Timber Sale Appraisal
Enright Station

Sale TL-341-2022-W00488-01

District: Tillamook

Date: September 28, 2021

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$3,364,556.66	$66,811.50	$3,431,368.16
		Project Work:	($451,670.00)
		Advertised Value:	$2,979,698.16

Timber Description

Location:

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	22	0	100
Western Hemlock / Fir	16	0	100
Alder (Red)	14	0	100

Volume by Grade	2S	3S & 4S 6"-11"	8" - 9"	10" - 11"	6" - 7"	Total
Douglas - Fir	5,317	1,763	0	0	0	7,080
Western Hemlock / Fir	851	303	0	0	0	1,154
Alder (Red)	0	0	110	80	113	303
Total	6,168	2,066	110	80	113	8,537

Comments: Additional Costs – Enright Station
Pond Values Used: September 2021
Region: Astoria, Forest Grove, and Tillamook

Western red cedar and other cedars stumpage price = $1,550.00/MBF - $416.83/MBF = $1,133.17/ MBF

Pulp (Conifer and Hardwood) Price = $ 2.50/ Ton

BRAND AND PAINT ALLOWANCE = $2.00/ MBF
FUEL COST ALLOWANCE = $3.00/ Gallon
HAULING COST ALLOWANCE
Hauling cost equivalent to $950 daily truck cost
$95.00/hr x 10 hr. = $950

Other costs with profit and risk to be added:
Non-project Rd. 1: 1+70 sta. $185/sta. = $314.50
Closing non-project: = $50
Optional project rd. (EE to FF) = $6,330
Closing optional project rd. = $200

TOTAL Other costs with profit and risk to be added = $6,894.50

Other Costs with No Profit and Risk Added:
Move-in Machine Cleaning: $1,000/machine x 2 machines x 2 seasons = $4,000
Slash piling and sorting (Cable Settings): $5/ac x 149ac. = $745
Heliport Construction: $500/unit x 2 unit = $1,000

Ditch Cleaning and Bank Sluff Removal:
Mobilization: two times – dump truck w/ tilt bed & small excavator: $900 x 2 = $1,800
Small excavator (Cat 312 or equivalent): 30 hours @ $135/ hour = $4,050
Dump truck: 30 hours @ $90/ hour = $2,700

TOTAL Other Costs no Profit and Risk added = $14,295

ROAD MAINTENANCE:
Spot Rocking: 20cy/MMBF/mile x 8.537 MMBF x $15/cy x 10 miles / 8,537 MBF = $3.00/MBF
Interim Grading: $1,150/mile x 10 miles x 2 times/ 8,537 MBF = $2.69/MBF
Final Maintenance Grading: $1,500/mile x 10 miles/ 8,537 MBF = $1.76/MBF
Final Maintenance Compaction: $950/mile x 6 miles/ 8,537 MBF = $0.67/MBF

Total Road Maintenance: = $8.12/MBF

Logging Conditions

Combination#: 1

Douglas - Fir	32.52%
Western Hemlock / Fir	31.42%
Alder (Red)	30.58%

Logging System: Cable: Medium Tower >40 - <70
Process: Harvester Head Delimbing
yarding distance: Short (400 ft)
downhill yarding: No
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 10
bd. ft / load: 4000
cost / mbf: $194.51
machines:
Log Loader (A)
Forwarder
Harvester
Tower Yarder (Medium)

Combination#: 2

Douglas - Fir	20.05%
Western Hemlock / Fir	17.83%
Alder (Red)	16.16%

Logging System: Cable: Medium Tower >40 - <70
Process: Harvester Head Delimbing
yarding distance: Medium (800 ft)
downhill yarding: No
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 5
bd. ft / load: 4000
cost / mbf: $389.02
machines:
Log Loader (A)
Forwarder
Harvester
Tower Yarder (Medium)

Combination#: 3

Douglas - Fir	15.45%
Western Hemlock / Fir	17.88%
Alder (Red)	19.73%

Logging System: Cable: Medium Tower >40 - <70
Process: Harvester Head Delimbing
yarding distance: Long (1,500 ft)
downhill yarding: No
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 4
bd. ft / load: 4000
cost / mbf: $486.27
machines:
Log Loader (A)
Forwarder
Harvester
Tower Yarder (Medium)

Combination#: 4

Douglas - Fir	31.98%
Western Hemlock / Fir	32.87%
Alder (Red)	33.54%

Logging System: Shovel
Process: Harvester Head Delimbing
yarding distance: Medium (800 ft)
downhill yarding: No
tree size: Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 14
bd. ft / load: 4000

cost / mbf: $95.43

machines: Forwarder
Harvester

Logging Costs

Operating Seasons:	2.00	**Profit Risk:**	10%
Project Costs:	$451,670.00	**Other Costs (P/R):**	$6,894.50
Slash Disposal:	$0.00	**Other Costs:**	$14,295.00

Miles of Road

Road Maintenance: $8.12

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
Western Hemlock / Fir	$0.00	5.0	4.0
Alder (Red)	$0.00	2.0	2.8

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
$246.89	$8.12	$1.03	$118.75	$0.81	$37.56	$0.00	$2.00	$1.67	$416.83
Western Hemlock / Fir									
$248.81	$8.12	$1.03	$47.50	$0.81	$30.63	$0.00	$2.00	$1.67	$340.57
Alder (Red)									
$250.27	$8.12	$1.03	$169.64	$0.81	$42.99	$0.00	$2.00	$1.67	$476.53

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$845.81	$428.98	$0.00
Western Hemlock / Fir	$0.00	$624.26	$283.69	$0.00
Alder (Red)	$0.00	$697.03	$220.50	$0.00

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Date: September 28, 2021

Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	$0.00	$0.00
Western Hemlock / Fir	0	$0.00	$0.00
Alder (Red)	0	$0.00	$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	7,080	$428.98	$3,037,178.40
Western Hemlock / Fir	1,154	$283.69	$327,378.26
Alder (Red)	303	$220.50	$66,811.50

Gross Timber Sale Value

Recovery: $3,431,368.16

Prepared By: Cole Lindsay

Phone: 503-842-2545

OREGON DEPARTMENT OF FORESTRY
"STEWARDSHIP IN FORESTRY"

PROJECT SUMMARY SHEET

Sale: Enright Station

CONSTRUCTION

Point	E to F	12+20	stations =	$21,255.90
Point	K to L	9+30	stations =	$16,552.35
Point	O to P	2+80	stations =	$4,956.90
Point	W to X	8+00	stations =	$16,053.10
Point	CC to DD	2+70	stations =	$1,951.05
			SUBTOTAL CONSTRUCTION	**$60,769.30**

IMPROVEMENT

Point	A to B	328+20	stations =	$193,658.01
Point	C to D	42+90	stations =	$15,764.91
Point	G to H	11+40	stations =	$2,288.30
Point	I to J	21+30	stations =	$8,066.39
Point	M to N	11+50	stations =	$1,797.55
Point	Q to R	75+00	stations =	$7,641.40
Point	S to T	23+30	stations =	$6,787.30
Point	U to V	11+70	stations =	$1,399.75
Point	Y to Z	142+50	stations =	$74,255.95
Point	AA to BB	24+40	stations =	$10,267.80
			SUBTOTAL IMPROVEMENT	**$321,927.36**

RECONSTRUCTION

Point	I to J	5+20	stations =	$2,390.01
			SUBTOTAL RECONSTRUCTION	**$2,390.01**

SPECIAL PROJECTS

Move Gate		Remove and reinstall	$2,000.00
ROW Scattering		Buck Mt. and North Side Roads	$7,560.00
Pump Chance		Point GG	$1,260.00
Stockpile Construction		Point HH	$31,575.00
Brush	12.7	Miles of road	$13,335.00
		SUBTOTAL SPECIAL PROJECTS	**$55,730.00**

MOVE IN	**$10,853.33**
GRAND TOTAL	**$451,670.00**

SUMMARY OF CONSTRUCTION COST

Sale: **Enright Station** Road: **A to B**

Construction -	0+00	stations	Improvement -	328+20	stations	Reconstruction -	0+00	stations
	0.00	miles		6.22	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Side cast	0.031	acres @	$860.00	per acre =	$26.66	
				TOTAL CLEARING AND GRUBBING		**$26.66**

IMPROVEMENT: EXCAVATION -

Pullback	85	cy. @	$2.00	per c.y.=	$170.00	
				TOTAL EXCAVATION		**$170.00**

IMPROVEMENT: ENDHAUL -

Pullback	243+00	to	244+00	30	cy. @	$3.47	per c.y.=	$104.10	
Pullback	244+50	to	245+00	55	cy. @	$3.41	per c.y.=	$187.55	
Spread & compact				85	cy. @	$0.50	per c.y.=	$42.50	
							TOTAL ENDHAUL		**$334.15**

CULVERTS - MATERIALS & INSTALLATION

Culverts						
120	LF of 18"	$2,400.00				
			60	LF of 48"	$18,248.00	
Culvert Stakes & Markers						
11	markers	$88.00				
				TOTAL CULVERTS		**$20,736.00**

ROCK

0+00 to	77+40	920	cy. of	Crushed	@	$22.54	per c.y.=	$20,736.80	
77+40 to	316+80	5,350	cy. of	Crushed	@	$23.48	per c.y.=	$125,618.00	
326+70 to	328+20	100	cy. of	Pit-Run	@	$11.04	per c.y.=	$1,104.00	
Culvert Bedding	18" Pipes	40	cy. of	Crushed	@	$21.40	per c.y.=	$856.00	
Landing Rock	Point B	70	cy. of	Pit-Run	@	$11.05	per c.y.=	$773.50	
Fill Armor	290+60	50	cy. of	Pit-Run	@	$11.10	per c.y.=	$555.00	
Spot Rock	316+80 - 326+70	40	cy. of	Crushed	@	$24.85	per c.y.=	$994.00	
Subgrade Reconstruction	244+00	10	cy. of	Riprap	@	$11.03	per c.y.=	$110.30	
Energy Dissipator	18" Pipes	20	cy. of	Riprap	@	$11.27	per c.y.=	$225.40	
Replacement Fill	290+60	300	cy. of	Pit-Run	@	$11.10	per c.y.=	$3,330.00	
Leveling	TBD	50	cy. of	Leveling SP	@	$7.68	per c.y.=	$384.00	
Energy Dissipator	48" Pipe	10	cy. of	Riprap	@	$11.10	per c.y.=	$111.00	
Bedding/Backfill	48" Pipe	40	cy. of	Crushed	@	$23.06	per c.y.=	$922.40	
								TOTAL ROCK	**$155,720.40**

SPECIAL PROJECTS

Pull ditch and endhaul -	20.00	stations @	$130.00	per station	$2,600.00	
Grade and shape road -	328.20	stations @	$22.00	per station	$7,220.40	
Roll subgrade w/ vibratory roller prior to rocking -	328.20	stations @	$17.50	per station	$5,743.50	
Remove culverts from state lands	5.00	@	$1,000.90	total	$1,000.90	
Grass seed and fertilize -	0.10	acres @	$280.00	per acre	$28.00	
Mulching -	0.100	acres @	$780.00	per acre	$78.00	
				TOTAL SPECIAL PROJECTS		**$16,670.80**

GRAND TOTAL **$193,658.01**

SUMMARY OF CONSTRUCTION COST

Sale: **Enright Station** Road: **C to D**

Construction -	0+00	stations	Improvement -	42+90	stations	Reconstruction -	0+00	stations
	0.00	miles		0.81	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Widening	0.028	acres @	$860.00	per acre =	$24.08	
				TOTAL CLEARING AND GRUBBING		**$24.08**

IMPROVEMENT: EXCAVATION -

Widening	87	cy. @	$2.00	per c.y.=	$174.00	
				TOTAL EXCAVATION		**$174.00**

IMPROVEMENT: ENDHAUL -

Widening	17+00	to	18+00	87	cy. @	$3.34	per c.y.=	$290.58	
Spread & compact				87	cy. @	$0.50	per c.y.=	$43.50	
							TOTAL ENDHAUL		**$334.08**

CULVERTS - MATERIALS & INSTALLATION

Culvert Stakes & Markers			
2 markers	$16.00		
		TOTAL CULVERTS	**$16.00**

ROCK

0+00 to	18+40	420	cy. of	Crushed	@	$24.93	per c.y.=	$10,470.60	
Spot Rock	18+40 - Point D	100	cy. of	Crushed	@	$25.34	per c.y.=	$2,534.00	
Junction Rock	0+00	20	cy. of	Crushed	@	$24.76	per c.y.=	$495.20	
							TOTAL ROCK		**$13,499.80**

SPECIAL PROJECTS

Grade and shape road -	42.90	stations @	$22.00	per station	$943.80	
Roll subgrade w/ vibratory roller prior to rocking -	42.90	stations @	$17.50	per station	$750.75	
Grass seed and fertilize -	0.08	acres @	$280.00	per acre	$22.40	
				TOTAL SPECIAL PROJECTS		**$1,716.95**

GRAND TOTAL **$15,764.91**

SUMMARY OF CONSTRUCTION COST

Sale: **Enright Station** Road: **E to F**

Construction -	12+20	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.23	miles		0.00	miles		0.00	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		0+70	20%		Outslope	$174	=	$121.80	
0+70		2+80	30%		Outslope	$239	=	$501.90	
2+80		3+60	60%	0.3	Outslope	$1,020	=	$816.00	
3+60		5+40	45%		Outslope	$336	=	$604.80	
5+40		7+20	60%	0.4	Outslope	$1,051	=	$1,891.80	
7+20		8+10	45%		Outslope	$336	=	$302.40	
8+10		9+20	60%	0.4	Outslope	$1,051	=	$1,156.10	
9+20		10+20	40%		Outslope	$303	=	$303.00	
10+20		10+80	30%		Outslope	$239	=	$143.40	
10+80		12+20	20%		Outslope	$174	=	$243.60	
								TOTAL	**$6,084.80**

CULVERTS - MATERIALS & INSTALLATION

Culverts				
40	LF of 30"	$1,640.00		
Culvert Stakes & Markers				
1	markers	$8.00		
			TOTAL CULVERTS	**$1,648.00**

ROCK

0+00 to	12+20	940	cy. of	Pit-Run	@	$11.30	per c.y.=	$10,622.00	
Landing Rock	Point F	70	cy. of	Pit-Run	@	$11.41	per c.y.=	$798.70	
Junction Rock	0+00	20	cy. of	Pit-Run	@	$11.18	per c.y.=	$223.60	
Energy Dissipator	3+00	5	cy. of	Riprap	@	$11.54	per c.y.=	$57.70	
								TOTAL ROCK	**$11,702.00**

SPECIAL PROJECTS

Construct waste areas -	1.00	hour @	$180.00		$180.00	
Construct landing at Point F -	1.00	@	$370.00		$370.00	
Construct turnaround before landing -	1.00	@	$100.00		$100.00	
Construct ditch for 20 feet before and after culvert -	0.40	stations @	$210.00	per station	$84.00	
Grade and shape road -	12.20	stations @	$20.00	per station	$244.00	
Roll subgrade w/ vibratory roller prior to rocking -	12.20	stations @	$17.50	per station	$213.50	
Remove large stumps -	1.00	lump sum @	$225.00		$225.00	
Grass seed and fertilize -	1.25	acres @	$280.00	per acre	$350.00	
Mulching -	0.070	acres @	$780.00	per acre	$54.60	
					TOTAL SPECIAL PROJECTS	**$1,821.10**

GRAND TOTAL **$21,255.90**

SUMMARY OF CONSTRUCTION COST

Sale: **Enright Station** Road: **G to H**

Construction -	0+00	stations	Improvement -	11+40	stations	Reconstruction -	0+00	stations
	0.00	miles		0.22	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Scattering	0.420	acres @	$1,275.00	per acre =	$535.50	
				TOTAL CLEARING AND GRUBBING		**$535.50**

ROCK

Spot Rock	TBD	50	cy. of	Crushed	@	$25.05	per c.y.=	$1,252.50	
								TOTAL ROCK	**$1,252.50**

SPECIAL PROJECTS

Grade and shape road -	11.40	stations @	$20.00	per station	$228.00	
Roll subgrade w/ vibratory roller prior to rocking -	11.40	stations @	$17.50	per station	$199.50	
Grass seed and fertilize -	0.26	acres @	$280.00	per acre	$72.80	
				TOTAL SPECIAL PROJECTS		**$500.30**
				GRAND TOTAL		**$2,288.30**

SUMMARY OF CONSTRUCTION COST

Sale: **Enright Station** Road: **I to J**

Construction -	0+00	stations	Improvement -	21+30	stations	Reconstruction -	5+20	stations
	0.00	miles		0.40	miles		0.10	miles

RECONSTRUCTION: CLEARING AND GRUBBING -

Scattering	0.330	acres	@	$1,275.00	per acre =	$420.75	
					TOTAL CLEARING AND GRUBBING		$420.75

CULVERTS - MATERIALS & INSTALLATION

Culvert Stakes & Markers			
2 markers	$16.00		
		TOTAL CULVERTS	$16.00

ROCK

21+30 to	26+50	430	cy. of	Pit-Run	@	$11.24	per c.y.=	$4,833.20	
Spot Rock	0+00 - 21+30	60	cy. of	Crushed	@	$24.91	per c.y.=	$1,494.60	
Landing Rock	Point J	70	cy. of	Pit-Run	@	$11.29	per c.y.=	$790.30	
Junction Rock	21+30	20	cy. of	Pit-Run	@	$11.19	per c.y.=	$223.80	
							TOTAL ROCK		$7,341.90

SPECIAL PROJECTS

Construct landing at Point J -	1.00	@	$370.00		$370.00	
Construct turnaround before landing -	1.00	@	$100.00		$100.00	
Pull ditch and endhaul -	8.00	stations @	$130.00	per station	$1,040.00	
Grade and shape road (Incl. extra 5.5 stations) -	32.00	stations @	$22.00	per station	$704.00	
Roll subgrade w/ vibratory roller prior to rocking -	26.50	stations @	$17.50	per station	$463.75	
				TOTAL SPECIAL PROJECTS		$2,677.75

GRAND TOTAL **$10,456.40**

SUMMARY OF CONSTRUCTION COST

Sale: **Enright Station** Road: **K to L**

Construction -	9+30	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.18	miles		0.00	miles		0.00	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		0+60	20%		Outslope	$174	=	$104.40	
0+60		1+00	30%		Outslope	$239	=	$95.60	
1+00		1+50	40%		Outslope	$303	=	$151.50	
1+50		2+20	50%		Outslope	$573	=	$401.10	
2+20		3+40	60%	0.1	Outslope	$1,901	=	$2,281.20	
3+40		4+20	40%		Outslope	$303	=	$242.40	
4+20		5+80	20%		Outslope	$174	=	$278.40	
5+80		7+60	30%		Outslope	$239	=	$430.20	
7+60		9+30	20%		Outslope	$174	=	$295.80	
								TOTAL	**$4,280.60**

ROCK

0+00	to	9+30	780	cy. of	Pit-Run	@	$11.21	per c.y.=	$8,743.80	
Landing Rock		6+20, Point L	140	cy. of	Pit-Run	@	$11.30	per c.y.=	$1,582.00	
Junction Rock		0+00	20	cy. of	Pit-Run	@	$11.12	per c.y.=	$222.40	
									TOTAL ROCK	**$10,548.20**

SPECIAL PROJECTS

Construct waste areas -	1.00	hour @	$180.00		$180.00	
Construct landing at 6+20 & Point L -	2.00	@	$370.00	each	$740.00	
Construct turnarounds before landings -	2.00	@	$100.00	each	$200.00	
Grade and shape road -	9.30	stations @	$20.00	per station	$186.00	
Roll subgrade w/ vibratory roller prior to rocking -	9.30	stations @	$17.50	per station	$162.75	
Grass seed and fertilize -	0.91	acres @	$280.00	per acre	$254.80	
					TOTAL SPECIAL PROJECTS	**$1,723.55**

GRAND TOTAL **$16,552.35**

SUMMARY OF CONSTRUCTION COST

Sale: **Enright Station** Road: **M to N**

Construction -	0+00	stations	Improvement -	11+50	stations	Reconstruction -	0+00	stations
	0.00	miles		0.22	miles		0.00	miles

ROCK

0+00	to	1+00	30	cy. of	Crushed	@	$24.93	per c.y.=	$747.90	
									TOTAL ROCK	**$747.90**

SPECIAL PROJECTS

Construct landing at 4+00 -	1.00	@	$370.00		$370.00	
Construct turnaround before landing -	1.00	@	$100.00		$100.00	
Grade and shape road -	11.50	stations @	$20.00	per station	$230.00	
Roll subgrade w/ vibratory roller prior to rocking -	11.50	stations @	$17.50	per station	$201.25	
Grass seed and fertilize -	0.53	acres @	$280.00	per acre	$148.40	
				TOTAL SPECIAL PROJECTS		**$1,049.65**
				GRAND TOTAL		**$1,797.55**

SUMMARY OF CONSTRUCTION COST

Sale: **Enright Station** Road: **O to P**

Construction -	2+80	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.05	miles		0.00	miles		0.00	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		2+80	20%		Outslope	$174	=	$487.20	
								TOTAL	**$487.20**

ROCK

0+00	to	2+80	270	cy. of	Pit-Run	@	$10.89	per c.y.=	$2,940.30	
Landing Rock		Point P	70	cy. of	Pit-Run	@	$10.92	per c.y.=	$764.40	
Junction Rock		0+00	20	cy. of	Pit-Run	@	$10.86	per c.y.=	$217.20	
									TOTAL ROCK	**$3,921.90**

SPECIAL PROJECTS

Construct landing at Point P -	1.00	@	$370.00		$370.00	
Grade and shape road -	2.80	stations @	$20.00	per station	$56.00	
Roll subgrade w/ vibratory roller prior to rocking -	2.80	stations @	$17.50	per station	$49.00	
Grass seed and fertilize -	0.26	acres @	$280.00	per acre	$72.80	
					TOTAL SPECIAL PROJECTS	**$547.80**

GRAND TOTAL **$4,956.90**

SUMMARY OF CONSTRUCTION COST

Sale: **Enright Station** Road: **Q to R**

Construction -	0+00	stations	Improvement -	75+00	stations	Reconstruction -	0+00	stations
	0.00	miles		1.42	miles		0.00	miles

CULVERTS - MATERIALS & INSTALLATION

Culverts			
30	LF of 18"	$600.00	
Culvert Stakes & Markers			
4	markers	$32.00	
		TOTAL CULVERTS	**$632.00**

ROCK

Culvert Bedding	15+70	10	cy. of	Crushed	@	$23.13	per c.y.=	$231.30	
Spot Rock	0+00 - 27+60	60	cy. of	Crushed	@	$24.41	per c.y.=	$1,464.60	
Energy Dissipator	15+70	5	cy. of	Riprap	@	$11.02	per c.y.=	$55.10	
								TOTAL ROCK	**$1,751.00**

SPECIAL PROJECTS

Pull ditch and endhaul -	12.00	stations @	$130.00	per station	$1,560.00	
Grade and shape road -	75.00	stations @	$22.00	per station	$1,650.00	
Roll subgrade w/ vibratory roller prior to rocking -	75.00	stations @	$17.50	per station	$1,312.50	
Remove culverts from state lands	1.00	@	$735.90		$735.90	
					TOTAL SPECIAL PROJECTS	**$5,258.40**

GRAND TOTAL **$7,641.40**

SUMMARY OF CONSTRUCTION COST

Sale: **Enright Station** Road: **S to T**

Construction -	0+00	stations	Improvement -	23+30	stations	Reconstruction -	0+00	stations
	0.00	miles		0.44	miles		0.00	miles

IMPROVEMENT: CLEARING AND GRUBBING -

Widening	0.064	acres @	$860.00	per acre =	$55.04	
Scattering	0.080	acres @	$1,275.00	per acre =	$102.00	
				TOTAL CLEARING AND GRUBBING		**$157.04**

IMPROVEMENT: EXCAVATION -

Widening	255	cy. @	$2.00	per c.y.=	$510.00	
				TOTAL EXCAVATION		**$510.00**

IMPROVEMENT: ENDHAUL -

Widening	2+00	to	3+00	59	cy. @	$3.07	per c.y.=	$181.13	
Widening	4+30	to	5+30	98	cy. @	$3.71	per c.y.=	$363.58	
Widening	9+50	to	10+50	98	cy. @	$4.35	per c.y.=	$426.30	
Spread & compact				255	cy. @	$0.50	per c.y.=	$127.50	
							TOTAL ENDHAUL		**$1,098.51**

ROCK

Spot Rock	TBD	120	cy. of	Crushed	@	$23.96	per c.y.=	$2,875.20	
Turn Around	20+70	20	cy. of	Crushed	@	$24.13	per c.y.=	$482.60	
							TOTAL ROCK		**$3,357.80**

SPECIAL PROJECTS

Construct waste areas -	0.50	hours @	$180.00	per hour	$90.00	
Construct turnaround at 20+70 -	1.00	@	$100.00		$100.00	
Pull ditch and endhaul -	4.00	stations @	$130.00	per station	$520.00	
Grade and shape road -	23.30	stations @	$22.00	per station	$512.60	
Roll subgrade w/ vibratory roller prior to rocking -	23.30	stations @	$17.50	per station	$407.75	
Grass seed and fertilize -	0.12	acres @	$280.00	per acre	$33.60	
				TOTAL SPECIAL PROJECTS		**$1,663.95**

GRAND TOTAL **$6,787.30**

SUMMARY OF CONSTRUCTION COST

Sale: **Enright Station** Road: **U to V**

Construction -	0+00	stations	Improvement -	11+70	stations	Reconstruction -	0+00	stations
	0.00	miles		0.22	miles		0.00	miles

ROCK

Spot Rock	TBD	40	cy. of	Crushed	@	$23.44	per c.y.=	$937.60	
								TOTAL ROCK	**$937.60**

SPECIAL PROJECTS

Grade and shape road -	11.70	stations @	$22.00	per station	$257.40	
Roll subgrade w/ vibratory roller prior to rocking -	11.70	stations @	$17.50	per station	$204.75	
				TOTAL SPECIAL PROJECTS		**$462.15**
				GRAND TOTAL		**$1,399.75**

SUMMARY OF CONSTRUCTION COST

Sale: **Enright Station** Road: **W to X**

Construction -	8+00	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.15	miles		0.00	miles		0.00	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		2+50	60%	1.8	Outslope	$712	=	$1,780.00	
2+50		3+00	40%		Outslope	$303	=	$151.50	
3+00		3+50	60%	1.9	Outslope	$712	=	$356.00	
3+50		4+00	40%		Outslope	$303	=	$151.50	
4+00		6+20	30%		Outslope	$239	=	$525.80	
6+20		8+00	40%		Outslope	$303	=	$545.40	
								TOTAL	**$3,510.20**

ADDITIONAL EXCAVATION -

Pullback	220	cy. @	$2.00	per c.y.=	$440.00	
					TOTAL EXCAVATION	**$440.00**

ADDITIONAL ENDHAUL -

Pullback	1+00	to	2+50	220	cy. @	$4.42	per c.y.=	$972.40	
Spread & compact				220	cy. @	$0.50	per c.y.=	$110.00	
								TOTAL ENDHAUL	**$1,082.40**

ROCK

0+00 to	8+00	650	cy. of	Pit-Run	@	$10.83 per c.y.=	$7,039.50	
Landing Rock	5+20, Point X	140	cy. of	Pit-Run	@	$11.04 per c.y.=	$1,545.60	
Junction Rock	0+00	20	cy. of	Pit-Run	@	$10.73 per c.y.=	$214.60	
							TOTAL ROCK	**$8,799.70**

SPECIAL PROJECTS

Construct waste areas -	0.50	hours @	$180.00	per hour	$90.00	
Construct landings at 5+20 and Point X -	2.00	@	$370.00	each	$740.00	
Construct turnarounds before landings -	2.00	@	$100.00	each	$200.00	
Grade and shape road -	8.00	stations @	$20.00	per station	$160.00	
Roll subgrade w/ vibratory roller prior to rocking -	8.00	stations @	$17.50	per station	$140.00	
Remove large stumps -	1.00	lump sum @	$720.00		$720.00	
Grass seed and fertilize -	0.61	acres @	$280.00	per acre	$170.80	
					TOTAL SPECIAL PROJECTS	**$2,220.80**

GRAND TOTAL **$16,053.10**

SUMMARY OF CONSTRUCTION COST

Sale: **Enright Station** Road: **Y to Z**

Construction -	0+00	stations	Improvement -	142+50	stations	Reconstruction -	0+00	stations
	0.00	miles		2.70	miles		0.00	miles

ROCK

0+00	to	106+70	3,730	cy. of	Jaw-Run	@	$17.01	per c.y.=	$63,447.30	
Junction Rock		0+00	20	cy. of	Jaw-Run	@	$17.17	per c.y.=	$343.40	
Spot Rock		106+70 - Point Z	100	cy. of	Jaw-Run	@	$17.45	per c.y.=	$1,745.00	
Leveling		TBD	50	cy. of	Leveling SP	@	$8.63	per c.y.=	$431.50	
									TOTAL ROCK	**$65,967.20**

SPECIAL PROJECTS

Construct ditchout at 63+30 -	1.00	@	$60.00		$60.00	
Grade and shape road -	142.50	stations @	$22.00	per station	$3,135.00	
Drill & Shoot/Construct ditch from 50+30 to 63+30 -	13.00	stations @	$200.00	per station	$2,600.00	
Roll subgrade w/ vibratory roller prior to rocking -	142.50	stations @	$17.50	per station	$2,493.75	
					TOTAL SPECIAL PROJECTS	**$8,288.75**

GRAND TOTAL **$74,255.95**

SUMMARY OF CONSTRUCTION COST

Sale: **Enright Station** Road: **AA to BB**

Construction -	0+00	stations	Improvement -	24+40	stations	Reconstruction -	0+00	stations
	0.00	miles		0.46	miles		0.00	miles

ROCK

0+00	to	24+40	300	cy. of	Crushed	@	$29.08	per c.y.=	$8,724.00	
Junction Rock		0+00	20	cy. of	Crushed	@	$29.00	per c.y.=	$580.00	
									TOTAL ROCK	**$9,304.00**

SPECIAL PROJECTS

Grade and shape road -	24.40	stations @	$22.00	per station	$536.80	
Roll subgrade w/ vibratory roller prior to rocking -	24.40	stations @	$17.50	per station	$427.00	
					TOTAL SPECIAL PROJECTS	**$963.80**

GRAND TOTAL **$10,267.80**

SUMMARY OF CONSTRUCTION COST

Sale: **Enright Station** Road: **CC to DD**

Construction -	2+70	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.05	miles		0.00	miles		0.00	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		1+50	25%		Outslope	$206	=	$309.00	
1+50		2+70	35%		Outslope	$239	=	$286.80	
								TOTAL	**$595.80**

ROCK

0+00	to	1+00	70	cy. of	Pit-Run	@	$10.72	per c.y.=	$750.40	
									TOTAL ROCK	**$750.40**

SPECIAL PROJECTS

Construct landing at Point DD -	1.00	@	$370.00		$370.00	
Construct turnaround before landing -	1.00	@	$100.00		$100.00	
Grade and shape road -	2.70	stations @	$20.00	per station	$54.00	
Roll subgrade w/ vibratory roller prior to rocking -	2.70	stations @	$17.50	per station	$47.25	
Grass seed and fertilize -	0.12	acres @	$280.00	per acre	$33.60	
					TOTAL SPECIAL PROJECTS	**$604.85**

GRAND TOTAL **$1,951.05**

SUMMARY OF CONSTRUCTION COST

Sale: **Enright Station** Road: **EE to FF** **OPTIONAL**

Construction -	7+20	stations	Improvement -	0+00	stations	Reconstruction -	0+00	stations
	0.14	miles		0.00	miles		0.00	miles

CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -

Station	to	Station	Avg. Sideslope	Avg. Dist. To W.A. (mi.)	Outslope/Ditch	Cost per Station			
0+00		1+00	30%		Outslope	$239	=	$239.00	
1+00		1+70	20%		Outslope	$174	=	$121.80	
1+70		2+60	40%		Outslope	$303	=	$272.70	
2+60		3+50	60%	0.8	Outslope	$1,583	=	$1,424.70	
3+50		5+00	50%		Outslope	$573	=	$859.50	
5+00		5+80	60%	0.9	Outslope	$1,629	=	$1,303.20	
5+80		7+20	30%		Outslope	$239	=	$334.60	
								TOTAL	**$4,555.50**

ROCK

0+00	to	1+00	70	cy. of	Pit-Run	@	$10.88	per c.y.=	$761.60	
									TOTAL ROCK	**$761.60**

SPECIAL PROJECTS

Construct waste areas -	1.00	hour @	$180.00		$180.00	
Construct landing at Point FF -	1.00	@	$370.00		$370.00	
Construct turnaround before landing -	1.00	@	$100.00		$100.00	
Grade and shape road -	7.20	stations @	$20.00	per station	$144.00	
Roll subgrade w/ vibratory roller prior to rocking -	7.20	stations @	$17.50	per station	$126.00	
Grass seed and fertilize -	0.33	acres @	$280.00	per acre	$92.90	
					TOTAL SPECIAL PROJECTS	**$1,012.90**

GRAND TOTAL **$6,330.00**

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Crushed	Location:	North Side NW 1/4, SE 1/4, Sec. 25, T3N, R8W, WM
Sale:	**Enright Station**	Road:	9140 c.y.
Swell:	1.40	Stockpile:	c.y.
Shirinkage	1.16	Total Truck Loads:	9140 c.y.
Drill Pct.:	100%	In Place Total:	6529 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area adjacent to pit, place overburden in Waste Area, spread and compact.							$8,400.00
Drill & Shoot:	$3.25	/cu.yd.	x	6529	cu.yds.	=	$21,219.25
Push Rock:	$1.00	/cu.yd.	x	9140	cu.yds.	=	$9,140.00
Load Crusher:	$1.00	/cu.yd.	x	9140	cu.yds.	=	$9,140.00
Crush Rock:	$4.25	/cu.yd.	x	9140	cu.yds.	=	$38,845.00
Load Dump Truck:	$1.00	/cu.yd.	x	9140	cu.yds.	=	$9,140.00
Screening:	$3.40	/cu.yd.	x	9140	cu.yds.	=	$31,076.00
						Subtotal	$126,960.25

Move In/Set-up Crusher	1	@	$9,090.00	=	$9,090.00
Move In and set up Drill and Compressor	1	@	$1,885.57	=	$1,885.57
Move in Roller and Compactor	1	@	$1,300.50	=	$1,300.50
Move in Grader	1	@	$1,887.50	=	$1,887.50
Move in D-8	1	@	$2,159.07	=	$2,159.07
Move in Loader	1	@	$1,936.07	=	$1,936.07
Move in Excavator	1	@	$2,051.07	=	$2,051.07
Move in Trucks	4	@	$505.14	=	$2,020.56
				Subtotal	$22,330.34

TOTAL PRODUCTION COSTS $149,290.59

Base Cost= $16.33 Per Cu.Yd.

Road Segment	Haul Cost $/cu.yd.	Proc Cost $/cu.yd.	Base Cost. $/cu.yd.	Cost $/cu.yd.	Number Cu. Yds		ROCK COST
A to B 0 7740 (Crushed)	3.01	3.20	16.33	22.54	920		$20,736.80
A to B 7740 31680 (Crushed)	3.95	3.20	16.33	23.48	5350		$125,618.00
A to B Culvert Bedding (Crushed)	3.07	2.00	16.33	21.40	40		$856.00
A to B Spot Rock (Crushed)	5.32	3.20	16.33	24.85	40		$994.00
A to B Bedding/Backfill (Crushed)	4.73	2.00	16.33	23.06	40		$922.40
C to D 0 1840 (Crushed)	5.40	3.20	16.33	24.93	420		$10,470.60
C to D Spot Rock (Crushed)	5.81	3.20	16.33	25.34	100		$2,534.00
C to D Junction Rock (Crushed)	5.23	3.20	16.33	24.76	20		$495.20
G to H Spot Rock (Crushed)	5.52	3.20	16.33	25.05	50		$1,252.50
I to J Spot Rock (Crushed)	5.38	3.20	16.33	24.91	60		$1,494.60
M to N 0 100 (Crushed)	5.40	3.20	16.33	24.93	30		$747.90
Q to R Culvert Bedding (Crushed)	4.80	2.00	16.33	23.13	10		$231.30
Q to R Spot Rock (Crushed)	4.88	3.20	16.33	24.41	60		$1,464.60
S to T Spot Rock (Crushed)	4.43	3.20	16.33	23.96	120		$2,875.20
S to T Turn Around (Crushed)	4.60	3.20	16.33	24.13	20		$482.60
U to V Spot Rock (Crushed)	3.91	3.20	16.33	23.44	40		$937.60
AA to BB 0 2440 (Crushed)	9.55	3.20	16.33	29.08	300		$8,724.00
AA to BB Junction Rock (Crushed)	9.47	3.20	16.33	29.00	20		$580.00
Point HH Stockpile (Crushed)	3.02	1.70	16.33	21.05	1500		$31,575.00
				Total C.Y.	9140	Sub Total	$212,992.30

TOTAL ROCKING COSTS $212,992.30

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Jaw_run	Location:	South Side SW 1/4, SE 1/4, Sec. 31, T3N, R7W, WM	
Sale:	**Enright Station**		Road:	3850 c.y.
Swell:	1.40		Stockpile:	c.y.
Shirinkage	1.16		Total Truck Loads:	3850 c.y.
Drill Pct.:	0%		In Place Total:	2750 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area, place overburden in Waste Area, spread and compact.							$2,126.60
Rip Rock:	$3.00	/cu.yd.	x	2750	cu.yds.	=	$8,250.00
Load Crusher:	$1.00	/cu.yd.	x	3850	cu.yds.	=	$3,850.00
Crush Rock:	$3.50	/cu.yd.	x	3850	cu.yds.	=	$13,475.00
Load Dump Truck:	$1.00	/cu.yd.	x	3850	cu.yds.	=	$3,850.00
						Subtotal	$31,551.60

	Move In/Set-up Crusher	1	@	$3,120.00	=	$3,120.00
Within Area	Move in Roller and Compactor	1	@	$650.25	=	$650.25
Within Area	Move in Grader	1	@	$943.75	=	$943.75
Within Area	Move in D-8	1	@	$1,079.54	=	$1,079.54
Within Area	Move in Loader	1	@	$968.04	=	$968.04
Within Area	Move in Excavator	1	@	$1,025.54	=	$1,025.54
	Move in Trucks	4	@	$505.14	=	$2,020.56
					Subtotal	$9,807.68

TOTAL PRODUCTION COSTS $41,359.28

Base Cost= $10.74 Per Cu.Yd.

Road Segment	Haul Cost $/cu.yd.	Proc Cost $/cu.yd.	Base Cost. $/cu.yd.	Cost $/cu.yd.	Number Cu. Yds		ROCK COST
Y to Z 0 10670 (Jaw-Run)	3.07	3.20	10.74	17.01	3730		$63,447.30
Y to Z Junction Rock (Jaw-Run)	3.23	3.20	10.74	17.17	20		$343.40
Y to Z Spot Rock (Jaw-Run)	3.51	3.20	10.74	17.45	100		$1,745.00
				Total C.Y.	3850	Sub Total	$65,535.70

TOTAL ROCKING COSTS $65,535.70

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

			Clay Havre	
Pit:	Pit_run	Location:	NW 1/4, NE 1/4, Sec. 32, T3N, R7W, WM	
Sale:	**Enright Station**		Road:	4370 c.y.
Swell:	1.40		Stockpile:	c.y.
Shirinkage	1.16		Total Truck Loads:	4370 c.y.
Drill Pct.:	0%		In Place Total:	3121 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area adjacent to pit, place overburden in Waste Area, spread and compact.							$3,150.00
Rip Rock:	$3.00	/cu.yd.	x	3121	cu.yds.	=	$9,363.00
Load Dump Truck:	$1.00	/cu.yd.	x	4370	cu.yds.	=	$4,370.00
						Subtotal	$16,883.00

Move in Roller and Compactor	1	@	$1,300.50	=	$1,300.50
Move in Grader	1	@	$1,887.50	=	$1,887.50
Move in D-8	1	@	$2,159.07	=	$2,159.07
Move in Excavator	1	@	$2,051.07	=	$2,051.07
Move in Trucks	4	@	$505.14	=	$2,020.56
				Subtotal	$9,418.70

TOTAL PRODUCTION COSTS $26,301.70

Base Cost= $6.02 Per Cu.Yd.

Road Segment	Haul Cost $/cu.yd.	Proc Cost $/cu.yd.	Base Cost. $/cu.yd.	Cost $/cu.yd.	Number Cu. Yds		ROCK COST
A to B 32670 32820 (Pit-Run)	3.32	1.70	6.02	11.04	100		$1,104.00
A to B Landing Rock (Pit-Run)	3.33	1.70	6.02	11.05	70		$773.50
A to B Fill Armor (Pit-Run)	3.08	2.00	6.02	11.10	50		$555.00
A to B Subgrade Reconstruction (Riprap)	3.01	2.00	6.02	11.03	10		$110.30
A to B Energy Dissipator (Riprap)	3.25	2.00	6.02	11.27	20		$225.40
A to B Replacement Fill (Pit-Run)	3.08	2.00	6.02	11.10	300		$3,330.00
A to B Energy Dissipator (Riprap)	3.08	2.00	6.02	11.10	10		$111.00
E to F 0 1220 (Pit-Run)	3.58	1.70	6.02	11.30	940		$10,622.00
E to F Landing Rock (Pit-Run)	3.69	1.70	6.02	11.41	70		$798.70
E to F Junction Rock (Pit-Run)	3.46	1.70	6.02	11.18	20		$223.60
E to F Energy Dissipator (Riprap)	3.52	2.00	6.02	11.54	5		$57.70
I to J 2130 2650 (Pit-Run)	3.52	1.70	6.02	11.24	430		$4,833.20
I to J Landing Rock (Pit-Run)	3.57	1.70	6.02	11.29	70		$790.30
I to J Junction Rock (Pit-Run)	3.47	1.70	6.02	11.19	20		$223.80
K to L 0 930 (Pit-Run)	3.49	1.70	6.02	11.21	780		$8,743.80
K to L Landing Rock (Pit-Run)	3.58	1.70	6.02	11.30	140		$1,582.00
K to L Junction Rock (Pit-Run)	3.40	1.70	6.02	11.12	20		$222.40
O to P 0 280 (Pit-Run)	3.17	1.70	6.02	10.89	270		$2,940.30
O to P Landing Rock (Pit-Run)	3.20	1.70	6.02	10.92	70		$764.40
O to P Junction Rock (Pit-Run)	3.14	1.70	6.02	10.86	20		$217.20
Q to R Energy Dissipator (Riprap)	3.00	2.00	6.02	11.02	5		$55.10
W to X 0 800 (Pit-Run)	3.11	1.70	6.02	10.83	650		$7,039.50
W to X Landing Rock (Pit-Run)	3.32	1.70	6.02	11.04	140		$1,545.60
W to X Junction Rock (Pit-Run)	3.01	1.70	6.02	10.73	20		$214.60
CC to DD 0 100 (Pit-Run)	3.00	1.70	6.02	10.72	70		$750.40
EE to FF 0 100 (Pit-Run)	3.16	1.70	6.02	10.88	70		$761.60
				Total C.Y.	4370	Sub Total	$48,595.40

TOTAL ROCKING COSTS $48,595.40

Move-In Calculations for Project Work not Involving Rocking/Pit Work

Sale: **Enright Station**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
54.0	Pavement	30
20.0	Main Lines	7
9.0	Steep Grades	2

No.	EQUIPMENT DESCRIPTION	Move in Cost	Pilot Cars	Within Area Move ($/mile)	Begin Mileage	End Mileage	Total Miles	Within Area Cost	Total Cost
1	Brush Cutter	$1,585.50		$4.00	0.00	0.00	0	$0.00	$1,585.50
1	Excavators (Med.)	$1,914.32		$35.50	0.00	0.00	0	$0.00	$1,914.32
1	Tractors (D7)	$2,159.07	2	$11.30	0.00	0.00	0	$0.00	$2,159.07
1	Tractor (D8)	$2,159.07	2	$15.10	0.00	0.00	0	$0.00	$2,159.07
2	Dump Truck (10 cy +)	$1,010.29		$2.85	0.00	0.00	0	$0.00	$1,010.29
1	Dump Truck (Off Hiway)	$2,025.08	1	$4.75	0.00	0.00	0	$0.00	$2,025.08

TOTAL MOVE-IN COSTS:	$10,853.33

OREGON DEPARTMENT OF FORESTRY
CRUISE REPORT
Enright Station

1. Type of Sale

Regeneration harvest, Recovery

2. Legal Description

Section(s) 20, 28, 29 of T3N R7W W.M.

3. Sale Acreage

Sale acreage was determined by GPS and orthophotographs along with GIS.

	ACRES	
	Gross	Net
Unit 1 (Modified Clearcut)	127	112
Unit 2 (Modified Clearcut)	134	110
Total Acres	261	222

Gross Acres

Area within the Timber Sale Boundary signs

Net acres

Used for calculating the advertised volume.

Gross acres, less green tree retention, roads, Non-required thinning areas, and riparian areas classified as Special Stewardship in LMCS inside the sale boundary.

4. Cruising Procedures

A. Cruise Method

Units 1 & 2 were cruised using a 175’ x 700’ grid. All timber sale units were cruised with a variable plot sampling method. All conifers 8” DBH and greater and all hardwoods 10” DBH and greater were recorded on all plots. A 1:1 volume plot to basal area plot ratio was used, with each volume plot recording species, diameter, height, form factor and grade and each basal area plot recording species and diameter. Merchantable heights were recorded to 6” and 7” outside bark for conifers and hardwoods, respectively.

B. Plot size

Point of observation was 4.0’. Form factor was measured at 16.0’.

Unit	BAF
1	40.00
2	33.61

C. Grading System

All trees were graded according to Columbia River Log Scaling and Grading Rules. Log lengths favored 40’ lengths.

5. Computation Procedure

Cruise data was entered into SuperAce for computation of basal area, advertised volume, volume summary, log stock table, and stand table for each species and type. Cruise volumes were cruised by the marketing unit in 2021. Plots landing in riparian management areas or areas excluded from the timber sale harvest areas were removed from computation procedures.

Net sale acreage was used for volume calculation.

Cruise Statistics (Board Foot Volumes)			
Unit	Number of Plots	SE (%)	CV (%)
1	37	6.7	40.9
2	31	9.0	50.3
Total	113	5.5 (comb.)	45.2 (comb.)

6. Hidden Defect and Breakage

A 1% reduction was applied to conifers and a 2% reduction to hardwood volumes for hidden defect and breakage.

7. Timber Description

Unit 1 consists of primarily 60 years old Douglas-fir with pockets of red alder and western hemlock. There is a small cohort of 94 year old Douglas-fir, some will be harvested with this sale. These older trees are scattered through the Unit and are a legacy of the railroad logging. Most of the unit was burned in the Wilson River/Salmonberry Fire of 1945. Portions were seeded in 1963 and portions were thinned with the Claymore timber sale in 2003.

Unit 2 is approximately a 56 year stand of primarily Douglas-fir with some western hemlock and minor amounts of red alder, bigleaf maple (reserve) and Sitka spruce (reserve). Most of the unit was burned in the Wilson River/Salmonberry Fire of 1945. Portions of the unit were thinned with the Claymore timber sale (2003) and the Clay Tunnel timber sale (2012).

The stand is comprised of multiple merchantable species, please see the table below:

Unit #	Species	DBH	Merchantable Bole Height (feet)	Merchantable top (inches inside bark)
1	Douglas-fir	19.3	88	5
1	Western hemlock	17.0	63	5
1	Red alder	14.2	48	6
2	Douglas-fir	28.1	106	5
2	Western hemlock	14.4	32	5
2	Red alder	13.9	31	6

Above data derived from Statistics (type) report using SuperAce 2008, developed by Atterbury consultants, Inc.

8. Cruiser /Dates

The timber sale was cruised by the Tillamook District Marketing unit in April & September of 2021.

9. Revenue Distribution

FDF 100%

Tax Code: 5601 – 100%

Deed Numbers: 35, 70, 96, 391

10. Attachments

Volume Summary

Stand Tables (2)

Log Stock Tables (2)

Species, Sort, Grade Tables (2)

Logging Plan (2)

11. Stand and Log Stock Tables Species Key

DF – Douglas-fir (take)
DL – Douglas-fir (Leave)
WH – western hemlock (take)
RA – red alder (take)
BM – bigleaf maple (leave)
SS – Sitka spruce (leave)
OC – other conifer-snag (leave)

Prepared by Cole: Lindsay Date 9/16/2021

T **TSPCSTGR**

Species, Sort Grade - Board Foot Volumes (Type)

Project: **ENRS**

Page **1**
Date **9/23/2021**
Time **3:47:07PM**

T03N R07W S29 T0100 **T03N R07W S29 T0100**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
03N	07W	29	503	0100	112.00	37	106	S	W

				%	Bd. Ft. per Acre			Total	Percent Net Board Foot Volume								Average Log				Logs
									Log Scale Dia.				Log Length								
Spp	ST	Sort	Grad	Net BdFt	Def%	Gross	Net	Net MBF	4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ln Ft	Dia In	Bd Ft	CF/ Lf	Per /Acre
DF		CO	2	66	.9	21,078	20,893	2,340			46	54	1		2	98	40	16	420	2.05	49.8
DF		CO	3	29	1.3	9,289	9,167	1,027		82	18		1	2	5	92	39	9	116	0.73	79.3
DF		CO	4	5	1.0	1,553	1,536	172	73	27			23	43	16	18	27	6	33	0.37	46.9
DF	**Totals**			76	1.0	31,920	31,597	3,539	4	25	36	35	2	3	3	92	36	10	179	1.07	176.0
WH		CO	2	74	2.1	5,698	5,580	625			39	61		6		94	39	16	417	2.19	13.4
WH		CO	3	14		1,048	1,048	117		87	13			13	4	83	38	9	119	0.76	8.8
WH		CO	4	12		824	824	92	100				4	26		71	32	5	33	0.37	25.3
WH	**Totals**			18	1.6	7,570	7,452	835	11	12	31	46	0	9	1	90	35	9	157	1.02	47.5
RA		H	3	30		737	737	83		100						100	40	10	150	0.90	4.9
RA		H	4	70		1,698	1,698	190		100			5	10	6	79	33	7	63	0.57	26.8
RA	**Totals**			6		2,435	2,435	273		100			4	7	4	86	34	7	77	0.63	31.7
Type Totals					1.1	41,925	41,484	4,646	5	27	33	35	2	4	3	91	36	9	163	1.01	255.2

TC TSTNDSUM

Stand Table Summary

Project **ENRS**

T03N R07W S29 T0100 **T03N R07W S29 T0100**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03N	**07W**	**29**	**503**	**0100**	112.00	37	106

Page: 1
Date: 09/23/2021
Time: 3:47:07PM

					Av				Average Log			Net	Net	Totals		
	S		Sample	FF	Ht	Trees/	BA/	Logs	Net	Net	Tons/	Cu.Ft.	Bd.Ft.			
Spc	T	DBH	Trees	16'	Tot	Acre	Acre	Acre	Cu.Ft.	Bd.Ft.	Acre	Acre	Acre	Tons	Cunits	MBF
DF		10	1	85	56	3.667	2.00	3.67	6.1	20.0	.63	22	73	71	25	8
DF		11	1	87	88	3.031	2.00	6.06	11.0	50.0	1.89	66	303	212	74	34
DF		13	5	88	92	10.849	10.00	17.36	16.3	62.5	8.08	284	1,085	906	318	122
DF		14	3	88	106	5.613	6.00	11.23	19.6	86.7	6.27	220	973	703	247	109
DF		15	2	87	84	3.259	4.00	4.89	18.4	56.7	2.57	90	277	288	101	31
DF		16	4	89	116	5.730	8.00	12.89	25.3	111.1	9.28	326	1,432	1,039	365	160
DF		17	8	89	121	10.151	16.00	25.38	27.0	116.5	19.52	685	2,956	2,187	767	331
DF		18	4	88	107	4.527	8.00	10.19	28.9	117.8	8.39	294	1,200	940	330	134
DF		19	5	89	118	5.079	10.00	11.17	37.5	156.4	11.94	419	1,747	1,337	469	196
DF		20	6	89	118	5.500	12.00	12.83	37.5	158.6	13.71	481	2,035	1,535	539	228
DF		21	5	89	120	4.158	10.00	10.81	39.5	176.9	12.18	428	1,912	1,365	479	214
DF		22	5	88	126	3.788	10.00	9.09	46.2	205.0	11.97	420	1,864	1,341	470	209
DF		23	5	89	134	3.466	10.00	10.40	45.9	211.3	13.60	477	2,197	1,523	534	246
DF		24	1	89	130	.637	2.00	1.91	50.3	230.0	2.74	96	439	306	107	49
DF		25	1	90	135	.587	2.00	1.76	54.3	220.0	2.73	96	387	305	107	43
DF		26	3	89	143	1.627	6.00	4.88	62.5	308.9	8.70	305	1,508	975	342	169
DF		27	3	89	134	1.509	6.00	4.02	70.8	360.0	8.11	285	1,449	909	319	162
DF		28	2	89	128	.935	4.00	2.34	75.5	374.0	5.04	177	875	564	198	98
DF		30	1	89	155	.407	2.00	1.22	85.6	440.0	2.98	105	538	334	117	60
DF		31	2	89	169	.763	4.00	2.67	87.8	485.7	6.68	235	1,297	749	263	145
DF		32	3	89	138	1.074	6.00	2.51	110.0	542.9	7.86	276	1,361	880	309	152
DF		33	2	90	164	.673	4.00	2.02	109.4	591.7	6.30	221	1,195	705	248	134
DF		34	2	90	147	.634	4.00	2.22	87.7	511.4	5.55	195	1,136	621	218	127
DF		36	2	90	144	.566	4.00	1.70	114.1	616.7	5.52	194	1,047	618	217	117
DF		38	1	90	169	.254	2.00	.76	147.2	833.3	3.20	112	635	358	126	71
DF		39	1	90	171	.241	2.00	.96	119.9	702.5	3.30	116	677	369	129	76
DF		40	1	89	147	.229	2.00	.69	147.1	810.0	2.88	101	557	323	113	62
DF		42	1	89	130	.208	2.00	.42	203.4	1060.0	2.41	85	441	270	95	49
DF		Totals	80	88	112	79.163	160.00	176.04	38.7	179.5	194.03	6,808	31,597	21,732	7,625	3,539
WH		9	1	86	76	8.157	3.60	8.16	11.3	40.0	2.94	92	326	330	103	37
WH		12	2	87	83	9.177	7.21	13.76	14.3	50.0	6.29	196	688	704	220	77
WH		19	1	89	100	1.830	3.60	3.66	36.7	140.0	4.30	134	512	481	150	57
WH		21	1	91	88	1.498	3.60	3.00	27.8	115.0	2.67	83	345	299	93	39
WH		22	1	89	129	1.365	3.60	4.10	42.5	203.3	5.57	174	833	624	195	93
WH		23	1	93	132	1.249	3.60	3.75	50.5	253.3	6.06	189	949	679	212	106
WH		24	1	90	126	1.147	3.60	3.44	47.4	220.0	5.22	163	757	585	183	85
WH		27	2	91	116	1.813	7.21	4.53	67.0	334.0	9.72	304	1,514	1,089	340	170
WH		29	1	87	138	.786	3.60	2.36	78.8	343.3	5.94	186	809	666	208	91
WH		42	1	86	121	.375	3.60	.75	206.5	960.0	4.95	155	719	555	173	81
WH		Totals	12	88	93	27.396	43.24	47.50	35.3	156.9	53.66	1,677	7,452	6,010	1,878	835
RA		10	1	93	90	4.295	2.34	4.29	12.4	60.0	1.47	53	258	165	60	29
RA		12	1	85	52	2.982	2.34	2.98	11.1	30.0	.91	33	89	102	37	10
RA		13	2	89	70	5.082	4.68	7.62	16.9	70.0	3.54	129	534	397	144	60
RA		15	3	83	64	5.726	7.03	7.63	24.3	80.0	5.09	185	611	571	207	68
RA		16	2	91	76	3.355	4.68	5.03	24.8	96.7	3.43	125	486	384	140	54
RA		17	1	89	67	1.486	2.34	1.49	36.8	120.0	1.50	55	178	168	61	20
RA		18	2	89	64	2.651	4.68	2.65	38.5	105.0	2.81	102	278	314	114	31
RA		Totals	12	88	70	25.578	28.11	31.71	21.5	76.8	18.76	682	2,435	2,101	764	273
OC		15	1	85	61	.881	1.08									
OC		26	1	87	100	.293	1.08									

TC TSTNDSUM

Stand Table Summary

Project **ENRS**

T03N R07W S29 T0100

T03N R07W S29 T0100

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03N	**07W**	**29**	**503**	**0100**	112.00	37	106

Page: **2**
Date: **09/23/202**
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Spc	S T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
OC		Totals	2	85	71	1.174	2.16									
Totals			106	88	100	133.310	233.51	255.25	35.9	162.5	266.45	9167	41,484	29,842	10,267	4,646

TC TLOGSTVB

Log Stock Table - MBF

Project: ENRS

T03N R07W S29 T0100 **T03N R07W S29 T0100**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1
03N	07W	29	503	0100	112.00	37	106	Date	9/23/2021
								Time	3:47:06PM

	S	So	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches											
Spp	T	rt	de	Len	MBF	Def	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF		CO	2	16	14		14	.4									14			
DF		CO	2	32	40		40	1.1							8			33		
DF		CO	2	40	2,307	.9	2,286	64.6						434	401	664	391	358	38	
DF		CO	3	18	2		2	.1					2							
DF		CO	3	20	7		7	.2								7				
DF		CO	3	22	2		2	.1				2								
DF		CO	3	26	20		20	.6						20						
DF		CO	3	32	44		44	1.3			4	14		26						
DF		CO	3	34	4		4	.1					4							
DF		CO	3	36	4		4	.1					4							
DF		CO	3	40	957	1.4	943	26.6			155	250	411	127						
DF		CO	4	16	11		11	.3		9			2							
DF		CO	4	17	5		5	.2		5										
DF		CO	4	19	2		2	.0			2									
DF		CO	4	20	21		21	.6				6	15							
DF		CO	4	21	13		13	.4		13										
DF		CO	4	25	2		2	.1			2									
DF		CO	4	26	3		3	.1		3										
DF		CO	4	27	25	7.3	23	.7		16	8									
DF		CO	4	28	15		15	.4		13	2									
DF		CO	4	29	10		10	.3		10										
DF		CO	4	30	7		7	.2		7										
DF		CO	4	31	2		2	.1		2										
DF		CO	4	32	10		10	.3		10										
DF		CO	4	33	7		7	.2		4	4									
DF		CO	4	34	9		9	.2		9										
DF		CO	4	36	7		7	.2			4	4								
DF		CO	4	37	6		6	.2		6										
DF		CO	4	40	17		17	.5		17										
DF		Totals			3,575	1.0	3,539	76.2		125	180	276	438	607	409	671	404	391	38	
WH		CO	2	29	35		35	4.2							35					
WH		CO	2	40	603	2.2	590	70.7						97	32	272	125	64		
WH		CO	3	24	15		15	1.8						15						
WH		CO	3	32	5		5	.6			5									
WH		CO	3	40	97		97	11.6				46	51							
WH		CO	4	16	3		3	.4		3										
WH		CO	4	21	3		3	.3		3										
WH		CO	4	23	12		12	1.5		12										
WH		CO	4	26	5		5	.5		5										
WH		CO	4	27	4		4	.5		4										
WH		CO	4	37	29		29	3.4		29										
WH		CO	4	39	37		37	4.4		37										
WH		Totals			848	1.6	835	18.0		92	5	46	51	113	67	272	125	64		
RA		H	3	40	83		83	30.3					83							
RA		H	4	15	4		4	1.4			4									
RA		H	4	18	6		6	2.4				6								
RA		H	4	25	9		9	3.1			9									
RA		H	4	26	10		10	3.7			10									
RA		H	4	32	11		11	3.9			11									

TC TLOGSTVB

Log Stock Table - MBF

Project: ENRS

T03N R07W S29 T0100 **T03N R07W S29 T0100**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03N	07W	29	503	0100	112.00	37	106

Page 2
Date 9/23/2021
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Spp	S T	So rt	Gr de	Log Len	Gross MBF	% Def	Net MBF	% Spc	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+
RA		H	4	37	17		17	6.3			17									
RA		H	4	39	38		38	13.8			38									
RA		H	4	40	96		96	35.2				96								
RA		Totals			273		273	5.9			88	102	83							
Total All Species					4,696	1.1	4,646	100.0		217	273	425	571	719	475	943	529	455	38	

T **TSPCSTGR**

Species, Sort Grade - Board Foot Volumes (Type)

Project: ENRS

Page 1
Date 9/23/2021
Time 3:43:08PM

T03N R07W S29 T0100 **T03N R07W S29 T0100**

Twp	**Rge**	**Sec**	**Tract**	**Type**	**Acres**	**Plots**	**Sample Trees**	**CuFt**	**BdFt**
03N	**07W**	**29**	**502**	**0100**	**110.00**	31	178	**S**	**W**

				%	Bd. Ft. per Acre				Percent Net Board Foot Volume								Average Log				Logs
								Total	Log Scale Dia.				Log Length								Per
Spp	ST	Sort	Grad	Net BdFt	Def%	Gross	Net	Net MBF	4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99	Ln Ft	Dia In	Bd Ft	CF/Lf	/Acre
DF		CO	2	84	1.9	28,231	27,683	3,045			19	81	0			100	40	18	582	3.02	47.6
DF		CO	3	12	2.1	4,013	3,928	432		78	17	5	1	2	2	95	39	10	131	0.95	29.9
DF		CO	4	4		1,219	1,219	134	14	76		10	24	32	26	17	26	7	56	0.65	21.7
DF	**Totals**			90	1.9	33,463	32,830	3,611	1	12	18	69	1	1	1	96	37	13	331	1.99	99.1
WH		CO	2	73	.7	2,233	2,216	244			34	66				100	40	17	482	2.54	4.6
WH		CO	3	19		569	569	63		55	45					100	40	9	134	1.00	4.3
WH		CO	4	8		222	222	24	49	51			54	33	12		19	6	24	0.42	9.2
WH	**Totals**			8	.5	3,024	3,007	331	4	14	33	49	4	2	1	93	29	9	167	1.35	18.0
RA		H	4	100		327	327	36		100				32	45	24	29	6	45	0.66	7.2
RA	**Totals**			1		327	327	36		100				32	45	24	29	6	45	0.66	7.2
BM		H	4	100	17.0	166	138	15		100			5	20	22	53	25	7	42	1.05	3.3
BM	**Totals**			0	17.0	166	138	15		100			5	20	22	53	25	7	42	1.05	3.3
DL		CO	2	95		199	199	22				100				100	40	24	1060	4.75	.2
DL		CO	3	5		8	8	1			100		100				19	12	90	1.38	.1
DL	**Totals**			1		208	208	23			4	96	4			96	33	20	737	4.11	.3
SS		CO	3	91	12.5	90	79	9			100					100	40	13	210	2.03	.4
SS		CO	4	9		8	8	1	100					100			21	5	20	0.53	.4
SS	**Totals**			0	11.5	98	86	10	9		91			9		91	31	9	115	1.51	.8
Type Totals					1.8	37,285	36,596	4,026	1	13	19	67	2	2	2	95	35	12	284	1.83	128.7

TC TSTNDSUM

Stand Table Summary

Project **ENRS**

T03N R07W S29 T0100 **T03N R07W S29 T0100**

Twp	**Rge**	**Sec**	**Tract**	**Type**	**Acres**	**Plots**	**Sample Trees**
03N	**07W**	**29**	**502**	**0100**	110.00	31	178

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					Av				**Average Log**			**Net**	**Net**	**T o t a l s**		
	S		**Sample**	**FF**	**Ht**	**Trees/**	**BA/**	**Logs**	**Net**	**Net**	**Tons/**	**Cu.Ft.**	**Bd.Ft.**			
Spc	**T**	**DBH**	**Trees**	**16'**	**Tot**	**Acre**	**Acre**	**Acre**	**Cu.Ft.**	**Bd.Ft.**	**Acre**	**Acre**	**Acre**	**Tons**	**Cunits**	**MBF**
DF		15	1	80	84	1.685	2.07	3.37	18.2	50.0	1.75	61	168	192	67	19
DF		16	1	82	112	1.481	2.07	2.96	26.2	95.0	2.21	78	281	244	85	31
DF		17	2	84	115	2.623	4.13	5.25	30.0	120.0	4.49	158	630	494	173	69
DF		18	1	80	139	1.170	2.07	3.51	24.9	90.0	2.49	87	316	274	96	35
DF		19	1	82	109	1.050	2.07	2.10	37.4	130.0	2.24	78	273	246	86	30
DF		20	1	82	125	.948	2.07	2.84	30.7	116.7	2.49	87	332	274	96	36
DF		21	2	80	104	1.719	4.13	3.44	39.9	125.0	3.91	137	430	430	151	47
DF		23	2	82	124	1.433	4.13	4.30	41.0	150.0	5.02	176	645	553	194	71
DF		24	1	81	129	.658	2.07	1.97	43.7	166.7	2.46	86	329	270	95	36
DF		26	3	87	143	1.682	6.20	5.05	59.8	277.8	8.59	302	1,402	945	332	154
DF		27	5	85	138	2.600	10.34	7.80	62.3	282.7	13.84	486	2,204	1,522	534	242
DF		28	7	84	126	3.384	14.47	9.67	64.9	298.0	17.89	628	2,881	1,968	691	317
DF		29	4	83	155	1.803	8.27	5.86	72.6	343.1	12.12	425	2,010	1,333	468	221
DF		30	3	86	146	1.263	6.20	3.79	81.7	402.2	8.83	310	1,524	971	341	168
DF		31	4	85	157	1.578	8.27	4.73	92.5	466.7	12.47	438	2,209	1,372	481	243
DF		32	6	81	133	2.221	12.40	6.66	82.4	372.2	15.65	549	2,480	1,721	604	273
DF		33	4	81	135	1.392	8.27	3.83	95.7	440.0	10.44	366	1,685	1,148	403	185
DF		34	4	82	142	1.311	8.27	3.93	101.7	450.8	11.41	400	1,774	1,255	440	195
DF		35	1	86	146	.309	2.07	.93	111.7	483.3	2.95	104	449	325	114	49
DF		36	5	79	147	1.462	10.34	4.39	113.2	512.0	14.15	496	2,246	1,556	546	247
DF		37	5	81	147	1.384	10.34	4.15	121.5	566.7	14.38	504	2,353	1,582	555	259
DF		38	4	83	150	1.050	8.27	3.15	133.3	669.2	11.96	420	2,108	1,316	462	232
DF		39	3	78	153	.748	6.20	2.24	136.7	644.4	8.73	306	1,445	961	337	159
DF		40	1	86	162	.237	2.07	.71	156.5	846.7	3.17	111	602	349	122	66
DF		41	2	82	147	.451	4.13	1.35	154.1	778.3	5.94	209	1,053	654	229	116
DF		44	1	80	154	.196	2.07	.59	178.5	853.3	2.99	105	501	329	115	55
DF		45	1	83	148	.187	2.07	.56	183.6	893.3	2.94	103	502	323	113	55
DF		Totals	75	83	132	36.023	155.04	99.13	72.7	331.2	205.51	7,211	32,830	22,606	7,932	3,611
WH		8	2	67	20	8.153	2.85									
WH		9	1	75	21	3.221	1.42	3.22	5.1	20.0	.53	16	64	58	18	7
WH		11	1	80	31	2.156	1.42	2.16	9.2	20.0	.63	20	43	70	22	5
WH		12	1	74	17	1.812	1.42	1.81	7.4	20.0	.43	13	36	47	15	4
WH		17	1	77	60	.903	1.42	.90	40.7	70.0	1.18	37	63	129	40	7
WH		20	1	79	107	.652	1.42	1.30	41.7	130.0	1.74	54	170	192	60	19
WH		21	2	85	124	1.183	2.85	3.55	37.7	161.7	4.28	134	574	470	147	63
WH		25	1	82	102	.417	1.42	.83	67.6	230.0	1.80	56	192	198	62	21
WH		28	1	88	150	.333	1.42	.67	104.8	580.0	2.23	70	386	246	77	42
WH		29	1	85	134	.310	1.42	.93	64.3	313.3	1.91	60	292	211	66	32
WH		31	2	81	136	.543	2.85	1.63	85.9	393.3	4.48	140	641	492	154	70
WH		35	1	82	143	.213	1.42	.64	113.5	556.7	2.32	73	356	255	80	39
WH		37	1	72	134	.191	1.42	.38	97.1	500.0	1.18	37	191	130	41	21
WH		Totals	16	74	43	20.088	22.77	18.03	39.4	166.8	22.71	710	3,007	2,498	781	331
RA		11	1	75	37	2.300	1.52	2.30	9.0	30.0	.57	21	69	63	23	8
RA		12	1	77	62	1.933	1.52	1.93	17.2	50.0	.91	33	97	100	37	11
RA		15	1	78	42	1.237	1.52	1.24	22.0	40.0	.75	27	49	83	30	5
RA		18	2	79	43	1.718	3.04	1.72	32.4	65.0	1.53	56	112	168	61	12
RA		Totals	5	77	46	7.187	7.59	7.19	19.0	45.5	3.76	137	327	414	150	36
DL		46	1	80	137	.094	1.08	.28	135.5	736.7	1.05	38	208	116	42	23
DL		Totals	1	80	137	.094	1.08	.28	135.5	736.7	1.05	38	208	116	42	23

TC TSTNDSUM

Stand Table Summary

Project **ENRS**

T03N R07W S29 T0100 **T03N R07W S29 T0100**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03N	07W	29	502	0100	110.00	31	178

Page: 2
Date: 09/23/2021
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Spc	S T	DBH	Sample Trees	FF 16'	Av Ht Tot	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
BM		14	1	72	29	1.352	1.45	1.35	13.9	20.0	.50	19	27	55	21	3
BM		19	1	74	67	.734	1.45	1.47	28.1	55.0	1.10	41	81	120	45	9
BM		23	1	74	39	.501	1.45	.50	54.1	60.0	.72	27	30	79	30	3
BM		Totals	3	73	42	2.587	4.34	3.32	26.3	41.5	2.31	87	138	254	96	15
SS		23	1	82	73	.376	1.08	.75	46.2	115.0	.90	35	86	99	38	10
SS		Totals	1	82	73	.376	1.08	.75	46.2	115.0	0.90	35	86	99	38	10
OC		22	1	88	118	.411	1.08									
OC		Totals	1	88	118	.411	1.08									
Totals			102	79	92	66.766	192.99	128.70	63.9	284.4	236.25	8218	36,596	25,987	9,039	4,026

TC TLOGSTVB

Log Stock Table - MBF

Project: **ENRS**

T03N R07W S29 T0100 **T03N R07W S29 T0100**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	
03N	07W	29	502	0100	110.00	31	178	Page 1 Date 9/23/2021 Time 3:43:08PM

Spp	S T	So rt	Gr de	Log Len	Gross MBF	% Def	Net MBF	% Spc	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		CO	2	16	11	25.0	9	.2									9			
DF		CO	2	36	4		4	.1						4						
DF		CO	2	40	3,069	1.9	3,012	83.4						155	225	989	975	636	32	
DF		CO	2	43	21		21	.6							21					
DF		CO	3	16	7	22.2	6	.2								6				
DF		CO	3	26	5		5	.1				5								
DF		CO	3	30	3		3	.1				3								
DF		CO	3	32	4		4	.1				4								
DF		CO	3	35	3		3	.1			3									
DF		CO	3	40	420	1.8	412	11.4			24	79	218	75		15				
DF		CO	4	12	1		1	.0				1								
DF		CO	4	15	1		1	.0				1								
DF		CO	4	16	13		13	.4								13				
DF		CO	4	19	8		8	.2		2		6								
DF		CO	4	20	9		9	.3		4	4	2								
DF		CO	4	21	2		2	.0		2										
DF		CO	4	22	4		4	.1			4									
DF		CO	4	23	4		4	.1		2	2									
DF		CO	4	24	2		2	.1				2								
DF		CO	4	25	9		9	.3		4		2	3							
DF		CO	4	27	5		5	.1			2	3								
DF		CO	4	28	3		3	.1			3									
DF		CO	4	29	11		11	.3				5	6							
DF		CO	4	30	3		3	.1				3								
DF		CO	4	31	9		9	.3			3		7							
DF		CO	4	32	4		4	.1				4								
DF		CO	4	33	4		4	.1					4							
DF		CO	4	34	7		7	.2				7								
DF		CO	4	35	12		12	.3			4		8							
DF		CO	4	36	5		5	.1					5							
DF		CO	4	37	9		9	.2				4	4							
DF		CO	4	40	10		10	.3		7		4								
DF		Totals			3,681	1.9	3,611	89.7		19	49	134	255	234	246	1022	983	636	32	
WH		CO	2	40	246	.7	244	73.7						22	42	44	112	24		
WH		CO	3	40	63		63	18.9			14	10	10	13		15				
WH		CO	4	15	1		1	.3				1								
WH		CO	4	16	11		11	3.3		4	7									
WH		CO	4	17	1		1	.4		1										
WH		CO	4	21	1		1	.4				1								
WH		CO	4	23	5		5	1.4		5										
WH		CO	4	25	2		2	.6		2										
WH		CO	4	33	3		3	.9					3							
WH		Totals			333		331	8.2		12	22	13	13	35	42	59	112	24		
RA		H	4	21	8		8	21.1			8									
RA		H	4	22	4		4	10.5			4									
RA		H	4	31	5		5	15.1			5									
RA		H	4	35	11		11	29.6			11									
RA		H	4	40	9		9	23.7				9								
RA		Totals			36		36	.9			27	9								

TC TLOGSTVB

Log Stock Table - MBF

Project: ENRS

T03N R07W S29 T0100 **T03N R07W S29 T0100**

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees
03N	07W	29	502	0100	110.00	31	178

Page 2
Date 9/23/2021
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Spp	S T	So rt	Gr de	Log Len	Gross MBF	% Def	Net MBF	% Spc	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+
BM		H	4	12	1		1	5.3			1									
BM		H	4	22	4	33.3	3	19.6			3									
BM		H	4	31	3		3	21.8				3								
BM		H	4	40	10	16.7	8	53.3				8								
BM				Totals	18	17.0	15	.4			4	11								
DL		CO	2	40	22		22	95.9								6		16		
DL		CO	3	19	1		1	4.1						1						
DL				Totals	23		23	.6						1		6		16		
SS		CO	3	40	10	12.5	9	91.3						9						
SS		CO	4	21	1		1	8.7		1										
SS				Totals	11	11.5	10	.2		1				9						
Total All Species					4,101	1.8	4,026	100.0		32	102	167	267	278	289	1087	1096	675	32	

OREGON DEPARTMENT OF FORESTRY

"STEWARDSHIP IN FORESTRY"

Enright Station

Volume Summary

Unit 1-Modified Clearcut				
	112 acres			
	Cruised Net	Cruised Net	Hidden	Net Sale
SPECIES	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	31.60	3539	1%	3504
Hemlock	7.45	835	1%	827
Spruce		0	1%	0
Noble Fir		0	1%	0
Alder	2.44	273	2%	268
TOTAL	41.5	4647.0		4599

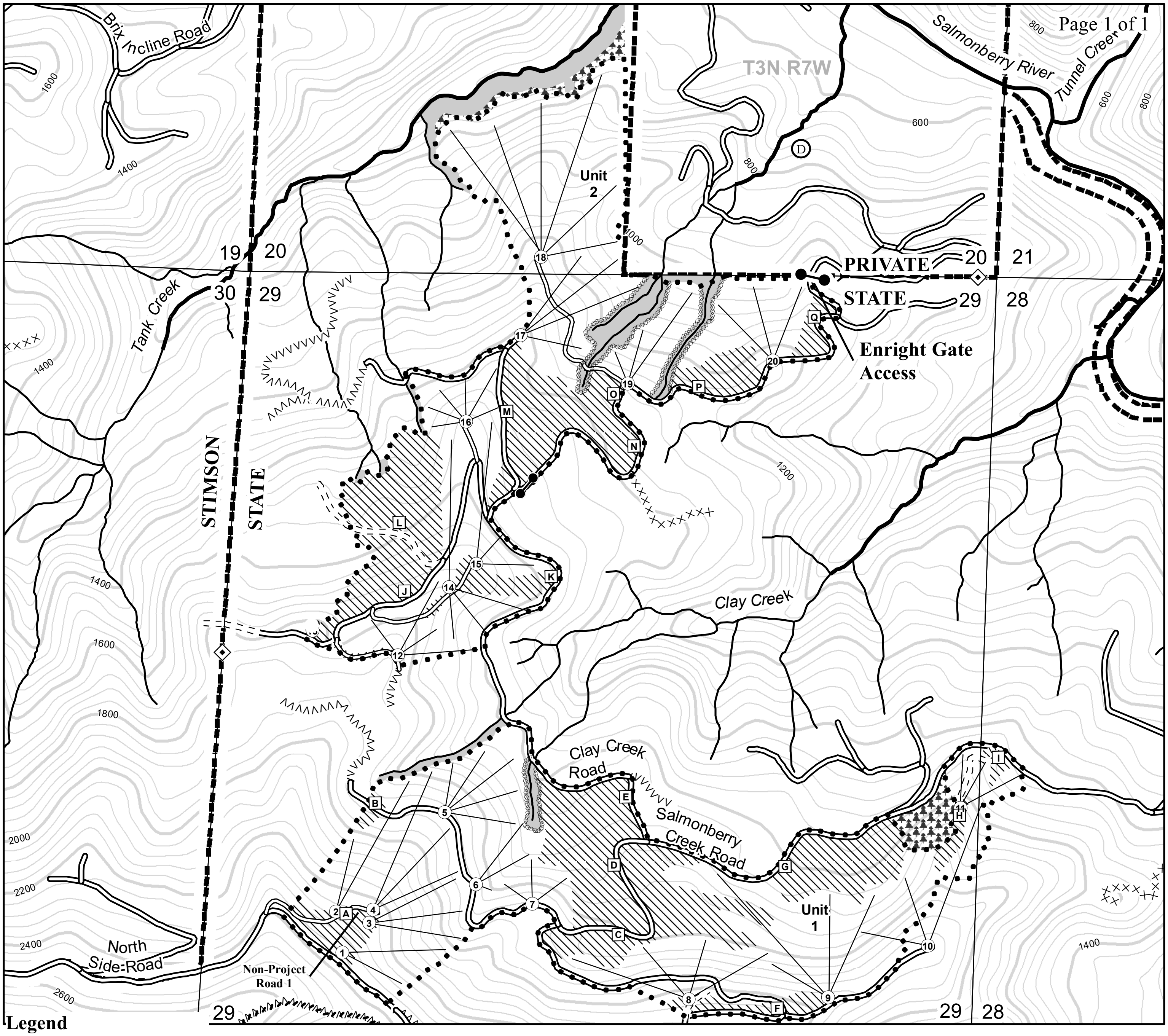
Unit 2-Modified Clearcut				
	110 acres			
	Cruised Net	Cruised Net	Hidden	Net Sale
SPECIES	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	33	3611	1%	3575
Hemlock	3.01	331	1%	328
Spruce		0	1%	0
Noble Fir		0	1%	0
Alder	0.33	36	2%	35
TOTAL	36	3978		3938

"STEWARDSHIP IN FORESTRY"

Enright Station

Volume Summary

TOTAL SALE VOLUME	**222**	**acres**
SPECIES	Cruised Net (MBF)	Net Sale (MBF)
Douglas-fir	7150	7080
Hemlock	1166	1154
Spruce	0	0
Noble Fir	0	0
Red Alder	309	303
TOTAL	8625	8537



Legend

- ◈ Corners
- Ⓓ Domestic Water Intake
- ●–● Gates
- ○ Cable Landing
- ☐ Tractor Landing
- Cable Logging
- ▨ Ground Based
- Riparian Buffer
- Green Tree Retention Area
- • • • Timber Sale Boundary
- Riparian Boundary
- Recreation Trail
- Surfaced Road
- = = = Unsurfaced Road
- ×××× Blocked Road
- vvvvv Abandoned Road
- Type-F STream
- Type-N Stream
- Property Line
- 200' Contour
- 40' Contour

LOGGING PLAN

FOR TIMBER SALE CONTRACT TL-341-2022-W00488-01
ENRIGHT STATION
PORTIONS OF SECTIONS 20, 28, 29, T3N, R7W, W.M.
TILLAMOOK COUNTY, OREGON

Tillamook District GIS
September, 2021
This product is for informational use and may not be suitable for legal, engineering, or surveying purposes.

N

1:12,000
1 inch = 1,000 feet

0 250 500 1,000 1,500 2,000 Feet

NET ACRES

	GROUND	CABLE
UNIT 1	38	74
UNIT 2	35	75
TOTAL	73	149