



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Sparta-GNA
Sale KL-341-2020-GF9718-02

District: Northeast

Date: March 13, 2020

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$71,220.39	\$0.00	\$71,220.39
		Project Work:	\$0.00
		Advertised Value:	\$71,220.39



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Timber Description

Location: T. 7s R.44e Sec. 32

Stand Stocking: 40%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	14	0	90
White Fir	16	0	90
Ponderosa Pine	12	0	90
Western Larch	12	0	90

Volume by Grade	6" - 7"	8"+	Camprun	12"+	8" - 11"	Total
Douglas - Fir	96	587	0	0	0	683
White Fir	0	0	24	0	0	24
Ponderosa Pine	0	0	0	191	239	430
Western Larch	31	53	0	0	0	84
Total	127	640	24	191	239	1,221

Comments: Pond Vales Used: Local Pond Values, February 2020
 Log Markets: La Grande, Elgin, Pilot Rock.
 Other Costs (no Profit & Risk): None
 Other Costs (with Profit & Risk to be added):
 Pre-commercial thinning, \$14,250.00
ROAD MAINTENANCE
 General Road Maintenance:
 Limited Use Road 6.16 miles x \$750.00 per mile = \$4,620.00
 Closed Road 1.22 miles x \$900.00 per mile = \$1,098.00
 Roadway Brushing 1.05 miles x \$800.00 per mile = \$840.00
 Total Road Maintenance: \$6,558.00, \$5.37 per MBF



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Logging Conditions

Combination#: 1	Douglas - Fir	100.00%
	White Fir	100.00%
	Ponderosa Pine	100.00%
	Western Larch	100.00%
Logging System:	Wheel Skidder	Process: Harvester Head Delimiting
yarding distance:	Medium (800 ft)	downhill yarding: Yes
tree size:	Small / Thinning 10in (90 Bft/tree), 18-20 logs/MBF	
loads / day:	9	bd. ft / load: 4200
cost / mbf:	\$136.77	
machines:	Forwarder Harvester	



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Logging Costs

Operating Seasons: 1.00	Profit Risk: 10%
Project Costs: \$0.00	Other Costs (P/R): \$14,250.00
Slash Disposal: \$0.00	Other Costs: \$0.00

Miles of Road

Road Maintenance: \$5.37

Dirt	Rock (Contractor)	Rock (State)	Paved
0.0	0.0	0.0	0.0

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	2.0	4.0
White Fir	\$0.00	2.0	4.0
Ponderosa Pine	\$0.00	2.0	4.0
Western Larch	\$0.00	2.0	4.0



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Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
\$136.77	\$5.91	\$3.59	\$130.62	\$11.67	\$28.86	\$0.00	\$2.00	\$0.00	\$319.42
White Fir									
\$136.77	\$5.91	\$3.59	\$130.62	\$11.67	\$28.86	\$0.00	\$2.00	\$0.00	\$319.42
Ponderosa Pine									
\$136.77	\$5.91	\$3.59	\$130.62	\$11.67	\$28.86	\$0.00	\$2.00	\$0.00	\$319.42
Western Larch									
\$136.77	\$5.91	\$3.59	\$130.62	\$11.67	\$28.86	\$0.00	\$2.00	\$0.00	\$319.42

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$403.13	\$83.71	\$0.00
White Fir	\$0.00	\$319.42	\$0.00	\$0.00
Ponderosa Pine	\$0.00	\$341.09	\$21.67	\$0.00
Western Larch	\$0.00	\$375.71	\$56.29	\$0.00



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Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00
White Fir	0	\$0.00	\$0.00
Ponderosa Pine	0	\$0.00	\$0.00
Western Larch	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	683	\$83.71	\$57,173.93
White Fir	24	\$0.00	\$0.00
Ponderosa Pine	430	\$21.67	\$9,318.10
Western Larch	84	\$56.29	\$4,728.36

Gross Timber Sale Value

Recovery: \$71,220.39

Prepared By: Mike Billman

Phone: 541-362-6760

Sparta-GNA
KL-341-2020-GF9718-02
Other Costs

Maintenance Limited Use Road

Number of Miles to be Maintained: 6.16
Cost per Mile: \$ 750.00
Total Cost: \$ 4,620.00
Cost/Mbf: \$ 3.78

Sparta-GNA
KL-341-2020-GF9718-02
Other Costs

Maintenance Closed Road

Number of Miles to be Maintained: 1.22
Cost per Mile: \$ 900.00
Total Cost: \$ 1,098.00
Cost/Mbf: \$ 0.90

Sparta-GNA
KL-341-2020-GF9718-02
Other Costs

Roadway Clearing and Brushing

Number of Miles to be Maintained: 1.05
Cost per Mile: \$ 800.00
Total Cost: \$ 840.00
Cost/Mbf: \$ 0.69

SPARTA-GNA
KL-341-2020-GF9718-02
Other Costs

Project #1 Fell, Lop and Scatter, Pre-Commercial Thinning

Number of Acres to be Thinned:	95
Cost per Acre: \$	150.00
Total Cost:	<u>\$ 14,250.00</u>
Cost/Mbf: \$	11.67

Sparta-GNA
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Project Costs

Project #4 Fell, Skid, Process and Deck Submerchantable Material (Included in Logging costs)

Total Sub-Sawlog Volume:	148 MBF
Fell, Skid, Process and Deck/MBF:	\$136.00
Total	<u>\$20,128.00</u>
per MBF	\$16.48

Summary of Project Work



Sparta-GNA **KL-341-2020-GF9718-02**

Project No. 1: Pre-Commercial Thinning	\$14,250.00
Project No. 2: Roadway Brushing and Clearing	Included in Rd. Mnt.
Project No. 3: Road Closures	Included in Rd. Mnt.
Project No. 4: Removal of Sub-Merch Logs	Included in Logging Cost
	Total: \$14,250.00

Sparta-GNA
KL-341-2020-GF9718-02
Cruise Report



"STEWARDSHIP IN FORESTRY"

SALE NAME: Sparta-GNA

LEGAL DESCRIPTION:

Portions of Sections 29, 30, 31 and 32, T7S, R44E, W.M., Baker County, Oregon.

BOUNDARY LINES:

Unit boundaries are posted with "Timber Sale Boundary" signs, marked with orange paint and blue flagging.

ACREAGE:

Gross Sale Acreage: 275 Acres
Exclusion Acreage 0 Acres
Net Sale Acreage: 275 Acres

Mapping was accomplished using a handheld Global Positioning System unit with the data run on the district Geographical Information System Program.

TREATMENT:

The Timber Sale is a partial cut harvest.

CRUISE METHOD:

Variable plot cruise with all plots measured.

BASAL AREA FACTOR:

Area	BAF	Type Acreage
Area 1	20 BAF	275

MEASUREMENTS AND GRADING:

- DBH and Height were measured on all "in" trees for measure plots.
- All trees were graded using the segment system.

TREE HEIGHT:

All trees were measured to a fixed diameter outside bark. This height is usually taken as high up the bole as possible, where the cruiser can clearly see the bole, and the taper remains constant (usually 6 or 8 inches). The log segments are broken out and graded accordingly.

MINIMUM D.B.H:

9.0" DBH for sawlog volume.

DIAMETER STANDARDS:

1" diameter class

BTR:

Standard ratios were used. See attached species tables.

FORM FACTOR:

Form factor was measured or estimated at 16' for each tree. Each tree was assigned its own FF.

FORM POINT:

All trees were sighted at DBH.

VOLUME COMPUTATION:

All cruise data was input and run at the district on Atterbury's Super Ace program.

FINAL CRUISE RESULTS:

AREA	CV%	SE%	ACRES
Area 1	93.4	12	275

TIMBER DESCRIPTION

SAWLOG VOLUME:

This volume was obtained from the variable plot cruise. All material graded camprun. See grade table for minimum standards.

TOTAL SAWLOG VOLUME

Species	Ave. DBH	Gross Vol/Acre (bf)	Net Vol/Acre (bf)	Net Sale Vol (Mbf)
Douglas-fir	14.8	2,697	2,477	683
White fir	16.2	103	96	24
Ponderosa pine	12.4	2,340	2,092	430
W larch	12.1	359	305	84
	Total	5,498	4,971	1,221

TOTAL NET SAWLOG VOLUME: 1,221 MBF

TC PSTATS		PROJECT STATISTICS							PAGE	1	
		PROJECT SPARTA							DATE	3/16/2020	
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt	
07S	44E	32	44,45,53	VP		275.00	60	110	S	E	
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL			60	110	1.8						
CRUISE			51	110	2.2	16,792	.7				
DBH COUNT											
REFOREST											
COUNT											
BLANKS			9								
100 %											
STAND SUMMARY											
SAMPLE TREES		TREES /ACRE	AVG DBH	BOLE LEN	REL DEN	BASAL AREA	GROSS BF/AC	NET BF/AC	GROSS CF/AC	NET CF/AC	
PONDEROS	51	34.6	12.4	46	8.2	28.9	2,340	2,092	540	540	
DOUG FIR	50	21.1	14.8	48	6.6	25.2	2,697	2,477	573	573	
W LARCH	7	4.7	12.1	45	1.1	3.7	359	305	80	80	
CON FIR	2	.6	16.2	53	0.2	.9	103	96	20	20	
TOTAL	110	61.1	13.3	47	16.1	58.7	5,498	4,971	1,214	1,214	
CONFIDENCE LIMITS OF THE SAMPLE											
68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR											
CL	68.1	COEFF	SAMPLE TREES - BF				# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
PONDEROS		81.5	11.4	100	113	126					
DOUG FIR		55.9	7.9	152	165	178					
W LARCH		68.2	27.7	65	90	115					
CON FIR		4.6	4.3	148	155	162					
TOTAL		68.6	6.5	127	136	145	188	47	21		
CL	68.1	COEFF	SAMPLE TREES - CF				# OF TREES REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
PONDEROS		69.5	9.7	25	27	30					
DOUG FIR		47.2	6.7	34	36	39					
W LARCH		57.5	23.4	17	22	27					
CON FIR		6.6	6.2	30	32	34					
TOTAL		58.4	5.6	29	31	33	136	34	15		
CL	68.1	COEFF	TREES/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
PONDEROS		177.9	22.9	27	35	43					
DOUG FIR		161.3	20.8	17	21	26					
W LARCH		415.7	53.6	2	5	7					
CON FIR		543.6	70.1	0	1	1					
TOTAL		120.9	15.6	52	61	71	583	146	65		
CL	68.1	COEFF	BASAL AREA/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
PONDEROS		133.9	17.3	24	29	34					
DOUG FIR		127.3	16.4	21	25	29					
W LARCH		374.7	48.3	2	4	6					
CON FIR		543.4	70.1	0	1	2					
TOTAL		87.5	11.3	52	59	65	306	77	34		
CL	68.1	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
PONDEROS		138.1	17.8	1,719	2,092	2,465					
DOUG FIR		131.5	17.0	2,057	2,477	2,897					
W LARCH		343.9	44.4	170	305	441					
CON FIR		544.7	70.3	29	96	164					

PROJECT STATISTICS

PROJECT SPARTA

TWP	RGE	SC	TRACT	TYPE	ACRES			PLOTS	TREES	CuFt	BdFt
07S	44E	32	44,45,53	VP	275.00			60	110	S	E
CL	68.1	COEFF	NET BF/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.00	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15		
TOTAL		93.4	12.0	4,372	4,971	5,570	348	87	39		
CL	68.1	COEFF	NET CUFT FT/ACRE				# OF PLOTS REQ.		INF. POP.		
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
PONDEROS		128.6	16.6	451	540	630					
DOUG FIR		128.6	16.6	478	573	668					
W LARCH		348.9	45.0	44	80	117					
CON FIR		545.4	70.4	6	20	34					
TOTAL		87.8	11.3	1,076	1,214	1,351	308	77	34		

Log Stock Table - MBF

T07S R44E S32 TyVP	275.00
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Project: SPARTA
Acres 275.00

Page 1
Date 3/16/2020
Time 4:14:05PM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	Def %	Net MBF	% Sp	Net Volume by Scaling Diameter in Inches													
									2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+		
DF		DO	3M	12	7		7	1.1			7											
DF		DO	3M	14	17		17	2.5			17											
DF		DO	3M	16	717	8.4	657	96.4			71	105	147	161	133	41						
DF		Totals			742	8.1	681	49.8			96	105	147	161	133	41						
PP		PU		12	8		8	1.3		8												
PP		PU		14	6		6	1.0		6												
PP		PU		16	21	3.1	20	3.5		9	9	2										
PP		DO	3M	12	13		13	2.3			13											
PP		DO	3M	14	9		9	1.5			9											
PP		DO	3M	16	587	11.5	519	90.3			91	120	119	107	51	33						
PP		Totals			644	10.6	575	42.1			23	122	122	119	107	51	33					
WL		DO	3M	12	3		3	3.7			3											
WL		DO	3M	16	95	15.3	81	96.3			28	19	27	7								
WL		Totals			99	14.8	84	6.1			31	19	27	7								
WF		DO	3M	16	28	6.1	26	100.0			3		10	14								
WF		Totals			28	6.1	26	1.9			3		10	14								
Total		All Species			1,512	9.6	1,367	100.0			23	251	245	302	289	183	73					