Timber Sale Appraisal
Two Mac

Sale FG-341-2023-W00946-01

District: Forest Grove

Date: November 21, 2022

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	$4,164,656.74	$0.00	$4,164,656.74
		Project Work:	($414,832.00)
		Advertised Value:	$3,749,824.74

Timber Sale Appraisal
Two Mac
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District: Forest Grove **Date: November 21, 2022**

Timber Description

Location:

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	23	0	98
Western Hemlock / Fir	14	0	98

Volume by Grade	2S	3S & 4S 6"-11"	Total
Douglas - Fir	6,126	1,237	7,363
Western Hemlock / Fir	138	78	216
Total	6,264	1,315	7,579

Comments: LOCAL POND VALUES, NOVEMBER 2022

WESTERN HEMLOCK AND OTHER CONIFERS:
STUMPAGE PRICE = POND VALUE - WESTERN HEMLOCK/FIR LOGGING COST
$211.33 = $614.58 - $403.25

WESTERN REDCEDAR AND OTHER CEDARS:
STUMPAGE PRICE = POND VALUE - DOUG-FIR LOGGING COST
$1,040.63 = $1,326.00 - $285.37

RED ALDER AND OTHER HARDWOODS:
STUMPAGE PRICE = POND VALUE - DOUG-FIR LOGGING COST
$385.63 = $671 - $285.37

BRANDING AND PAINTING ALLOWANCE = $2.00/MBF

FUEL COST ALLOWANCE = $5.00/GAL

HAULING COST ALLOWANCE = $1,200/DAY

OTHER COSTS (WITH PROFIT & RISK ADDED): N/A

OTHER COSTS (NO PROFIT & RISK ADDED):

EQUIPMENT CLEANING: 3 PIECES @ $1,000/PIECE = $3,000

MACHINE TIME TO PILE LANDING SLASH & SORT FIREWOOD:
30 HOURS X $150/HOUR = $4,500

MACHINE TIME TO BLOCK/WATERBAR ROADS AND SKID TRAILS:
20 HOURS X $150/HOUR = $3,000

TOTAL OTHER COSTS (NO P&R) = $10,500

SLASH TREATMENT: 33 ACRES X $250/ACRE = $8,250

ROAD MAINTENANCE (INCLUDES SPOT ROCKING, GRADING, & ROLLING):
MOVE IN: $2,140.97
GENERAL ROAD MAINT: 11.28 miles X $2,077.75 = $23,437.02
TOTAL ROAD MAINTENANCE: $25,577.99 / 7,579 MBF = $3.37/MBF

Timber Sale Appraisal
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District: Forest Grove **Date: November 21, 2022**

Logging Conditions

Combination#: 1

Douglas - Fir	39.70%
Western Hemlock / Fir	67.00%

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: 8 **bd. ft / load:** 4600

cost / mbf: $213.09

machines: Log Loader (A)
Forwarder
Harvester
Tower Yarder (Medium)

Combination#: 2

Douglas - Fir	60.30%
Western Hemlock / Fir	33.00%

Logging System: Shovel **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:** 4600

cost / mbf: $116.18

machines: Forwarder
Harvester

Timber Sale Appraisal
Two Mac
Sale FG-341-2023-W00946-01

District: Forest Grove **Date: November 21, 2022**

Logging Costs

Operating Seasons:	2.00	**Profit Risk:**	15%
Project Costs:	$414,832.00	**Other Costs (P/R):**	$0.00
Slash Disposal:	$8,250.00	**Other Costs:**	$10,500.00

Miles of Road **Road Maintenance:** $3.37

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	3.0	4.8
Western Hemlock / Fir	$0.00	2.0	3.8

Timber Sale Appraisal
Two Mac

Sale FG-341-2023-W00946-01

District: Forest Grove

Date: November 21, 2022

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Brand & Paint	Other	Total
Douglas - Fir									
$154.65	$3.44	$1.16	$85.00	$0.00	$36.64	$1.09	$2.00	$1.39	$285.37
Western Hemlock / Fir									
$181.11	$3.44	$1.16	$161.05	$0.00	$52.01	$1.09	$2.00	$1.39	$403.25

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	$0.00	$844.79	$559.42	$0.00
Western Hemlock / Fir	$0.00	$614.58	$211.33	$0.00

Timber Sale Appraisal
Two Mac
Sale FG-341-2023-W00946-01

District: Forest Grove **Date: November 21, 2022**

Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	$0.00	$0.00
Western Hemlock / Fir	0	$0.00	$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	7,363	$559.42	$4,119,009.46
Western Hemlock / Fir	216	$211.33	$45,647.28

Gross Timber Sale Value

Recovery: $4,164,656.74

Prepared By: Adrian Torres **Phone:** 503-359-7460

TIMBER SALE SUMMARY
Two Mac
#FG-341-2023-W00946-01

1. **Location:** Portions of Sections 22, 23, 24, 26, and 27, T4N, R6W, W.M., Clatsop County, Oregon.

2. **Type of Sale:** This timber sale is 187 net acres of Modified Clearcut. The timber will be sold on a recovery basis at a sealed bid auction.

3. **Revenue Distribution:** 100% BOF; 100% Clatsop County.

4. **Sale Acreage:** Acres are net of stream buffers and road prisms. Acreage was determined using ESRI ArcGIS Pro software.

5. **Cruise**: The Timber Sale was cruised by ODF Cruisers in August of 2022. For more information, see Cruise Report.

6. **Timber Description:** The Timber Sale Area consists of a well-stocked, thinned 73 to 80-year-old stand of Douglas-fir and western hemlock with minor components of western red cedar, noble fir and red alder. This timber stand has an average of 178 ft^2 of basal area, an average Douglas-fir DBH of 23 inches. The estimated average net Douglas-fir volume is approximately 39.4 MBF per acre.

7. **Topography and Logging Method:** Slopes within the Timber Sale Area range from 5% to 80% with a mainly north aspect in Unit 1 and Unit 2. Unit 1 is 15% ground-based yarding and 85% cable-based yarding. Unit 2 is 67% ground-based yarding and 33% cable-based yarding. The average cable corridor length is approximately 500 feet and the maximum is approximately 1500 feet. The average horizontal skid trail length is approximately 300 feet and the maximum is approximately 800 feet.

8. **Access:** All access to the Timber Sale Area is on surfaced all-weather roads. From Forest Grove, travel north on Highway 47 through Banks then merge onto Highway 26 westbound and continue for approximately 20 miles to McGregor Road, which is just before mile marker 29. Turn right on McGregor Road and continue for approximately 2.9 miles. To access Unit 1, turn left off of McGregor Road onto unnamed spur road and continue for 0.1 miles. Turn right onto another unnamed spur road and proceed for 0.2 miles to access the southwestern portion of Unit 1. To access Unit 2, continue on McGregor Road for an additional 2.7 miles to access the southern portion of Unit 2.

9. **Projects:**

Project No. 1: Rocked Road Construction	$85,515.32
Project No. 2: Road Improvement	$95,669.94
Project No. 3: Stock Pile Construction	$228,799.85
Project No. 4: Construct and Install 3 Gates	$4,846.88
Total Credit for all Projects	$414,832.00

PROJECT COST SUMMARY SHEET

Timber Sale: Two Mac
Sale Number: FG-341-2023-W00946-01

PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

Road Segment	Length	Cost	Fuel Adjustment
E to F	2+15	$5,776.15	$6,353.77
I to J	12+90	$24,677.37	$27,145.11
M to N	17+95	$41,917.79	$46,109.57
O to P	1+35	$3,924.84	$4,317.33
	34+35 stations 0.65 miles		

Total Rock = 3,129 cy 4" - 0

Move-in = $1,445.05 $1,589.55

TOTAL PROJECT COST = $77,741.20 **$85,515.32**

PROJECT NO. 2: ROAD IMPROVEMENT

Road Segment	Length	Cost	Fuel Adjustment
A to B	332+30	$14,429.89	$15,872.88
C to D	12+20	$16,637.36	$18,301.10
G to H	18+05	$19,305.77	$21,236.35
K to L	44+60	$34,897.05	$38,386.75
	407+15 stations 7.71 miles		

Total Rock = 24 cy 1½" - 0
3,796 cy 4" - 0

Move-in = $1,702.60 $1,872.86

TOTAL PROJECT COST = $86,972.68 **$95,669.94**

PROJECT NO. 3: 15,000 cy (4" - 0) STOCKPILE CONSTRUCTION

Rock Size	Stockpile Measure	Cost	Fuel Adjustment
4" - 0	15,000 cy	$203,928.00	$224,320.80

Total Rock = 17,400 cy 4" - 0

Move-in = $4,071.86 $4,479.05

TOTAL PROJECT COST = $207,999.86 **$228,799.85**

PROJECT NO. 4: CONSTRUCT AND INSTALL 3 GATES

Road Segment	Description	Cost	Fuel Adjustment
Point C	Install Gate	$1,440.00	$1,584.00
Point G	Install Gate	$1,440.00	$1,584.00
Point M	Install Gate	$1,440.00	$1,584.00

Move-in = $86.26 $94.88

TOTAL PROJECT COST = $4,406.26 **$4,846.88**

TOTAL CREDITS = $377,120.00

10% FUEL ADJUSTMENT COST = $37,712.00

TOTAL CREDITS WITH FUEL ADJUSTMENT = $414,832.00

SUMMARY OF CONSTRUCTION COST

Timber Sale: Two Mac | Sale Number: FG-341-2023-W00946-01

Road Segment: A to B | Improvement: 332+30 stations; 6.29 miles

PROJECT NO. 2: ROAD IMPROVEMENT

IMPROVEMENT						
Roadside brushing (light)	2.90	mi @	$850.00	per mi =	$2,467.09	
Grade, ditch, & roll	332.30	sta @	$36.00	per sta =	$11,962.80	
				TOTAL IMPROVEMENT COSTS =		$14,429.89

TOTAL PROJECT COST = $14,429.89

SUMMARY OF CONSTRUCTION COST

Timber Sale: Two Mac Sale Number: FG-341-2023-W00946-01

Road Segment: C to D Improvement: 12+20 stations

0.23 miles

PROJECT NO. 2: ROAD IMPROVEMENT

IMPROVEMENT

Clearing & grubbing (scatter)	0.15	ac @	$862.40	per acre =	$129.36
Roadside brushing (light)	0.28	mi @	$850.00	per mi =	$238.00
Improve turnaround	1	ea @	$41.25	per ea =	$41.25
Approach to landing	2.05	sta @	$690.00	per sta =	$1,414.50
Improve landing	2	ea @	$157.00	per ea =	$314.00
Grade, ditch, & roll	12.20	sta @	$36.00	per sta =	$439.20

TOTAL IMPROVEMENT COSTS = $2,576.31

ROCK

	Rock Size	Base Cost $/cy	Haul Cost $/cy	Placement/ Processing Cost $/cy	Total CY	Rock Cost
Surfacing rock						
Surfacing rock	4" - 0	$9.82	$9.10	$1.22	513	$10,331.82
Junction	4" - 0	$9.82	$9.10	$1.22	48	$966.72
Turnaround	4" - 0	$9.82	$9.10	$1.22	14	$281.96
Landing	4" - 0	$9.82	$9.10	$1.22	120	$2,416.80
				Subtotal =	695	$13,997.30

Totals		
	All Rock =	695
	4" - 0	695

TOTAL ROCK COSTS = $13,997.30

EROSION CONTROL

Grass seed & fertilizer	0.15	ac @	$425.00	per ac =	$63.75

TOTAL EROSION CONTROL COSTS = $63.75

TOTAL PROJECT COST = $16,637.36

SUMMARY OF CONSTRUCTION COST

Timber Sale: Two Mac | Sale Number: FG-341-2023-W00946-01

Road Segment: E to F | Construction: 2+15 stations; 0.04 miles

PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

CONSTRUCTION

Clearing & grubbing (scatter)	0.25	ac @	$1,401.40	per ac =	$350.35	
Balanced road construction	2.15	sta @	$110.00	per sta =	$236.50	
Landing	1	ea @	$314.00	per ea =	$314.00	
Grade, ditch, & roll	2.15	sta @	$36.00	per sta =	$77.40	
				TOTAL CONSTRUCTION COSTS =		$978.25

ROCK

	Rock Size	Base Cost $/cy	Haul Cost $/cy	Placement/ Processing Cost $/cy	Total CY	Rock Cost
Surfacing rock						
Base rock	4" - 0	$9.82	$9.10	$1.22	140	$2,819.60
Landing	4" - 0	$9.82	$9.10	$1.22	95	$1,913.30
				Subtotal =	235	$4,732.90

Totals	All Rock =	235
	4" - 0	235

TOTAL ROCK COSTS = $4,732.90

EROSION CONTROL

Grass seed & fertilizer	0.13	ac @	$500.00	per ac =	$65.00	
				TOTAL EROSION CONTROL COSTS =		$65.00

TOTAL PROJECT COST = $5,776.15

SUMMARY OF CONSTRUCTION COST

Timber Sale: Two Mac | Sale Number: FG-341-2023-W00946-01

Road Segment: G to H | Improvement: 18+05 stations; 0.34 miles

PROJECT NO. 2: ROAD IMPROVEMENT

IMPROVEMENT						
Clearing & grubbing (scatter)	0.21	ac @	$862.40	per acre =	$181.10	
Improve turnaround	1	ea @	$41.25	per ea =	$41.25	
Improve landing	1	ea @	$157.00	per ea =	$157.00	
Grade, ditch, & roll	18.05	sta @	$36.00	per sta =	$649.80	
				TOTAL IMPROVEMENT COSTS =		$1,029.15

CULVERTS						
Culverts and Bands						
18" Diameter	30	LF @	$20.00	per LF =	$600.00	
Markers & Stakes						
Culvert markers	1	ea @	$10.00	per ea =	$10.00	
				TOTAL CULVERT COSTS =		$610.00

ROCK

	Rock Size	Base Cost $/cy	Haul Cost $/cy	Placement/ Processing Cost $/cy	Total CY	Rock Cost
Subgrade rock						
Bedding and backfill	1½" - 0	$16.73	$7.45	$0.50	24	$592.32
				Subtotal =	24	$592.32
Surfacing rock						
Surfacing rock	4" - 0	$9.82	$7.01	$1.22	759	$13,699.95
Junction	4" - 0	$9.82	$7.01	$1.22	48	$866.40
Turnaround	4" - 0	$9.82	$7.01	$1.22	14	$252.70
Landing	4" - 0	$9.82	$7.01	$1.22	120	$2,166.00
				Subtotal =	941	$16,985.05

Totals		
	All Rock =	965
	1½" - 0	24
	4" - 0	941

TOTAL ROCK COSTS = $17,577.37

EROSION CONTROL						
Grass seed & fertilizer	0.21	ac @	$425.00	per ac =	$89.25	
				TOTAL EROSION CONTROL COSTS =		$89.25

TOTAL PROJECT COST = $19,305.77

SUMMARY OF CONSTRUCTION COST

Timber Sale: Two Mac Sale Number: FG-341-2023-W00946-01

Road Segment: I to J Construction: 12+90 stations

0.24 miles

PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

CONSTRUCTION						
Clearing & grubbing (scatter)	1.48	ac @	$1,401.40	per ac =	$2,074.07	
Balanced road construction	12.90	sta @	$110.00	per sta =	$1,419.00	
Turnout	1	ea @	$66.00	per ea =	$66.00	
Turnaround	1	ea @	$82.50	per ea =	$82.50	
Landing	1	ea @	$314.00	per ea =	$314.00	
Grade, ditch, & roll	12.90	sta @	$36.00	per sta =	$464.40	
				TOTAL CONSTRUCTION COSTS =		$4,419.97

CULVERTS						
Culverts and Bands						
18" Diameter	30	LF @	$20.00	per LF =	$600.00	
Markers & Stakes						
Culvert markers	1	ea @	$10.00	per ea =	$10.00	
				TOTAL CULVERT COSTS =		$610.00

ROCK

	Rock Size	Base Cost $/cy	Haul Cost $/cy	Placement/ Processing Cost $/cy	Total CY	Rock Cost
Surfacing rock						
Base rock	4" - 0	$9.82	$7.01	$1.22	839	$15,143.95
Turnout	4" - 0	$9.82	$7.01	$1.22	29	$523.45
Turnaround	4" - 0	$9.82	$7.01	$1.22	20	$361.00
Landing	4" - 0	$9.82	$7.01	$1.22	180	$3,249.00
				Subtotal =	1,068	$19,277.40

Totals		
	All Rock =	1,068
	4" - 0	1,068

TOTAL ROCK COSTS = $19,277.40

EROSION CONTROL						
Grass seed & fertilizer	0.74	ac @	$500.00	per ac =	$370.00	
				TOTAL EROSION CONTROL COSTS =		$370.00

TOTAL PROJECT COST = $24,677.37

SUMMARY OF CONSTRUCTION COST

Timber Sale: Two Mac | Sale Number: FG-341-2023-W00946-01

Road Segment: K to L | Improvement: 44+60 stations; 0.84 miles

PROJECT NO. 2: ROAD IMPROVEMENT

IMPROVEMENT

Clearing & grubbing (scatter)	0.52	ac @	$862.40	per acre =	$448.45
Construct roadside landing	2	ea @	$165.00	per ea =	$330.00
Grade, ditch, & roll	44.60	sta @	$36.00	per sta =	$1,605.60

TOTAL IMPROVEMENT COSTS = $2,384.05

ROCK

	Rock Size	Base Cost $/cy	Haul Cost $/cy	Placement/ Processing Cost $/cy	Total CY	Rock Cost
Surfacing rock						
Surfacing rock	4" - 0	$9.82	$3.91	$1.22	1,874	$28,016.30
Junction	4" - 0	$9.82	$3.91	$1.22	96	$1,435.20
Roadside landing	4" - 0	$9.82	$3.91	$1.22	190	$2,840.50
				Subtotal =	2,160	$32,292.00

Totals		
	All Rock =	2,160
	4" - 0	2,160

TOTAL ROCK COSTS = $32,292.00

EROSION CONTROL

Grass seed & fertilizer	0.52	ac @	$425.00	per ac =	$221.00

TOTAL EROSION CONTROL COSTS = $221.00

TOTAL PROJECT COST = $34,897.05

SUMMARY OF CONSTRUCTION COST

Timber Sale: Two Mac | Sale Number: FG-341-2023-W00946-01

Road Segment: M to N | Construction: 17+95 stations | 0.34 miles

PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

CONSTRUCTION						
Clearing & grubbing (scatter)	2.07	ac @	$1,401.40	per ac =	$2,900.90	
Balanced road construction	17.95	sta @	$110.00	per sta =	$1,974.50	
Road realignment (0+75 to 7+20)						
Excavate & load	1,766	cy @	$1.64	per cy =	$2,896.24	
Haul to Waste Area	2,296	cy @	$1.60	per cy =	$3,673.60	
Shape and compact waste material	2,296	cy @	$0.30	per cy =	$688.80	
Turnaround	1	ea @	$82.50	per ea =	$82.50	
Junction/Turnaround	1	ea @	$148.50	per ea =	$148.50	
Approach to landing	1.30	sta @	$110.00	per sta =	$143.00	
Roadside landing	1	ea @	$165.00	per ea =	$165.00	
Landing	1	ea @	$220.00	per ea =	$220.00	
Landing	1	ea @	$314.00	per ea =	$314.00	
Grade & roll (outslope)	0.75	sta @	$32.20	per sta =	$24.15	
Grade, ditch, & roll	17.20	sta @	$36.00	per sta =	$619.20	
				TOTAL CONSTRUCTION COSTS =		$13,850.39

CULVERTS						
Culverts and Bands						
18" Diameter	70	LF @	$20.00	per LF =	$1,400.00	
Markers & Stakes						
Culvert markers	2	ea @	$10.00	per ea =	$20.00	
				TOTAL CULVERT COSTS =		$1,420.00

ROCK

	Rock Size	Base Cost $/cy	Haul Cost $/cy	Placement/ Processing Cost $/cy	Total CY	Rock Cost
Surfacing rock						
Base rock	4" - 0	$9.82	$4.42	$1.22	1,167	$18,041.82
Junction	4" - 0	$9.82	$4.42	$1.22	48	$742.08
Turnaround	4" - 0	$9.82	$4.42	$1.22	20	$309.20
Approach to landing	4" - 0	$9.82	$4.42	$1.22	85	$1,314.10
Roadside landing	4" - 0	$9.82	$4.42	$1.22	95	$1,468.70
Landing	4" - 0	$9.82	$4.42	$1.22	95	$1,468.70
Landing	4" - 0	$9.82	$4.42	$1.22	180	$2,782.80
				Subtotal =	1,690	$26,127.40

Totals		
	All Rock =	1,690
	4" - 0	1,690

TOTAL ROCK COSTS = $26,127.40

EROSION CONTROL						
Grass seed & fertilizer	1.04	ac @	$500.00	per ac =	$520.00	
				TOTAL EROSION CONTROL COSTS =		$520.00

TOTAL PROJECT COST = $41,917.79

SUMMARY OF CONSTRUCTION COST

Timber Sale: Two Mac | Sale Number: FG-341-2023-W00946-01

Road Segment: O to P | Improvement: 1+35 stations; 0.03 miles

PROJECT NO. 1: ROCKED ROAD CONSTRUCTION

CONSTRUCTION						
Clearing & grubbing (scatter)	0.16	ac @	$1,401.40	per acre =	$224.22	
Balanced road construction	1.35	sta @	$110.00	per sta =	$148.50	
Grade, ditch, & roll	1.35	sta @	$36.00	per sta =	$48.60	
				TOTAL CONSTRUCTION COSTS =		$421.32

CULVERTS						
Culverts and Bands						
18" Diameter	40	LF @	$20.00	per LF =	$800.00	
Markers & Stakes						
Culvert markers	1	ea @	$10.00	per ea =	$10.00	
				TOTAL CULVERT COSTS =		$810.00

ROCK

	Rock Size	Base Cost $/cy	Haul Cost $/cy	Placement/ Processing Cost $/cy	Total CY	Rock Cost
Subgrade rock						
Bedding and backfill	1½" - 0	$16.73	$7.45	$0.50	24	$592.32
				Subtotal =	24	$592.32
Surfacing rock						
Base rock	4" - 0	$9.82	$3.91	$1.22	88	$1,315.60
Junction	4" - 0	$9.82	$3.91	$1.22	48	$717.60
				Subtotal =	136	$2,033.20

Totals		
	All Rock =	160
	1½" - 0	24
	4" - 0	136

TOTAL ROCK COSTS = $2,625.52

EROSION CONTROL						
Grass seed & fertilizer	0.16	ac @	$425.00	per ac =	$68.00	
				TOTAL EROSION CONTROL COSTS =		$68.00

TOTAL PROJECT COST = $3,924.84

SUMMARY OF CONSTRUCTION COST

Timber Sale: Two Mac Sale Number: FG-341-2023-W00946-01

PROJECT NO. 4: CONSTRUCT AND INSTALL 3 GATES

Install gate on C to D						
Construction of posts	1	ea @	$600.00	per ea =	$600.00	
Gate	1	ea @	$440.00	per ea =	$440.00	
Post and gate install	1	ea @	$400.00	per ea =	$400.00	
					TOTAL GATE COSTS =	$1,440.00
Install gate on G to H						
Construction of posts	1	ea @	$600.00	per ea =	$600.00	
Gate	1	ea @	$440.00	per ea =	$440.00	
Post and gate install	1	ea @	$400.00	per ea =	$400.00	
					TOTAL GATE COSTS =	$1,440.00
Install gate on M to N at 0+75						
Construction of posts	1	ea @	$600.00	per ea =	$600.00	
Gate	1	ea @	$440.00	per ea =	$440.00	
Post and gate install	1	ea @	$400.00	per ea =	$400.00	
					TOTAL GATE COSTS =	$1,440.00
					TOTAL PROJECT COST =	$4,320.00

SUMMARY OF CONSTRUCTION COST

Timber Sale: Two Mac Sale Number: FG-341-2023-W00946-01

PROJECT NO. 3: 15,000 cy (4" - 0) STOCKPILE CONSTRUCTION

ROCK

	Rock Size	Base Cost $/cy	Haul Cost $/cy	Placement / Processing Cost $/cy	Total CY	Rock Cost
Stockpile rock						
Stockpile	4" - 0	$9.82	$0.80	$1.10	17,400	$203,928.00
				Subtotal =	17,400	$203,928.00

Totals		
	All Rock =	17,400
	4" - 0 =	17,400

TOTAL PROJECT COST = $203,928.00

SUMMARY OF CONSTRUCTION COST

Timber Sale: Two Mac Sale Number: FG-341-2023-W00946-01

PROJECT No. 1 & 2 MOVE-IN, WITHIN AREA MOVE, & CLEANING COSTS

Equipment	Total
Brush Cutter	$608.20
Grader	$976.60
Roller (smooth/grid) & Compactor	$1,216.40
Excavator (Large) - Equipment Cleaning	$1,976.60
Dozer (Large) - Equipment Cleaning	$2,021.18
Dump Truck (10cy +)	$337.94
Water Truck (2,500 Gal)	$168.85
TOTAL MOVE-IN COSTS =	**$7,305.77**

QUARRY DEVELOPMENT & CRUSHING COST SUMMARY

Timber Sale: Two Mac
Sale Number: FG-341-2023-W00946-01
Stockpile Name: Lower Rock Creek

1 1/2" - 0: 48 cy (truck measure)
Total truck yardage: 48 cy

Move-in					
Move in loader					$764.25
				Subtotal =	$764.25
				Per CY =	$15.92/cy
1 1/2"-0 Base Cost					
Load dump truck	$0.80	/ cy x	48	cy =	$38.40
				Subtotal =	$38.40
				Per CY =	$0.80

1 1/2"-0 Cost = **$16.73/cy**

QUARRY DEVELOPMENT & CRUSHING COST SUMMARY

Timber Sale:	Two Mac
Sale Number:	FG-341-2023-W00946-01
Quarry Name:	West Mac
4" - 0:	6,925 cy (truck measure)
Stockpile:	15,000 cy (stockpile measure)
Total truck yardage:	24,325 cy
Total in place yardage:	23,389 cy
Oversize - Pile:	20%
Swell:	130%
Compaction:	116%

Move-in & Other Base Cost

Quarry development & overburden removal					$7,038.06
Equipment cleaning & move in excavator					$2,611.40
Equipment cleaning & move in dozer					$1,794.83
Move in & setup drill					$445.02
Move in loader					$712.44
Move in & setup crusher					$3,305.08
Move in dump trucks					$305.10
Gradation tests	$71.50	/2,000cy x	13	tests =	$929.50
Clean up quarry					$500.00
				Subtotal =	$17,641.43
				Per CY =	$0.73/cy

4"-0 Base Cost

Drill & shoot	$2.80	/ cy x	23,389	cy =	$65,490.38
Push rock	$1.60	/ cy x	30,406	cy =	$48,650.00
Oversize - Pile	$0.80	/ cy x	6,081	cy =	$4,865.00
Load crusher	$0.80	/ cy x	24,325	cy =	$19,460.00
Crush (4" - 0)	$2.60	/ cy x	6,925	cy =	$18,005.00
Crush (Stockpile)	$2.60	/ cy x	17,400	cy =	$45,240.00
Load dump truck	$0.80	/ cy x	24,325	cy =	$19,460.00
				Subtotal =	$221,170.38
				Per CY =	$9.09/cy

4"-0 Base Cost = **$9.82/cy**

CRUISE REPORT
Two Mac
#FG-341-2023-W00946-01

1. LOCATION:

Portions of Sections 22, 23, 24, 26, and 27, T4N, R6W, W.M., Clatsop County, Oregon.

2. CRUISE DESIGN:

The timber cruise was designed using an estimated coefficient of variation (CV) of 56%, average stand diameter of 23 inches, sampling error (SE) of 9% and a minimum of 100 grade trees.

3. SAMPLING METHOD:

The Timber Sale Area was cruised in August of 2022 with 38 variable radius grade plots using a 40 BAF prism. Plots were laid out on a 7 chain x 7 chain grid. Plots falling on or near existing roads or no-harvest areas were offset 1 chain.

4. CRUISE RESULTS:

170 trees were measured and graded producing a sampling error of 6.5% on the Douglas-fir Basal Area. The sampling error of Douglas-fir Net Board Foot Volume is 6.2%.

5. TREE MEASUREMENT AND GRADING:

All sample trees were measured and graded following the Official Log Scaling and Grading Rules as adopted by the NW Log Rules Advisory Group. 40 foot segments were favored.

a) **Height Standards:** Total tree heights were measured to the nearest foot. Bole heights were calculated to a six-inch top.
b) **Diameter Standards:** Diameters were measured outside bark at breast height to the nearest inch.
c) **Form Factors:** Measured for each grade tree using a form point of 16 feet.

6. DATA PROCESSING:

a) **Volumes and Statistics:** Cruise estimates and sampling statistics were derived from SuperAce 2008 cruise software.

b) **Deductions:** The following percent volume deductions are by species to account for the hidden defect and breakage. For conifers two percent was deducted.

7. CRUISERS: The sale was cruised by ODF cruisers Adrian Torres, Mark Savage, and Kenton Burns.

Prepared by: Adrian Torres 8-22-2022

Reviewed by: Mark Savage 8-22-2022
Date

TC PSTATS

PROJECT STATISTICS

PROJECT TWOMAC

DATE 8/11/2022

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
02N	06	22	00U1	00MC	104.00	20	85	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	20	85	4.3		
CRUISE	20	85	4.3	6,860	1.2
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
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
DOUG FIR	85	66.0	21.7	123	36.5	170.0	38,316	37,929	7,944	7,944
TOTAL	*85*	*66.0*	*21.7*	*123*	*36.5*	*170.0*	*38,316*	*37,929*	*7,944*	*7,944*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL 68.1 SD: 1.0

SAMPLE TREES - BF

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	72.6	7.9	909	987	1,065			
TOTAL	*72.6*	*7.9*	*909*	*987*	*1,065*	*210*	*53*	*23*

CL 68.1 SD: 1.0

SAMPLE TREES - CF

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	64.4	7.0	184	198	212			
TOTAL	*64.4*	*7.0*	*184*	*198*	*212*	*166*	*41*	*18*

CL 68.1 SD: 1.0

TREES/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	98.5	22.6	51	66	81			
TOTAL	*98.5*	*22.6*	*51*	*66*	*81*	*408*	*102*	*45*

CL 68.1 SD: 1.0

BASAL AREA/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	41.0	9.4	154	170	186			
TOTAL	*41.0*	*9.4*	*154*	*170*	*186*	*71*	*18*	*8*

CL 68.1 SD: 1.0

NET BF/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	40.2	9.2	34,436	37,929	41,422			
TOTAL	*40.2*	*9.2*	*34,436*	*37,929*	*41,422*	*68*	*17*	*8*

CL 68.1 SD: 1.0

NET CUFT FT/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	37.9	8.7	7,255	7,944	8,634			
TOTAL	*37.9*	*8.7*	*7,255*	*7,944*	*8,634*	*60*	*15*	*7*

TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T02N R06W S22 Ty00MC 104.00

Project: **TWOMAC**

Acres **104.00**

Page **1**

Date **8/11/2022**

Time **9:59:24AM**

Spp	ST	Sort Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent of Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		CU														9	13		0.00	4.9
DF		2M	78	1.2	30,170	29,823	3,102			31	69	1	1		98	40	17	487	2.39	61.2
DF		3M	18	.6	6,957	6,917	719		96	4			1	2	97	39	8	105	0.71	65.7
DF		4M	4		1,189	1,189	124		100			26	72	2		22	6	28	0.35	42.0
DF	**Totals**		100	1.0	38,316	37,929	3,945		21	25	54	1	4	0	95	34	11	218	1.33	173.8
Totals				1.0	38,316	37,929	3,945		21	25	54	1	4	0	95	34	11	218	1.33	173.8

TC PSTNDSUM

Stand Table Summary

Page 1
Date: 8/11/2022

T02N R06W S22 Ty00MC 104.00

Project TWOMAC
Acres 104.00

Time: 9:59:26AM
Grown Year:

Spc	S T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
DF		10	1	86	88	3.667	2.00	3.67	12.8	60.0	1.33	47	220	139	49	23
DF		12	3	87	95	7.639	6.00	15.28	11.2	45.0	4.90	172	688	509	179	72
DF		13	3	86	101	6.509	6.00	13.02	14.6	60.0	5.42	190	781	564	198	81
DF		15	5	87	104	8.149	10.00	16.30	21.4	92.0	9.93	348	1,499	1,033	362	156
DF		17	1	86	86	1.269	2.00	2.54	23.9	85.0	1.73	61	216	180	63	22
DF		18	2	87	124	2.264	4.00	5.66	30.2	130.0	4.86	171	736	506	177	77
DF		19	3	90	132	3.047	6.00	9.14	29.0	125.6	7.55	265	1,148	786	276	119
DF		20	3	88	123	2.750	6.00	7.33	34.7	148.7	7.24	254	1,091	753	264	113
DF		21	3	86	125	2.495	6.00	6.65	38.1	156.2	7.23	254	1,039	751	264	108
DF		22	2	89	127	1.515	4.00	4.55	40.0	183.3	5.18	182	833	539	189	87
DF		23	7	87	132	4.852	14.00	14.56	43.8	194.3	18.16	637	2,828	1,889	663	294
DF		24	6	87	141	3.820	12.00	10.82	51.3	232.4	15.82	555	2,515	1,645	577	262
DF		25	5	87	138	2.934	10.00	9.39	49.7	226.9	13.30	467	2,130	1,383	485	221
DF		26	2	88	145	1.085	4.00	3.25	62.8	293.3	5.82	204	955	606	212	99
DF		27	1	85	124	.503	2.00	1.51	58.8	253.3	2.53	89	382	263	92	40
DF		28	5	87	154	2.339	10.00	7.95	65.5	326.5	14.84	521	2,596	1,544	542	270
DF		29	3	85	136	1.308	6.00	3.92	72.7	338.9	8.13	285	1,330	845	297	138
DF		30	4	88	157	1.630	8.00	5.70	75.4	382.9	12.25	430	2,184	1,274	447	227
DF		31	6	87	156	2.289	12.00	7.63	83.6	429.0	18.19	638	3,274	1,892	664	340
DF		32	1	87	158	.358	2.00	1.07	98.1	516.7	3.00	105	555	312	110	58
DF		33	5	86	160	1.684	10.00	5.72	93.5	480.0	15.25	535	2,748	1,586	557	286
DF		34	3	86	165	.952	6.00	3.17	103.6	534.0	9.36	329	1,694	974	342	176
DF		35	2	87	164	.599	4.00	2.10	105.7	547.1	6.31	221	1,146	656	230	119
DF		36	2	86	145	.566	4.00	1.70	116.8	605.0	5.65	198	1,027	588	206	107
DF		37	2	86	170	.536	4.00	1.87	122.7	662.9	6.56	230	1,243	682	239	129
DF		38	4	88	159	1.016	8.00	3.81	117.1	643.3	12.71	446	2,451	1,322	464	255
DF		44	1	88	158	.189	2.00	.57	194.3	1093.3	3.15	110	621	327	115	65
DF		Totals	85	87	123	65.962	170.00	168.89	47.0	224.6	226.42	7,944	37,929	23,547	8,262	3,945
Totals			85	87	123	65.962	170.00	168.89	47.0	224.6	226.42	7,944	37,929	23,547	8,262	3,945

TC PLOGSTVB

Log Stock Table - MBF

T02N R06W S22 Ty00MC 104.00

Project: TWOMAC
Acres 104.00

Page 1
Date 8/11/2022
Time 9:59:24AM

Spp	ST	Sort	Grade	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		2M		15	16		16	.4									16			
DF		2M		26	26		26	.7									26			
DF		2M		30	18		18	.5							18					
DF		2M		40	3,078	1.2	3,042	77.1						314	354	1066	763	508	36	
DF		3M		25	2		2	.0				2								
DF		3M		29	2		2	.1			2									
DF		3M		30	2		2	.0				2								
DF		3M		32	4		4	.1			4									
DF		3M		33	3		3	.1			3									
DF		3M		35	11		11	.3			11									
DF		3M		36	15		15	.4			7	7								
DF		3M		37	13		13	.3			13									
DF		3M		40	673		668	16.9			120	242	275	24	8					
DF		4M		12	2		2	.1			1	1								
DF		4M		13	1		1	.0				1								
DF		4M		14	1		1	.0			1									
DF		4M		15	3		3	.1			3									
DF		4M		16	11		11	.3			9	2								
DF		4M		17	5		5	.1			5									
DF		4M		18	8		8	.2			8									
DF		4M		20	2		2	.0			2									
DF		4M		21	8		8	.2			8									
DF		4M		22	7		7	.2			5	1								
DF		4M		23	18		18	.4			16	1								
DF		4M		24	27		27	.7			27									
DF		4M		25	7		7	.2			7									
DF		4M		26	4		4	.1			4									
DF		4M		27	2		2	.1			2									
DF		4M		28	2		2	.1			2									
DF		4M		29	8		8	.2			8									
DF		4M		30	5		5	.1			5									
DF		4M		31	2		2	.1			2									
DF		Totals			3,985	1.0	3,945	100.0			278	259	275	338	380	1066	805	508	36	
Total		All Species			3,985	1.0	3,945	100.0			278	259	275	338	380	1066	805	508	36	

TC PSTATS

PROJECT STATISTICS

PROJECT TWOMAC

DATE 8/11/2022

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
02N	06	22	00U2	00MC	83.00	18	92	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	18	92	5.1		
CRUISE	18	92	5.1	6,016	1.5
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
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
DOUG FIR	75	45.1	26.0	144	32.7	166.7	43,398	42,981	8,620	8,620
DOUG FIR-S	7	10.0	16.9	30	3.8	15.6				
WHEMLOCK	7	14.3	14.1	77	4.1	15.6	2,650	2,650	559	559
WR CEDAR	3	3.0	20.1	97	1.5	6.7	799	799	247	247
TOTAL	*92*	*72.5*	*22.7*	*113*	*42.9*	*204.4*	*46,847*	*46,430*	*9,426*	*9,426*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

CL 68.1 SD: 1.0

SAMPLE TREES - BF

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	45.1	5.2	1,152	1,215	1,279			
DOUG FIR-S								
WHEMLOCK	109.7	44.7	346	624	903			
WR CEDAR	17.0	11.7	238	270	302			
TOTAL	*61.6*	*6.4*	*980*	*1,047*	*1,114*	*152*	*38*	*17*

CL 68.1 SD: 1.0

SAMPLE TREES - CF

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	40.0	4.6	229	240	251			
DOUG FIR-S								
WHEMLOCK	109.3	44.5	71	128	185			
WR CEDAR	19.8	13.7	73	84	96			
TOTAL	*56.7*	*5.9*	*196*	*208*	*220*	*129*	*32*	*14*

CL 68.1 SD: 1.0

TREES/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	57.4	13.9	39	45	51			
DOUG FIR-S	370.9	89.9	1	10	19			
WHEMLOCK	235.3	57.0	6	14	22			
WR CEDAR	234.4	56.8	1	3	5			
TOTAL	*79.1*	*19.2*	*59*	*72*	*86*	*265*	*66*	*29*

CL 68.1 SD: 1.0

BASAL AREA/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	38.8	9.4	151	167	182			
DOUG FIR-S	251.6	61.0	6	16	25			
WHEMLOCK	156.3	37.9	10	16	21			
WR CEDAR	230.1	55.8	3	7	10			
TOTAL	*33.5*	*8.1*	*188*	*204*	*221*	*47*	*12*	*5*

CL 68.1 SD: 1.0

NET BF/ACRE

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	37.5	9.1	39,076	42,981	46,886			
DOUG FIR-S								
WHEMLOCK	162.6	39.4	1,606	2,650	3,694			
WR CEDAR	231.0	56.0	352	799	1,246			

TC PSTATS

PROJECT STATISTICS

PROJECT TWOMAC

DATE 8/11/2022

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
02N	06	22	00U2	00MC	83.00	18	92	S	W

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	*33.1*	*8.0*	*42,710*	*46,430*	*50,151*	*46*	*12*	*5*

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
DOUG FIR	39.1	9.5	7,802	8,620	9,437			
DOUG FIR-S								
WHEMLOCK	159.9	38.7	342	559	776			
WR CEDAR	230.4	55.8	109	247	385			
TOTAL	*34.7*	*8.4*	*8,634*	*9,426*	*10,218*	*51*	*13*	*6*

TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T02N R06W S22 Ty00MC 83.00

Project: **TWOMAC**

Acres **83.00**

Page **1**

Date **8/11/2022**

Time **10:01:14AM**

Spp	ST	Sort Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent of Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		CU														20	9		0.00	12.0
DF		2M	88	1.1	38,350	37,942	3,149			26	74	1			99	40	17	505	2.41	75.1
DF		3M	10	.2	4,462	4,453	370		96	4				7	93	39	8	107	0.78	41.6
DF		4M	2		586	586	49		100			25	33		42	25	7	39	0.41	15.1
DF	**Totals**		93	1.0	43,398	42,981	3,567		11	23	66	1	0	1	98	36	13	299	1.65	143.8
RC		2M	53		424	424	35			100					100	40	13	240	1.84	1.8
RC		3M	36		291	291	24		100						100	40	9	133	1.01	2.2
RC		4M	11		84	84	7		100				100			29	6	40	0.48	2.1
RC	**Totals**		2		799	799	66		47	53			11		89	36	9	132	1.13	6.0
WH		CU														29	6		0.00	1.8
WH		2M	63		1,688	1,688	140			22	78				100	40	19	632	2.95	2.7
WH		3M	20		515	515	43		100				36		64	35	7	69	0.51	7.5
WH		4M	17		447	447	37		100				36	64		30	7	50	0.43	8.9
WH	**Totals**		6		2,650	2,650	220		36	14	50		13	11	76	33	8	127	0.82	20.9
Totals				0.9	46,847	46,430	3,854		13	23	64	1	1	1	96	36	12	272	1.54	170.8

TC PSTNDSUM

Stand Table Summary

Page 1
Date: 8/11/2022

T02N R06W S22 Ty00MC 83.00

Project TWOMAC
Acres 83.00

Time: 10:01:15AM
Grown Year:

Spc	S T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
DF		10	2	62	45	8.149	4.44	4.07	11.5	60.0	1.33	47	244	111	39	20
DF		12	1	56	25	2.829	2.22									
DF		15	1	90	120	1.811	2.22	3.62	23.6	105.0	2.43	85	380	202	71	32
DF		18	1	79	42	1.258	2.22									
DF		19	1	90	140	1.129	2.22	3.39	31.0	140.0	3.00	105	474	249	87	39
DF		20	1	89	141	1.019	2.22	3.06	34.7	160.0	3.02	106	489	251	88	41
DF		21	1	89	153	.924	2.22	2.77	41.0	200.0	3.24	114	554	269	94	46
DF		22	4	86	140	3.367	8.89	10.10	42.6	191.7	12.27	431	1,936	1,019	357	161
DF		23	1	86	148	.770	2.22	2.31	49.5	216.7	3.26	114	501	270	95	42
DF		24	11	87	147	7.781	24.44	23.34	52.4	242.7	34.85	1,223	5,666	2,893	1,015	470
DF		25	6	91	127	3.911	13.33	9.78	58.4	274.7	16.29	571	2,686	1,352	474	223
DF		26	5	86	129	3.014	11.11	7.23	64.8	315.8	13.37	469	2,284	1,109	389	190
DF		27	2	89	154	1.118	4.44	3.91	59.3	294.3	6.61	232	1,151	549	193	96
DF		28	5	89	154	2.598	11.11	7.80	76.6	392.7	17.02	597	3,061	1,413	496	254
DF		29	6	87	149	2.907	13.33	9.20	74.9	371.6	19.66	690	3,420	1,632	573	284
DF		30	7	87	165	3.169	15.56	11.32	75.6	390.4	24.39	856	4,418	2,024	710	367
DF		31	4	87	155	1.696	8.89	5.51	85.3	436.9	13.40	470	2,408	1,112	390	200
DF		32	2	87	168	.796	4.44	3.18	78.4	418.7	7.12	250	1,333	591	207	111
DF		33	3	85	167	1.122	6.67	4.12	89.8	469.1	10.53	370	1,931	874	307	160
DF		34	6	87	159	2.115	13.33	6.70	106.1	548.4	20.24	710	3,673	1,680	590	305
DF		35	5	87	163	1.663	11.11	4.99	95.7	537.3	13.61	478	2,681	1,130	396	223
DF		36	2	87	160	.629	4.44	2.20	110.6	610.0	6.94	243	1,342	576	202	111
DF		37	1	84	157	.298	2.22	.89	125.9	603.3	3.20	112	539	266	93	45
DF		38	1	84	60	.282	2.22									
DF		39	1	84	151	.268	2.22	.80	141.0	740.0	3.23	113	595	268	94	49
DF		40	2	84	161	.509	4.44	1.53	152.5	795.0	6.64	233	1,215	551	193	101
DF		Totals	82	82	123	55.131	182.22	131.83	65.4	326.0	245.66	8,620	42,981	20,390	7,154	3,567
WH		9	1	86	68	5.030	2.22	5.03	9.9	40.0	1.59	50	201	132	41	17
WH		10	1	89	68	4.074	2.22	4.07	12.4	60.0	1.62	51	244	135	42	20
WH		14	1	85	79	2.079	2.22	4.16	15.4	65.0	2.05	64	270	170	53	22
WH		15	1	83	74	1.811	2.22	1.81	21.3	90.0	1.23	39	163	102	32	14
WH		27	1	93	140	.559	2.22	1.68	73.6	393.3	3.95	123	660	328	102	55
WH		31	1	88	140	.424	2.22	1.27	92.7	466.7	3.77	118	594	313	98	49
WH		34	1	81	142	.352	2.22	1.06	108.4	490.0	3.67	115	518	304	95	43
WH		Totals	7	87	77	14.329	15.56	19.08	29.3	138.9	17.89	559	2,650	1,485	464	220
RC		18	1	80	93	1.258	2.22	2.52	32.5	110.0	1.92	82	277	159	68	23
RC		21	1	80	111	.924	2.22	1.85	47.5	155.0	2.06	88	286	171	73	24
RC		22	1	81	87	.842	2.22	1.68	46.2	140.0	1.83	78	236	152	65	20
RC		Totals	3	80	97	3.023	6.67	6.05	40.9	132.1	5.81	247	799	482	205	66
Totals			92	83	113	72.483	204.44	156.95	60.1	295.8	269.36	9,426	46,430	22,357	7,824	3,854

TC PLOGSTVB

Log Stock Table - MBF

T02N R06W S22 Ty00MC 83.00

Project: TWOMAC
Acres 83.00

Page 1
Date 8/11/2022
Time 10:01:13AM

Spp	ST	Sort	Grade	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			2M	20	26		26	.7						6				20		
DF			2M	40	3,157	1.1	3,123	87.5						250	351	1128	880	514		
DF			3M	32	3		3	.1			3									
DF			3M	33	3		3	.1			3									
DF			3M	34	6		6	.2			3	3								
DF			3M	35	12		12	.3			12									
DF			3M	36	3		3	.1			3									
DF			3M	38	3		3	.1			3									
DF			3M	39	9		9	.3			9									
DF			3M	40	331		330	9.3			58	62	196	4	10					
DF			4M	12	1		1	.0				1								
DF			4M	13	3		3	.1			2	1								
DF			4M	15	1		1	.0			1									
DF			4M	16	1		1	.0			1									
DF			4M	17	3		3	.1			2	1								
DF			4M	18	2		2	.1			1	1								
DF			4M	20	1		1	.0				1								
DF			4M	21	1		1	.0				1								
DF			4M	22	1		1	.0				1								
DF			4M	26	1		1	.0			1									
DF			4M	27	4		4	.1			3	1								
DF			4M	28	2		2	.1			2									
DF			4M	30	6		6	.2			6									
DF			4M	36	20		20	.6			20									
DF		Totals			3,602		3,567	92.6			134	74	196	260	361	1128	880	534		
RC			2M	40	35		35	53.1						35						
RC			3M	40	24		24	36.4			5		19							
RC			4M	29	7		7	10.5			7									
RC		Totals			66		66	1.7			12		19	35						
WH			2M	40	140		140	63.7							17	28	96			
WH			3M	24	16		16	7.1					16							
WH			3M	36	2		2	1.0			2									
WH			3M	37	3		3	1.3			3									
WH			3M	39	20		20	9.2			20									
WH			3M	40	2		2	.9			2									

TC PLOGSTVB

Log Stock Table - MBF

T02N R06W S22 Ty00MC 83.00

Project: TWOMAC
Acres 83.00

Page 2
Date 8/11/2022
Time 10:01:13AM

Spp	ST	Sort	Grade	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+
WH		4M		24	14		14	6.1					14							
WH		4M		31	24		24	10.7			24									
WH		Totals			220		220	5.7			51		29		17	28	96			
Total		All Species			3,888		3,854	100.0			197	74	244	295	378	1155	976	534		

PROJECT STATISTICS

PROJECT TWOMAC

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
02N	06	22	00U1	00MC	187.00	38	177	S	W
02N	06W	22	00U2	00MC					

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	38	177	4.7		
CRUISE	38	177	4.7	12,876	1.4
DBH COUNT					
REFOREST					
COUNT					
BLANKS					
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
DOUG FIR	160	56.7	23.3	130	34.9	168.5	40,572	40,171	8,244	8,244
DOUG FIR-S	7	4.5	16.9	30	1.7	6.9				
WHEMLOCK	7	6.4	14.1	77	1.8	6.9	1,176	1,176	248	248
WR CEDAR	3	1.3	20.1	97	0.7	3.0	355	355	110	110
TOTAL	*177*	*68.9*	*22.2*	*118*	*39.3*	*185.3*	*42,103*	*41,702*	*8,602*	*8,602*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ERROR

SAMPLE TREES - BF

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	59.5	4.7	1,043	1,094	1,145			
DOUG FIR-S								
WHEMLOCK	109.7	44.7	346	624	903			
WR CEDAR	17.0	11.7	238	270	302			
TOTAL	*66.7*	*5.0*	*967*	*1,018*	*1,069*	*178*	*44*	*20*

SAMPLE TREES - CF

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
DOUG FIR	53.0	4.2	209	218	227			
DOUG FIR-S								
WHEMLOCK	109.3	44.5	71	128	185			
WR CEDAR	19.8	13.7	73	84	96			
TOTAL	*60.3*	*4.5*	*194*	*203*	*212*	*145*	*36*	*16*

TREES/ACRE

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	94.7	15.4	48	57	65			
DOUG FIR-S	541.4	87.8	1	4	8			
WHEMLOCK	353.2	57.2	3	6	10			
WR CEDAR	352.1	57.1	1	1	2			
TOTAL	*88.9*	*14.4*	*59*	*69*	*79*	*316*	*79*	*35*

BASAL AREA/ACRE

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	40.3	6.5	158	169	180			
DOUG FIR-S	375.6	60.9	3	7	11			
WHEMLOCK	247.8	40.2	4	7	10			
WR CEDAR	346.1	56.1	1	3	5			
TOTAL	*37.1*	*6.0*	*174*	*185*	*196*	*55*	*14*	*6*

NET BF/ACRE

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
DOUG FIR	38.4	6.2	37,671	40,171	42,671			
DOUG FIR-S								
WHEMLOCK	256.0	41.5	688	1,176	1,664			
WR CEDAR	347.4	56.3	155	355	554			

TC PSTATS

PROJECT STATISTICS

PROJECT TWOMAC

DATE 8/11/2022

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
02N	06	22	00U1	00MC	187.00	38	177	S	W
02N	06W	22	00U2	00MC					

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	*36.5*	*5.9*	*39,238*	*41,702*	*44,167*	*53*	*13*	*6*

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
DOUG FIR	38.0	6.2	7,737	8,244	8,752			
DOUG FIR-S								
WHEMLOCK	252.5	40.9	147	248	350			
WR CEDAR	346.6	56.2	48	110	171			
TOTAL	*35.9*	*5.8*	*8,101*	*8,602*	*9,103*	*52*	*13*	*6*

TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T02N R06W S22 Ty00MC 104.00
T02N R06W S22 Ty00MC 83.00

Project: **TWOMAC**
Acres **187.00**

Page **1**
Date **8/11/2022**
Time **9:52:41AM**

Spp	S T	So Gr rt ad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent of Net Board Foot Volume: Log Scale Dia. 4-5	6-11	12-16	17+	Log Length 12-20	21-30	31-35	36-99	Average Log: Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		CU														16	10		0.00	8.1
DF		2M	83	1.1	33,801	33,426	6,251			28	72	1	1		99	40	17	496	2.40	67.4
DF		3M	14	.4	5,850	5,824	1,089		96	4			1	4	96	39	8	106	0.73	55.0
DF		4M	3		921	921	172		100			26	61	1	12	22	6	31	0.37	30.0
DF	**Totals**		96	1.0	40,572	40,171	7,512		16	24	60	1	2	1	96	35	12	250	1.46	160.5
RC		2M	53		188	188	35			100					100	40	13	240	1.84	.8
RC		3M	36		129	129	24		100						100	40	9	133	1.01	1.0
RC		4M	11		37	37	7		100				100			29	6	40	0.48	.9
RC	**Totals**		1		355	355	66		47	53			11		89	36	9	132	1.13	2.7
WH		CU														29	6		0.00	.8
WH		2M	63		749	749	140			22	78				100	40	19	632	2.95	1.2
WH		3M	20		229	229	43		100				36		64	35	7	69	0.51	3.3
WH		4M	17		199	199	37		100				36	64		30	7	50	0.43	4.0
WH	**Totals**		3		1,176	1,176	220		36	14	50		13	11	76	33	8	127	0.82	9.3
Totals				1.0	42,103	41,702	7,798		17	24	59	1	2	1	96	35	12	242	1.43	172.5

TC PSTNDSUM

Stand Table Summary

Page 1
Date: 8/11/2022

T02N R06W S22 Ty00MC 104.00
T02N R06W S22 Ty00MC 83.00

Project TWOMAC
Acres 187.00

Time: 9:52:43AM
Grown Year:

Spc	S T	DBH	Sample Trees	FF 16'	Tot Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log Net Cu.Ft.	Average Log Net Bd.Ft.	Net Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals Tons	Totals Cunits	Totals MBF
DF		10	3	70	61	5.656	3.08	3.85	12.2	60.0	1.33	47	231	249	88	43
DF		12	4	80	79	5.505	4.32	8.50	11.2	45.0	2.72	96	382	509	179	72
DF		13	3	86	101	3.620	3.34	7.24	14.6	60.0	3.02	106	434	564	198	81
DF		15	6	87	106	5.336	6.55	10.67	21.7	94.0	6.60	232	1,003	1,235	433	187
DF		17	1	86	86	.706	1.11	1.41	23.9	85.0	.96	34	120	180	63	22
DF		18	3	85	98	1.817	3.21	3.15	30.2	130.0	2.71	95	409	506	177	77
DF		19	4	90	134	2.196	4.32	6.59	29.5	128.9	5.53	194	849	1,034	363	159
DF		20	4	88	127	1.982	4.32	5.44	34.7	151.6	5.37	188	824	1,004	352	154
DF		21	4	87	131	1.797	4.32	4.93	38.8	167.2	5.46	191	824	1,020	358	154
DF		22	6	87	135	2.337	6.17	7.01	41.7	188.7	8.33	292	1,323	1,558	547	247
DF		23	8	87	134	3.040	8.77	9.12	44.4	196.8	11.55	405	1,795	2,159	758	336
DF		24	17	87	145	5.578	17.52	16.38	52.0	238.9	24.27	851	3,913	4,538	1,592	732
DF		25	11	89	133	3.368	11.48	9.56	53.7	248.6	14.62	513	2,377	2,735	959	444
DF		26	7	86	134	1.941	7.16	5.02	64.1	307.7	9.17	322	1,545	1,715	602	289
DF		27	3	88	143	.776	3.08	2.58	59.1	280.9	4.34	152	724	812	285	135
DF		28	10	88	154	2.454	10.49	7.88	70.4	355.5	15.81	555	2,802	2,957	1,037	524
DF		29	9	86	145	2.018	9.25	6.27	74.2	360.2	13.25	465	2,258	2,477	869	422
DF		30	11	87	162	2.313	11.35	8.20	75.5	387.5	17.64	619	3,176	3,298	1,157	594
DF		31	10	87	156	2.026	10.62	6.69	84.2	431.9	16.06	564	2,890	3,003	1,054	540
DF		32	3	87	164	.552	3.08	2.01	84.3	447.9	4.83	169	900	903	317	168
DF		33	8	86	163	1.435	8.52	5.01	92.1	476.0	13.16	462	2,385	2,461	863	446
DF		34	9	87	161	1.468	9.25	4.74	105.1	543.0	14.19	498	2,572	2,654	931	481
DF		35	7	87	163	1.071	7.16	3.38	99.2	540.7	9.55	335	1,827	1,786	627	342
DF		36	4	86	152	.594	4.20	1.92	113.7	607.5	6.22	218	1,167	1,164	408	218
DF		37	3	85	166	.430	3.21	1.44	123.6	646.5	5.07	178	930	948	333	174
DF		38	5	87	141	.690	5.44	2.12	117.1	643.3	7.07	248	1,363	1,322	464	255
DF		39	1	84	151	.119	.99	.36	141.0	740.0	1.43	50	264	268	94	49
DF		40	2	84	161	.226	1.97	.68	152.5	795.0	2.95	103	539	551	193	101
DF		44	1	88	158	.105	1.11	.32	194.3	1093.3	1.75	61	346	327	115	65
DF		Totals	167	85	123	61.155	175.42	152.44	54.1	263.5	234.96	8,244	40,171	43,937	15,417	7,512
WH		9	1	86	68	2.233	.99	2.23	9.9	40.0	.71	22	89	132	41	17
WH		10	1	89	68	1.808	.99	1.81	12.4	60.0	.72	23	109	135	42	20
WH		14	1	85	79	.923	.99	1.85	15.4	65.0	.91	28	120	170	53	22
WH		15	1	83	74	.804	.99	.80	21.3	90.0	.55	17	72	102	32	14
WH		27	1	93	140	.248	.99	.74	73.6	393.3	1.75	55	293	328	102	55
WH		31	1	88	140	.188	.99	.56	92.7	466.7	1.67	52	263	313	98	49
WH		34	1	81	142	.156	.99	.47	108.4	490.0	1.63	51	230	304	95	43
WH		Totals	7	87	77	6.360	6.90	8.47	29.3	138.9	7.94	248	1,176	1,485	464	220
RC		18	1	80	93	.558	.99	1.12	32.5	110.0	.85	36	123	159	68	23
RC		21	1	80	111	.410	.99	.82	47.5	155.0	.92	39	127	171	73	24
RC		22	1	81	87	.374	.99	.75	46.2	140.0	.81	35	105	152	65	20
RC		Totals	3	80	97	1.342	2.96	2.68	40.9	132.1	2.58	110	355	482	205	66
Totals			177	85	118	68.857	185.29	163.59	52.6	254.9	245.48	8,602	41,702	45,904	16,086	7,798

TC PLOGSTVB

Log Stock Table - MBF

T02N R06W S22 Ty00MC 104.00
T02N R06W S22 Ty00MC 83.00

Project: TWOMAC
Acres 187.00

Date 8/11/2022
Time 9:52:40AM

Spp	ST	Sort	Grade	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			2M	15	16		16	.2									16			
DF			2M	20	26		26	.3						6				20		
DF			2M	26	26		26	.3									26			
DF			2M	30	18		18	.2							18					
DF			2M	40	6,235	1.1	6,165	82.1						565	705	2193	1644	1022	36	
DF			3M	25	2		2	.0				2								
DF			3M	29	2		2	.0			2									
DF			3M	30	2		2	.0				2								
DF			3M	32	7		7	.1			7									
DF			3M	33	5		5	.1			5									
DF			3M	34	6		6	.1			3	3								
DF			3M	35	23		23	.3			23									
DF			3M	36	17		17	.2			10	7								
DF			3M	37	13		13	.2			13									
DF			3M	38	3		3	.0			3									
DF			3M	39	9		9	.1			9									
DF			3M	40	1,004		999	13.3			178	304	471	28	18					
DF			4M	12	3		3	.0			1	1								
DF			4M	13	4		4	.1			2	2								
DF			4M	14	1		1	.0			1									
DF			4M	15	4		4	.0			4									
DF			4M	16	12		12	.2			10	2								
DF			4M	17	8		8	.1			8	1								
DF			4M	18	10		10	.1			9	1								
DF			4M	20	3		3	.0			2	1								
DF			4M	21	9		9	.1			8	1								
DF			4M	22	8		8	.1			5	3								
DF			4M	23	18		18	.2			16	1								
DF			4M	24	27		27	.4			27									
DF			4M	25	7		7	.1			7									
DF			4M	26	5		5	.1			5									
DF			4M	27	6		6	.1			5	1								
DF			4M	28	4		4	.1			4									
DF			4M	29	8		8	.1			8									
DF			4M	30	12		12	.2			12									
DF			4M	31	2		2	.0			2									
DF			4M	36	20		20	.3			20									

TC PLOGSTVB

Log Stock Table - MBF

T02N R06W S22 Ty00MC	104.00
T02N R06W S22 Ty00MC	83.00

Project: TWOMAC
Acres 187.00

Page 2
Date 8/11/2022
Time 9:52:40AM

Spp	ST	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		Totals			7,587		7,512	96.3			412	333	471	598	741	2193	1686	1042	36	
RC		2M		40	35		35	53.1						35						
RC		3M		40	24		24	36.4			5		19							
RC		4M		29	7		7	10.5			7									
RC		Totals			66		66	.9			12		19	35						
WH		2M		40	140		140	63.7							17	28	96			
WH		3M		24	16		16	7.1					16							
WH		3M		36	2		2	1.0			2									
WH		3M		37	3		3	1.3			3									
WH		3M		39	20		20	9.2			20									
WH		3M		40	2		2	.9			2									
WH		4M		24	14		14	6.1					14							
WH		4M		31	24		24	10.7			24									
WH		Totals			220		220	2.8			51		29		17	28	96			
Total		All Species			7,873		7,798	100.0			475	333	519	633	758	2221	1781	1042	36	

Volume Summary
(Shown in MBF)
Two Mac
FG-341-2023-W00946-01
August 2022

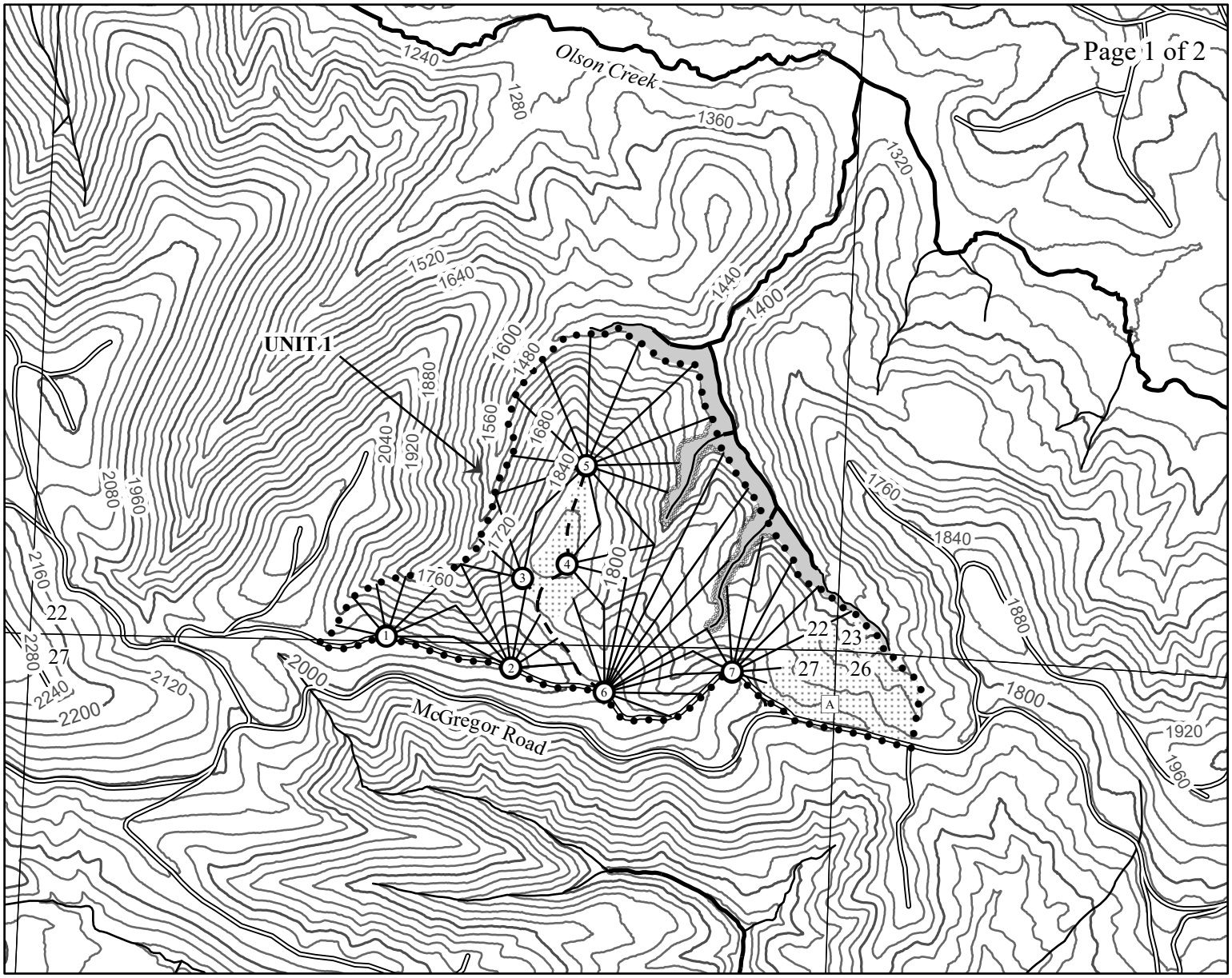
UNIT 1: MC (104 ACRES)

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	3,102	719	124	3,945
	Hidden D&B (2%)	(62)	(14)	(3)	(79)
	NET TOTAL	3,040	705	121	3,866
	% of Total	79	18	3	

UNIT 2: MC (83 ACRES)

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	3,149	370	49	3,568
	Hidden D&B (2%)	(63)	(7)	(1)	(71)
	NET TOTAL	3,086	363	48	3,497
	% of Total	88	11	1	
Western hemlock	Cruise Volume	140	43	37	220
	Hidden D&B (2%)	(2)	(1)	(1)	(4)
	NET TOTAL	138	42	36	216
	% of Total	0	0	0	

SALE TOTAL				
SPECIES	**2 SAW**	**3 SAW**	**4 SAW**	**TOTAL**
Douglas-fir	6,126	1,068	169	7,363
Western hemlock	138	42	36	216
TOTAL	6,264	1,110	205	7,579



Legend

- Timber Sale Boundary
- Stream Buffer Boundary
- Surfaced Road
- New Road Construction
- Type-F Stream
- Type-N Stream
- Stream Buffer
- Cable Yarding Area
- Tractor Yarding Area
- Cable Landing
- Tractor Landing
- Section Lines
- 40 Foot Contour Band
- 200 Foot Contour Band

LOGGING PLAN

FOR TIMBER SALE CONTRACT #FG-341-2023-W00946-01
TWO MAC
PORTIONS OF SECTIONS 22, 23, 24, 26, & 27, T4N, R6W, W.M.,
CLATSOP COUNTY, OREGON

Forest Grove District GIS
August, 2022
This product is for informational use and may not be suitable for legal, engineering, or surveying purposes.

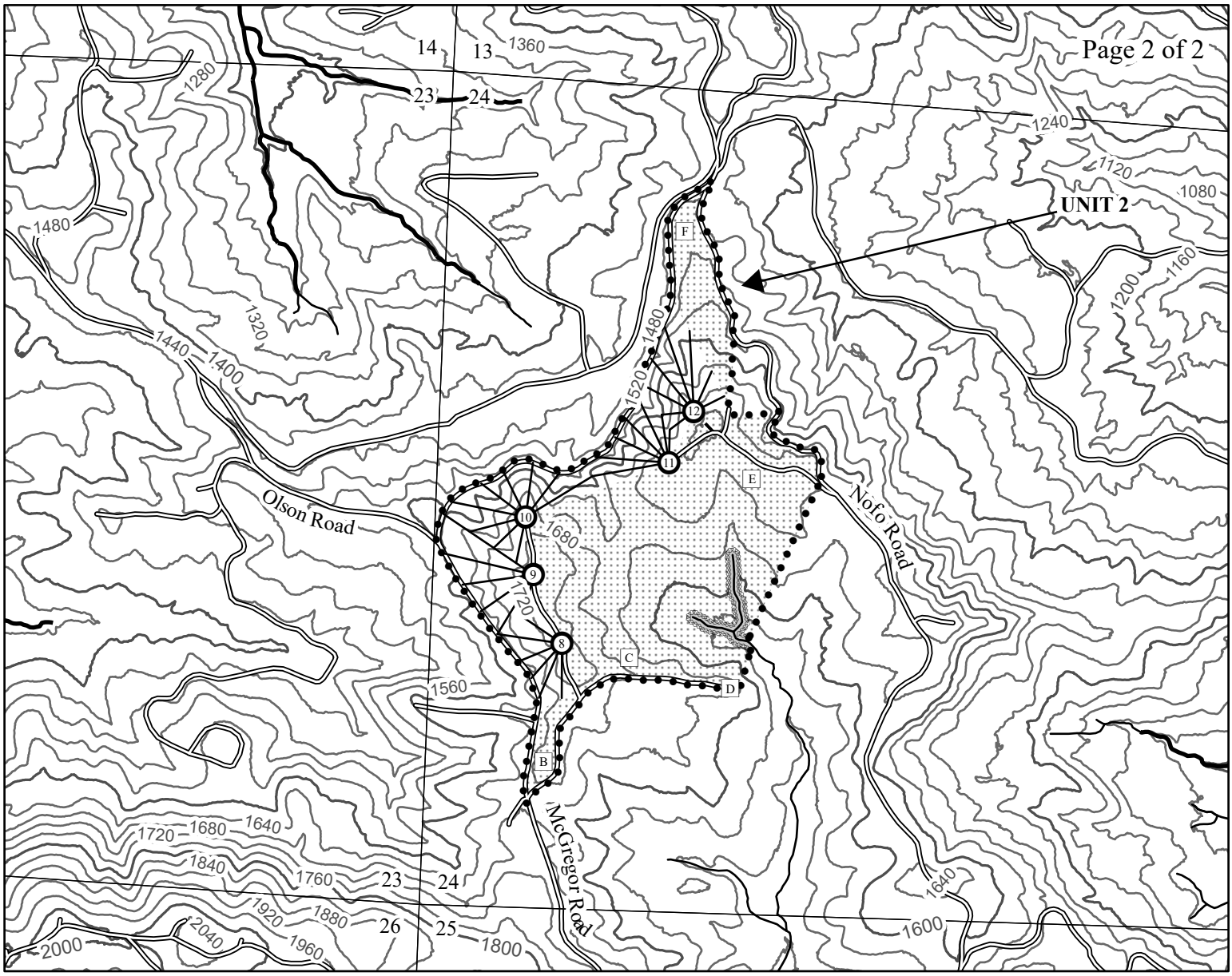
1:12,000

1 inch = 1,000 feet

0 500 1,000 2,000 Feet

APROXIMATE NET ACRES

	TRACTOR	CABLE
UNIT 1	16	88
UNIT 2	56	27
TOTAL	72	115



LOGGING PLAN

Legend

- Timber Sale Boundary
- Stream Buffer Boundary
- Surfaced Road
- New Road Construction
- Type-F Stream
- Type-N Stream
- Stream Buffer
- Cable Yarding Area
- Tractor Yarding Area
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FOR TIMBER SALE CONTRACT #FG-341-2023-W00946-01
TWO MAC
PORTIONS OF SECTIONS 22, 23, 24, 26, & 27, T4N, R6W, W.M.,
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1:12,000

1 inch = 1,000 feet

0 500 1,000 2,000
Feet

APROXIMATE NET ACRES

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