	814	11	15.8	4,086	10.5				
S	329	336	2	21.6	3,599	9.0				
PP	3	4	13	35.7	61	8.2				
Total (T) Wt. Avg. (A)	T 8303	T 9170	A 9	A 17.3	T 55,369	A 10.3	NA	NA	NA	NA

Combined Species Average DBH: 10.2  
 Sale Wide Conversion Factor (MBF/CCF): .5104  
 WWPA indices for each species group: NA

4. Skidding

a. Tractor:	Acres 421	Volume 6751 ccf	Distance 725 ft
-------------	-----------	-----------------	-----------------

b. Skyline:	Acres 200	Volume 3519 ccf	Distance 450 ft
-------------	-----------	-----------------	-----------------

5. Transportation                      Haul Route                      Appraised to Moyie Springs, ID

(a) Road Miles – Sale Center to Appraisal Point:

(1) Paved:

Road Number	Termini	Miles
US95	From FS road 2517 to the junction with US2.	28.7
US2	From US Hwy 95 to the junction with county road 83.	5.7
C83	From US Hwy 2 to the mill.	0.5
Total		34.9

(2) Unpaved:

Road Number	Termini	Miles
403	From m.p. 3.0 to the junction with road 2509.	3.0
2509	From road 403 to the junction with road 2517.	3.4
2517	From road 2509 to the junction with road US95.	5.8
Total		12.2

Total Haul Miles (Paved and Unpaved) = 47.1

(b) Road Maintenance

(1) Roads to be Maintained:

Road No.	Name	Termini	Surface	Miles
403	Copper Ridge	From road 403A to the junction with road 2509.	Native	6.80
403A	Copper Ridge A	From road 2529 to the junction with road 403.	Native	0.25
2509	Spruce Lake	From m.p. 3.4 to the junction with road 2517.	Gravel	3.40
2517	Copper Falls	From road 2517G to the junction with US95.	Gravel	5.80
2517E	Copper Falls E	From road 2517F to the junction with road 2517.	Native	0.60
2517F	Copper Falls F	From m.p. 0.1 to the junction with road 2517E.	Native	0.10
2517G	Copper Falls G	From m.p. 0.14 to the junction with road 2517.	Native	0.14
2527	Bottom	From m.p. 0.4 to the junction with road 2517.	Native	0.40
2528	Line Creek	From end of road to the junction with road 2517.	Native	0.50
2529	Brass Creek	From m.p. 3.77 to the junction with road 403A.	Native	3.77
2529A	Brass Creek A	From end of the road to the junction with road 2529.	Native	1.53
2529B	Brass Creek B	From end of the road to the junction with road 2529.	Native	1.60
Total				24.89

**(2) Recurrent Maintenance:**

Road Number	Miles	Cost/ccf/mile	%Total Vol.	Cost/CCF	
				Purchaser	Forest Service
403 native	3.0	.11	100	.33	
2509 gravel	3.4	.13	100	.44	
2517 gravel	5.8	.13	100	.75	
Total	12.2			1.52	

**(3) Surface Replacement:**

Road Number	Miles	Cost/CCF/Mile	% Total Vol.	Cost/ CCF
403	3.0	.06	100	.18
2509	3.4	.12	100	.41
2517	5.8	.12	100	.70
Total	12.2			1.29

**(4) Roadside Vegetative Brushing:**

Road Number	Miles	Cost/CCF/Mile	% Total Vol.	Cost/ CCF
403	3.0	.07	100	.21
2509	3.4	.07	100	.24
2517	5.8	.07	100	.41
Total	12.2			0.86

**(5) Road Maintenance Summary:**

	Cost/CCF	Cost/Ton
Recurrent Maintenance (Purchaser)	1.52	
Recurrent Maintenance (FS)		
Surface Replacement (FS)	1.29	
Roadside Vegetative Brushing (FS)	.86	
Total Deposit	2.15	.68
Total Road Maintenance	3.67	

**6. Slash Disposal**

	Cost/CCF	Cost/Ton
Forest Service	23.05	6.55
Purchaser	9.87	
Total	32.92	

**7. Erosion Control**

(See Erosion Control Plan in Timber Sale Report) \$ 0.44/CCF

**8. Other Environmental Protection Costs**

Description	Unit Costs	Total Cost
None		0

## 9. Temporary Road Costs

Reference: Cost estimating procedures taken from the R1 Cost Estimating Guide for Road Construction, dated 2/08.

### (a) Construction: 0.5 miles

Average Side Slope: 20 %		
Average Timber Volume: 30 Mbf/Acre		
	Cost/Mile	Cost
1. Clearing and Grubbing (Table T-1)	3330	
2. Excavation (Table T-1)	1650	
3. Seeding (Table T-1)	690	
4. Obliteration (Table T-3) level 3	2500	
5. Total Unit Cost (1+ 2 + 3 + 4)	8170	
6. Basic Cost (5) x Length		4085
7. Drainage:		
___ dips x Cost/dip (Section 157)		
__1__ CMP x Cost/CMP (Table T-2)18x28		685
8. Subtotal (6 + 7)		4770
9. Mobilization (Table T-4) (8 + 7%) rounded		334
10. Subtotal (8 + 9)		5104
11. Minus Profit (10 / 1.06)		-289
12. Total Construction Cost		4815

### (b) Reconstruction: 0.4 miles

	Miles or Hours	Unit Cost	Total Cost
Reconstruction:	0.4 mi brushing	500/mi	200
Obliteration:	0.4 mi	1000/mi	400
Mobilization:			100
Total Reconstruction			700

### (c) Total Temporary Road Miles = 0.9

Total Temporary Road Cost

= \$ 5515

Cost Estimate per CCF (All Species)

= \$ .54 /CCF

## 10. Specified Roads - (See Schedule of Items for more detailed information)

Road No.	Miles		Purchaser Costs	
	Construction	Reconstruction	Construction	Reconstruction
403		6.80		8,745.77
403A		0.25		631.49
2509		3.40		24,871.65
2517		5.80		29,401.38
2517E		0.60		788.13
2517F		0.10		194.91
2517G		0.14		242.37
2527		0.40		550.85
2528		0.50		1,432.20
2529		3.77		18,236.33
2529A		1.53		4,121.49
2529B		1.60		4,441.85
<b>Total</b>		<b>24.89</b>		<b>93,658.42</b>

Total Purchaser Costs: \$ 93,658.42  
 Estimated Cost per CCF (All Species): \$ 9.12/CCF

---

**11. Base Rates**

Adjustments of Base Rates (to protect regeneration costs)	Costs
Min NFF: Sale volume 11,492 x \$0.25/CCF	2,873
Regeneration Costs	170,323
Regeneration Costs plus min NFF	173,196
Total value at minimum rates *	33,352
Amount of increase needed	139,844
Increase per CCF	13.62

\* Total Value at Minimum Rates:

Species	Rate/ccf	Volume	Total Value
C	5.00	657	3,285
DF,L	3.00	1310	3,930
AF,GF,H,LP,S	3.00	8300	24,900
PP	5.00	3	15
Non-sawlog	1.00	1,222	1,222
Total		11,492	33352

Species Group	C	DF,L	AF,GF,H,LP, PP,S	Sawlog Total	Non-sawlog Total	Total Rate/Ton
Base Rate/CCF	18.62/CCF	16.62/CCF	16.62/CCF	16.75/CCF	1.00/CCF	4.79/Ton

**12. Base Indices**

Base Indices		NA	
--------------	--	----	--