TIMBER SALE APPRAISAL

Siuslaw National Forest

Central Coast Ranger District

Sudan Thin DxP
(Sale Name)

16803
(SALE Number)

West Alsea EA
(EA/EIS/CE)

Sudan Thin DxP NARRATIVE

Description of Sale Area
This sale consists of 7 commercial thinning subdivisions totaling 286 acres and will be sold as a ton sale and scaled 100% weight. There is an estimated 33,639 tons (10,687ccf or 5,735mbf) in this sale.

General Location
This sale is approximately 8 miles southeast of Waldport, Oregon along Forest Service Roads 5300 and 5390 and is in the West Alsea watershed.

Routes of Access
Sale is appraised to Philomath, Oregon via Highways 34, Eckman County Road 712 and National Forest System roads 5300, 5390 and their tributaries.

Relation to Other Sales
Weist Thin is an adjacent sale.

Marking
Subdivision boundaries are flagged with yellow ribbon and tagged with blue boundary tags. Boundary trees are marked with orange tracer paint. All subdivisions are designation by prescription. Subdivisions 1, 2, and 6 include 1 acre gaps. Gap centers are identified by a leave tree with a pink tracer paint band at DBH and a mark on the stump.

Logging
This sale is appraised for 71% skyline yarding and 29% ground-based yarding. Ground-based yarding will not be allowed on slopes greater than 30%. Elevated tailholds and intermediate supports will be needed to meet yarding objectives. Some downhill yarding is required. Directional felling is required. Full suspension is required when yarding across streamcourses.

Roads and Other Developments
Approximately 2.67 miles of temporary roads and 57 landings are planned. Rock will be needed for temporary roads at the approach to all season system roads. 1,800 cubic yards of rock was appraised for temporary roads and 0 cubic yards of rock was appraised for landings.

Road Maintenance
Purchaser will be responsible for prehaul, routine, seasonal, and post haul maintenance on system roads except for portions of roads 5300 where a coop deposit of $0.00/Ton will be collected for road maintenance. 340 cubic yards of spot rock will be needed on system roads. Specific requirements to prevent the spread of invasive species are included in the road maintenance specifications.

Specified Road Reconstruction
There is specified reconstruction for Forest Service road 5300 with a total of 5.00 miles. The road completion date is 10/30/2017.

Erosion Control
Purchaser will be required to block temporary roads, install waterbars on landings, skid trails, and temporary roads, and seed landings, skid trails and temporary roads. A coop deposit of $.04/ton will be required for the cost of the seed that will be provided by the Forest Service.

Slash Disposal
Purchaser shall scatter or pile and cover landing slash where present. Purchaser shall treat logging slash in subdivisions 2, 5, and 6 within 25 feet of FS road 5300. Forest Service will burn piles. A slash disposal deposit of $0.49/Ton will be required.

Scaling
The sale will be scaled by 100% weight and paid for by the ton. Purchaser shall request an alternate scaling site and enter into a "Weighing Service Agreement". Any load for which no weight ticket is furnished shall be considered a lost sample load with a weight equal to the weight of the heaviest load presented during the billing period, as established by the Forest Service, C6.851.

Others
Haul restriction typically listed in C6.315# - Sale Operations Schedule, have been relocated to C5.12# - Use of Roads.
Corporations submitting an offer under this solicitation must include form AD-3030-FS *Representations Regarding Felony Conviction and Tax Delinquent Status for Corporate Applicants.*
Seasonal restrictions apply. See contract for details.
Equipment cleaning is required before entering the sale area.

USDA - FOREST SERVICE | REPORT OF TIMBER SALE | R6-FS-2400-17 (04/10)
Stewardship: N | APPRAISAL SUMMARY CCF | Version 1631 (TEA 06-16)

Region: 06	Sale Name: Sudan Thin DxP	Appraisal Date:	08/10/16
Forest: 12 Siuslaw	Sale Number: 16803	Base Period Ending:	06/30/16
District: 08 Central Coast	Appraise to: Philomath, Oregon	Competition Factor:	10%
Salvage: N	Appraiser: K. Wangerin	Essential KV Cost:	0

SELLING PRICES	1	2	3	4	5	6	7	Average	Total
1. Species	D-fir								
2. Species Code	205								
3. Product/Unit	01-03								
4. Volume	10,687								10,687
5. Base Period Price	67.06*							67.06	
6. Base Period Index	193.96							193.96	
7. Current Index	193.96							193.96	
8. Rapid Market Adj	5.20							5.20	
9. Market Adj BP Price	72.26							72.26	
10. Unusual Adjustment									
11. GBCv-Nonsaw Adj									
12. Product Quality Adj	7.20							7.20	
13. Adj Base Period Price	79.46							79.46	849,189.02

COSTS	Zone Avg Cost/UM	Est Sale Cost/UM	Adj to BP Cost
14. Stump to Truck	107.02	115.36	-8.34
15. Haul/Scale	37.58	46.67	-9.09
16. Road Maintenance	11.73	4.68	7.05
17. Contract	21.06	2.80	18.26
18. Development & Other	4.24	8.67	-4.43
19. Road Const & Recon		14.90	-14.90
20. Total (lines 14-19)	181.63	193.08	-11.45

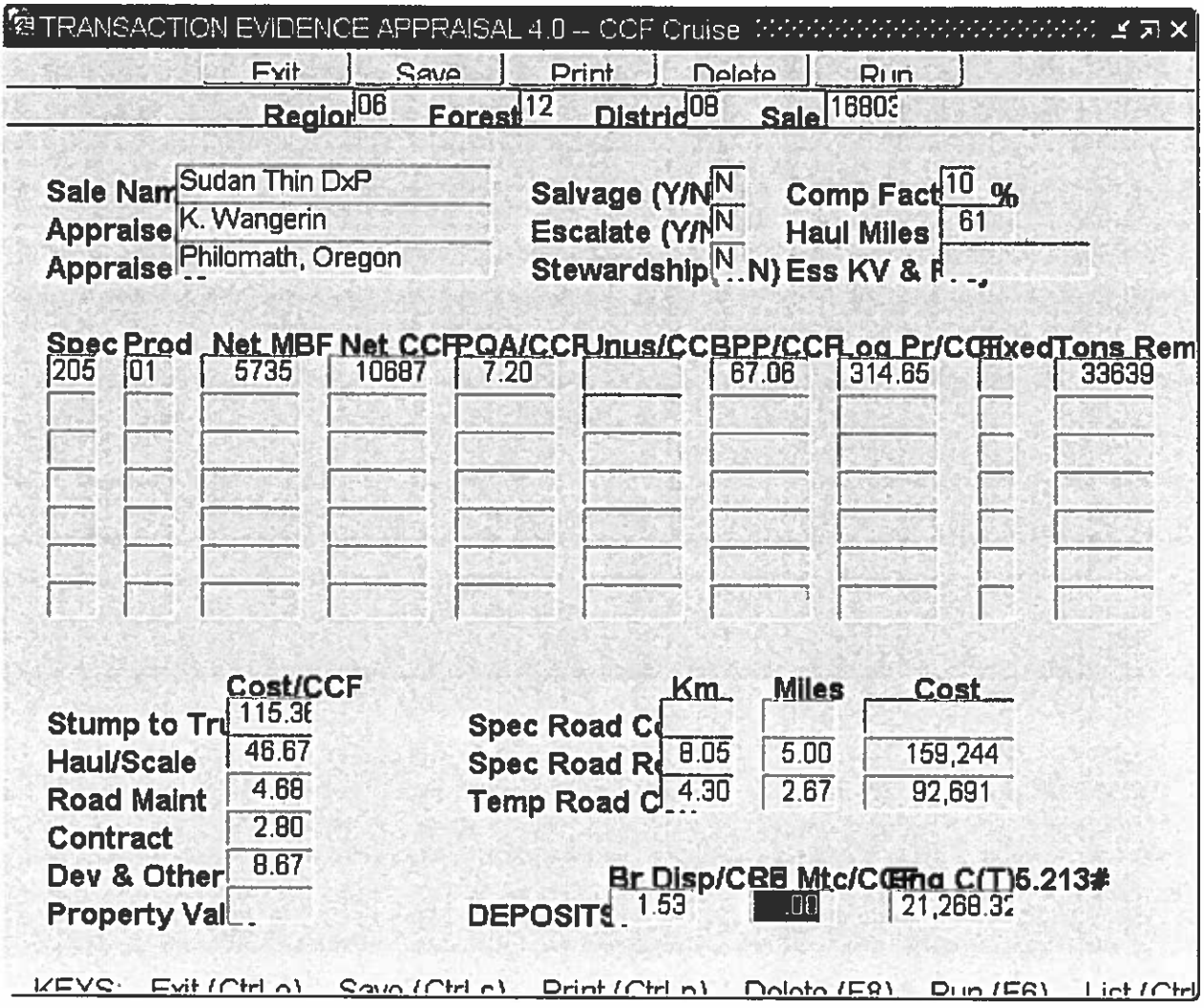
ROADS	Km	Miles	Cost
Specified Road Con			
Specified Road Rec	8.05	5.00	159,244
Temporary Road Con	4.30	2.67	92,691
Haul Miles		61	

	Br Disp/UM	Rd Mtc/UM	C(T)5.213#
DEPOSITS:	1.53		21,268.32

ADVERTISED RATES	1	2	3	4	5	6	7	Average	Total
21. Predicted Bid Rate	68.01							68.01	726,822.87
22. Competition Adjustment	6.80							6.80	72,671.60
23. Property Value									
24. Indicated Adv Rate	61.21							61.21	654,151.27
25. Base Rate	3.00							3.00	32,061.00
26. Adjustment									
27. Advertised Rate	61.21							61.21	654,151.27

CCF to MBF Rate Factors:	1.8635	1.8635	
CCF to MBF Volume Factors:	.5366	.5366	
MBF to CCF Index Factors:	.52		
CCF Base Index for A(T)5a:			
CCF Wtd Avg Del Log Price:	314.65		
MBF Volume:	5,735		5,735
Total Tons Removed:	33,639		33,639

Net CCF to Tons Conversion Factor for C8.3#(Option 1) or K-I.3.1#: 3.1477 DEPOSITS/Ton BD: .49 RM:


TRANSACTION EVIDENCE APPRAISAL 4.0 -- CCF Cruise
Exit
Save
Print
Delete
Run
Region 06 Forest 12 Distric 08 Sale 16803
Sale Nam Sudan Thin DxP
Appraise K. Wangerin
Appraise Philomath, Oregon
Salvage (Y/N N
Escalate (Y/N N
Stewardship N) N
Comp Fact 10 %
Haul Miles 61
Ess KV &
Spec Prod Net MBF Net CCF PQA/CCF Unus/CCB PP/CCF Log Pr/CCF Fixed Tons Rem
205 01 5735 10687 7.20 67.06 314.65 33639
Cost/CCF
Stump to Tr 115.3
Haul/Scale 46.67
Road Maint 4.68
Contract 2.80
Dev & Other 8.67
Property Val
Km Miles Cost
Spec Road C
Spec Road R 8.05 5.00 159,244
Temp Road C 4.30 2.67 92,691
Br Disp/CCF Mtc/CCF Eng C(T) 5.213#
DEPOSITS 1.53 .00 21,268.32
KEYS: Exit (Ctrl e) Save (Ctrl s) Print (Ctrl p) Delete (F8) Run (F6) List (Ctrl

PRODUCT QUALITY ADJUSTMENT - OREGON WESTSIDE

Use with Appraisal Update #6-16

Sale Name: Sudan Thin DxP Date: 28-Jul-16 (mm/dd/yy)

Species Group #1	Minimum Dia - dib	Representative Grade*	Log price $/mbf avg**	Volume MBF	Volume CCF	Log price $/ccf avg	Adjustment Dollars
205	5.0" - 7.99"	#4 sawmill	607.00	509	1,112	277.84	-71.35
	8.0"-11.99"	#3 sawmill	676.00	1,778	3,442	349.19	0.00
	12.0"-17.99"	#2 sawmill	682.00	1,027	1,747	400.92	51.73
	18.0" - 30.0"	special mill	696.00				

Chip Values, $/ccf

$/ton Avg	Avg lb per cf	Volume CCF
29.00		

BPP for chips = 0.00 /ccf
(insert as override on TEA input screen

Weighted average Product Quality Adjustment (PQA) for Species Group #1 = 1.75 /ccf *under BPP/CCF for products 08 and 20)*

Weighted average delivered log price for Species Group #1 = 350.95 /ccf (enter on TEA input screen as Log Pr/CCF)

Species Group #2	Minimum Dia - dib	Representative Grade*	Log price $/mbf avg**	Volume MBF	Volume CCF	Log price $/ccf avg	Adjustment Dollars
263,264,108	5.0" - 7.99"	#4 sawmill	440.00	223	489	200.65	-37.21
true firs	8.0"-11.99"	#3 sawmill	471.00	905	1,792	237.87	0.00
spruces	12.0"-17.99"	#2 sawmill	490.00	1,100	1,844	292.30	54.43
	18.0" - 24.0"	special mill	490.00	193	282	335.35	97.49

Weighted average Product Quality Adjustment (PQA) for Species Group #2 = 15.00 /ccf

Weighted average delivered log price for Species Group #2 = 262.75 /ccf (enter on TEA input screen as Log Pr/CCF)

Species Group #3	Minimum Dia - dib	Representative Grade*	Log price $/mbf avg**	Volume MBF	Volume CCF	Log price $/ccf avg	Adjustment Dollars
242	< 12.0"	#4 sawmill	camprun				
	12.0"-23.99"	#3 sawmill	925.00			481.00	0.00
	24.0"+	#2 sawmill	0.00				

Weighted average Product Quality Adjustment (PQA) for Species Group #3 = 0.00 /ccf

Weighted average delivered log price for Species Group #3 = 0.00 /ccf (enter on TEA input screen as Log Pr/CCF)

Species Group #4	Minimum Dia - dib	If this table is used, → entry needed here	Log price $/mbf avg	Volume MBF	Volume CCF	Log price $/ccf avg	Adjustment Dollars
						0.00	

Weighted average Product Quality Adjustment (PQA) for Species Group #4 = 0.00 /ccf

Weighted average delivered log price for Species Group #4 = 0.00 /ccf (enter on TEA input screen as Log Pr/CCF)

Species Group #5	Minimum Dia - dib	If this table is used, → entry needed here	Log price $/mbf avg	Volume MBF	Volume CCF	Log price $/ccf avg	Adjustment Dollars
						0.00	

Weighted average Product Quality Adjustment (PQA) for Species Group #5 = 0.00 /ccf

Weighted average delivered log price for Species Group #5 = 0.00 /ccf (enter on TEA input screen as Log Pr/CCF)

Species Group #6	Minimum Dia - dib	If this table is used, → entry needed here	Log price $/mbf avg	Volume MBF	Volume CCF	Log price $/ccf avg	Adjustment Dollars
						0.00	

Weighted average Product Quality Adjustment (PQA) for Species Group #6 = 0.00 /ccf

Weighted average delivered log price for Species Group #6 = 0.00 /ccf (enter on TEA input screen as Log Pr/CCF)

* Industry grade used to associate minimum dib and delivered log price. Volume comprises mostly the representative grade, but also may include material of other grades.

PRODUCT QUALITY ADJUSTMENT
Combining Species into Appraisal Groups
Determining Weighted Average Delivered Log Price for the Sale
Use with Appraisal Update #6-16

Sale Name: **Sudan Thin DxP** Date: **28-Jul-16**

Combining Species into Appraisal Groups (for entry into the TEA input screen)

	Type a "1" into desired cells to combine species into an appraisal group							
Geographic Area	Species Group #1	Species Group #2	Species Group #3	Species Group #4	Species Group #5	Species Group #6	Combined Prod Qual Adj	Combined Del Log Price
Ore West	1	1					7.20	314.65
Ore East								
Wash West								
Wash East								

Determining Weighted Average Delivered Log Price for the Sale (for use in analyzing advertised rates)

	Type a "1" into all cells with volume						
Geographic Area	Species Group #1	Species Group #2	Species Group #3	Species Group #4	Species Group #5	Species Group #6	Wt Avg Delivered Log Price for the Sale
Ore West	1	1					314.65
Ore East							
Wash West							
Wash East							

Enter the Combined Product Quality Adjustment on the TEA input screen under PQA/CCF for the main species in the appraisal group. Enter the Del Log Price under Log Pr/CCF on the TEA input screen for the main species in the appraisal group. Use the weighted average delivered log price for the sales to analyze advertised rates, per R6 FSH 2409.22 Appraisal Handbook. **Refer to the PQA User Guide for more information on the calculation and use of delivered log prices.**

***** Click the "Erase" button above to delete all species combination data *****
***** Press the "Delete" key in appropriate cell to erase individual cell input *****

Appraisal Reminder - When combining species, a weighted average Base Period Price needs to be calculated. Use the table below to calculate a weighted average BPP for the appraisal group.

The Erase Data button erases Forest number, Salvage, and Species Code and Species Volume (CCF) in the table.

Forest number = 12
Salvage?? = 1 (1=no, 2=yes)
Appraisal zone = 5

Species BPP Weighting Table

Species Code	Species Vol (CCF)	BPP from TEACOST.DAT
205	6,281.00	87.08
263	4,406.00	38.53
Total or Avg	10,687.00	67.06

MBF Volume Table

Species Code	Species Vol (MBF)
205	3,314.00
263	2,421.00
Total	5,735.00

Enter MBF volume from Species Group Tables for entry of Total into TEA Main Screen.

Appraisal Update #6-16

teacost.dat file (TEA 06-16)

The Appraisal Update # and teacost.dat file date **MUST BE THE SAME** in calculating a weighted average BPP!

Sale Name: Sudan Thin DxP

Date: 10-Aug-16

ANALYSIS OF ADVERTISED RATES

rev. April 2010

TEA Appraisal Summary Line No. & Title	DF						GBCv/ Nonsaw	Average/ Total
1. Species								
2. Species Code	205							
3. Product/Unit	01-03	01-03	01-03	01-03	01-03	01-03	08-03	
4. Volume	10,687							10,687
20. Total Est. Sale Cost/UM ($/CCF)								$193.08
24. Indicated Advertised Rate ($/CCF)								$61.21
25. Base Rates ($/CCF)								$3.00
27. Advertised Rate ($/CCF)								$61.21

Sale information from PQA:

Wt. Avg. Delivered Log Price from PQA:	314.65							
Combined **Sawtimber** Groups Weighted Average Delivered Log Price from PQA:								$314.65

A. Combined saw groups Weighted Average Delivered Log Price ($/CCF):			$314.65
B. Total Estimated Sale Cost/UM (Operational Costs):		-	$189.56
C. Weighted Average Advertised Rate for All Species ($/CCF):		-	$61.21
D. Deposits: C(T)5.213# Eng. Services - total $ 21,268.32	BD - $ 1.53 /CCF RD MTN - $ 0.00 /CCF	-	$3.52
E. RESULTS OF THE ANALYSIS OF ADVERTISED RATES:			$60.36

Due to local knowledge of markets and conditions no unusual adjustment was applied.

UNUSUAL ADJUSTMENT IS: $30.18 Advertised rates are too low. Make a positive (+) adj to all species & products.

Do the following prior to entering the Unusual Adjustment into the TEA input screen:

1. Examine the sale operational costs, including roads, to verify only work required to remove Included Timber is included, and is costed correctly.
2. Check all calculations, BD, EC, RD MTN, Haul, Logging, etc., make needed corrections, enter updated values into TEA input screen, rerun appraisal, and redo analysis of advertised rates. Include any Cost Share deposits ($/CCF) with RD MTN deposits when using this spreadsheet.
3. Enter Unusual Adjustment in TEA input screen and rerun the appraisal. These are the final advertised rates. DO NOT REDO THE ANALYSIS OF ADVERTISED RATES!!
4. Do not include in the timber sale contract, or appraisal, without supplemental funds from other resource areas, work activities such as;
   a. Building new road(s), or reconstructing existing road(s), to a higher standard needed to remove Included Timber.
   b. Replacing exisiting culvert that meets the 100 year flood standard with one that is better for fish.
   c. Re-paving/striping extended lengths of existing road surfaces when spot paving will facilitate the removal of Included Timber.

Sudan Thin DxP

16803

7/28/16

*All /ccf

Stump to Truck-$ 115.36

Haul/Scale-$ 46.67

Road Maintenance-$4.68 - $3.58 (Purchaser) +$1.10(Spot Rock) +$0.00(Co-Op Deposits))

Contract- $2.80 ($1.53 Deposit) + ($ 0.22 Purchaser) + ($ .91 Erosion) + ($0.14 co-op deposit)

Dev and Other-$8.67- $8.46 (Temporary Road Cost) + $0.21(Landing Cost)

Tons: 33,639

CCF: 10,687

MBF: 5,735

Logging Cost Summary - Estimated Stump To Truck Cost Results

Summary By Logging System and Sale

Logging System	Vol Type	Total Volume	Stump-truck $/vol	Estimated Seasons
Skyline	*ccf*	7,761	108.76	2
Mechanized				
Mech biomass				
Tractor	*ccf*	2,926	132.88	2
Shovel				
Helicopter				
Sale-as-a-whole		10,687	115.36 ←	*sawtimber basis*

ovhd=6.18/ccf or 11.89/mbf, p&r=2% of costs included (except helicopter)

Bio stump-truck $		**Estimated total number *operating* days for sale**	215
Include bio stump-truck in mech sys?		**Variable shutdown cost (all systems, if any) $/vol**	
		Include variable shutdown in system costs?	
Biomass haul cost			

Include Chipper?

Hours Used

Haul-$'s

Select helicopter alternative

Sale: **Sudan Thin DxP**

Date: **7/20/16**

LogCost ver 15.0

2/4/2015

Report summary table above in tons?

General Sale or Unit Input - *Skyline System*

LogCost ver 15.0

Sale Name: **Sudan Thin DxP**

Date: **7/20/2016** Fuel-$/gal: **$2.50**

Geo area: **OR** Vol type: **CCF**

Months in opr season: **6.0**

Sale or Unit #	Net unit CCF vol	Unit Acres	Total $ s Misc cost	Ave % slope To Inding	AYD Feet	Piece size net cf ft	Wood wt lbs/cf ft	Misc total $ s Explanation (text)	Include in summary
1	694	13.0	750	40.0%	300	18.2	63.9	Landing Costs	yes
2	1,267	39.0	1,500	45.0%	350	15.5	63.9	Landing Costs	yes
3	818	22.0	1,250	45.0%	300	13.1	60.9	Landing Costs	yes
4	149	4.0	500	45.0%	250	13.1	60.9	Landing Costs	yes
5	1,412	38.0	750	55.0%	450	13.1	60.9	Landing Costs	yes
6	3,048	82.0	2,000	45.0%	500	13.1	60.9	Landing Costs	yes
7	374	7.0	750	45.0%	350	18.2	63.9	Landing Costs	yes
Tot or avg	7,761	205.0	7,500	46.4%	415	14.2	61.8		

Misc Costs: Appraise $250 per landing located on Temporary Spurs. No dollar value assigned to Landings located on specified roads.
***

Production Estimate - Skyline System

Sale: Sudan Thin DxP
Date: 07/20/16

Optional prebunching input - harvester or feller-buncher input (select the bunching machine on "Equipment Selection" screen)

1	694	19	60.0	3,200	120.0	800	100	50.0	41.0	72.60	none
2	1,267	61	60.0	2,500	120.0	800	100	50.0	41.0	54.40	none
3	818	33	60.0	4,000	120.0	800	100	50.0	41.0	62.66	none
4	149	7	50.0	3,200	120.0	800	100	50.0	41.0	63.50	none
5	1,412	42	70.0	7,000	120.0	800	100	50.0	41.0	60.90	none
6	3,048	64	60.0	2,200	120.0	800	100	50.0	41.0	53.47	none
7	374	10	70.0	2,500	120.0	800	100	50.0	41.0	65.40	none
Tot or avg	7,761	48.5	62.1	3,434.9	120.0	800.0	100.0	50.0	41.0	56.42	

Equipment Use Summary - Skyline System

Estimated total cost per hour does not include labor

Sale: Sudan Thin DxP Date: 07/20/16

unit #	yarder	carriage	landing tractor	log loader	timber-bucker	feller-buncher	harvester	total $/hr
1	Loader-dual-winch-USED	Eagle eaglet-super	D6 (used)	Avg medium loader	Medium Processor			$300.33
2	Madill-171 - USED	Eagle eaglet-super	D6 (used)	Avg medium loader	Medium Processor			$331.17
3	Madill-171 - USED	Eagle eaglet-super	D6 (used)	Avg medium loader	Medium Processor			$331.17
4	Loader-dual-winch-USED	Eagle eaglet-super	D6 (used)	Avg medium loader	Medium Processor			$300.33
5	Madill-171 - USED	Eagle eaglet-super	D6 (used)	Avg medium loader	Medium Processor			$330.47
6	Madill-171 - USED	Eagle eaglet-super	D6 (used)	Avg medium loader	Medium Processor			$331.17
7	Madill-171 - USED	Eagle eaglet-super	D6 (used)	Avg medium loader	Medium Processor			$331.17

Labor Use Summary - Skyline System

Amount of each labor type shown in parenthesis

Sale: Sudan Thin DxP Date: 07/20/16

unit #	Labor A	Labor B	Labor C	Labor D	Labor E	Labor F	Labor G	Labor H	total $/hr
1	Choker setter (2)	Chaser (1)	Hook tender (1)	Rigging slinger (1)	Yarder engineer (1)	Loader opr (1)	Delimb/process opr (1)		$163.27
2	Choker setter (2)	Chaser (1)	Hook tender (1)	Rigging slinger (1)	Yarder engineer (1)	Loader opr (1)	Delimb/process opr (1)		$163.27
3	Choker setter (2)	Chaser (1)	Hook tender (1)	Rigging slinger (1)	Yarder engineer (1)	Loader opr (1)	Delimb/process opr (1)		$163.27
4	Choker setter (2)	Chaser (1)	Hook tender (1)	Rigging slinger (1)	Yarder engineer (1)	Loader opr (1)	Delimb/process opr (1)		$163.27
5	Choker setter (2)	Chaser (1)	Hook tender (1)	Rigging slinger (1)	Yarder engineer (1)	Loader opr (1)	Delimb/process opr (1)		$163.27
6	Choker setter (2)	Chaser (1)	Hook tender (1)	Rigging slinger (1)	Yarder engineer (1)	Loader opr (1)	Delimb/process opr (1)		$163.27
7	Choker setter (2)	Chaser (1)	Hook tender (1)	Rigging slinger (1)	Yarder engineer (1)	Loader opr (1)	Delimb/process opr (1)		$163.27

Moving - Skyline System

Date: 07/20/16

Sale: Sudan Thin DxP

net ccf vol	seasons to remove	seasons to use	first landing			additional lnds		last landing		
			move in (one way)		rig up	unrig, move, rig up		rig dwn	move out (one way)	
			tot miles	hours	hours	hrs/lnding	# lndings	hours	tot miles	hours
7,761	1	2	60.0	2.5	2.0	2.0	43.0	2.0	61.0	2.5

Days of variable shutdown/season

Miscellaneous Input - Skyline System

Sale: Sudan Thin DxP

Date: 07/20/16

=data not needed

Current f&b
26.88

sale or unit #	net ccf vol	choker selection	choker lbs ccf	tail hold anchor (stump or tail, not both)		tag SL length-ft	tag HB length-ft	tag guy line length-ft	$/ccf fall buck
				stump anchor selection	tail tree selection				
1	694	1/2" X 20'	500		1" - 1 IS				26.88
2	1,267	1/2" X 20'	500		1" - 1 IS				26.88
3	818	1/2" X 20'	500		1" - 1 IS				26.88
4	149	1/2" X 20'	500		1" - 1 IS				26.88
5	1,412	1/2" X 20'	500		1"				26.88
6	3,048	1/2" X 20'	500		1" - 1 IS				26.88
7	374	1/2" X 20'	500		1" - 1 IS				26.88
Totals	7,761		500			0	0	0	26.88

General Sale or Unit Input - *Tractor System*

LogCost ver 15.0

Sale Name: **Sudan Thin DxP**

Date: **07/20/16**
Fuel-$/gal: **$2.50**

Geo-area: **OR**
Vol type: **CCF**

Months in opr season: **4.0**

Sale or Unit #	Net unit CCF vol	Unit Acres	Total $'s Misc cost	Ave °slope To Inding	ASD Feet	Piece size net cf ft	Wood wt lbs/cf ft	Misc total $ s Explanation (text)	Include in summary
1	107	2.0		20.0%	100	14.6	63.9		yes
2	1,591	49.0	3,000	20.0%	300	12.4	63.9	Landing Costs	yes
3	112	3.0		20.0%	200	10.5	60.9		yes
5	260	7.0		20.0%	400	10.5	60.9		yes
6	483	13.0		20.0%	300	10.5	60.9		yes
7	374	7.0	250	20.0%	300	14.6	63.9	Landing Costs	yes
Tot or avg	2,926	81.0	3,250	20.0%	298	12.2	63.0		

Production Estimate - Tractor System

Sale: Sudan Thin DxP

Date: 07/20/16

Unit number	Net CCF volume	log transport machine type	# transport machines	avg pieces per turn	% delay per hour	add time minutes	grapple on skidder?	Average skid trail spacing	Winching required?	Est net cy/day-CCF
1	107	tracked skidder	1	3.0	15.0%		no	100	no	61.07
2	1,591	tracked skidder	1	3.0	15.0%		no	100	no	35.60
3	112	tracked skidder	1	3.0	15.0%		no	100	no	36.25
5	260	tracked skidder	1	3.0	15.0%		no	100	no	26.58
6	483	tracked skidder	1	3.0	15.0%		no	100	no	30.67
7	374	tracked skidder	1	3.0	15.0%		no	100	no	41.91
Tot or avg	2,926		1.0	3.0	15.0%	0.0		100.0		35.75

Equipment Use Summary - Tractor System

Estimated total cost per hour does not include labor

Sale: Sudan Thin DxP Date: 07/20/16

unit #	skidder	log loader	limber bucker					total $/hr
1	Avg small track skidder	Avg medium loader	Medium Processor					$245.51
2	Avg small track skidder	Avg medium loader	Medium Processor					$245.51
3	Avg small track skidder	Avg medium loader	Medium Processor					$245.51
5	Avg small track skidder	Avg medium loader	Medium Processor					$245.51
6	Avg small track skidder	Avg medium loader	Medium Processor					$245.51
7	Avg small track skidder	Avg medium loader	Medium Processor					$245.51

Labor Use Summary - Tractor System

Amount of each labor type shown in parenthesis

Sale: Sudan Thin DxP Date: 07/20/16

unit #	Labor A	Labor B	Labor C	Labor D	Labor E	Labor F	Labor G	Labor H	total $/hr
1	Choker setter (1)	Logging cat opr (1)	Chaser (1)	Loader opr (1)	Delimb/process opr (1)				$103.96
2	Choker setter (1)	Logging cat opr (1)	Chaser (1)	Loader opr (1)	Delimb/process opr (1)				$103.96
3	Choker setter (1)	Logging cat opr (1)	Chaser (1)	Loader opr (1)	Delimb/process opr (1)				$103.96
5	Choker setter (1)	Logging cat opr (1)	Chaser (1)	Loader opr (1)	Delimb/process opr (1)				$103.96
6	Choker setter (1)	Logging cat opr (1)	Chaser (1)	Loader opr (1)	Delimb/process opr (1)				$103.96
7	Choker setter (1)	Logging cat opr (1)	Chaser (1)	Loader opr (1)	Delimb/process opr (1)				$103.96

Miscellaneous Input - Tractor System

Sale: Sudan Thin DxP
Date: 07/20/16

sale or unit #	net ccf volume	$/ccf fall/buck	$/ccf additional	explanation of additional $/ccf
1	107	26.88		
2	1,591	26.88		
3	112	26.88		
5	260	26.88		
6	483	26.88	79.82	Tractor swing yarding system from Landing "C" to Landing"D"
7	374	26.88		
Tot or avg	2,926	26.88	13.18	

FALLING & BUCKING APPRAISAL - APPRAISAL SUMMARY

LogCost ver 15.0

Sale name: **Sudan Thin DxP**

Geographic area: **OR**
Volume type: **CCF**

Date: **20-Jul-16**

Production estimates...

Avg one-way walk-in, hrs	Net ccf per acre	Production net ccf/hr	Production net ccf/day	Avg trees F&B/hour
0.20	37.4	1.39	10.56	4.2

Calculated costs estimates in $/CCF...

Deprec $/CCF	Operating Cost Components - $/CCF					Moving $/CCF	Other cost $/CCF	Total F & B $/CCF
	m & r	fuel	lube	labor	total opr			
$0.33	$0.33	$1.13	$0.91	$20.77	$23.14	$3.41		**$26.88**

f&b time = 12 minutes

FALLING & BUCKING APPRAISAL - DATA INPUT TABLE

LogCost ver 15.0

Sale name	Vol type *select*	Geographic area - *select*	Date
Sudan Thin DxP	**CCF**	**OR**	**20-Jul-16**

Average one-way walk-in time, hrs	Net ccf per acre	Avg gross cf per tree	Percent net recovery	Avg time per tree	Fuel cost $/gallon
0.20	**37.4**	**34.8**	**94.0%**	**12**	**$2.90**

COST DEFAULTS TABLE

Labor rate Fall-buck	Delay time Min/hr	Avg. hours Per day	Move cost In/out	Production Net ccf/hr	Production Net ccf/day	Total Cost/day
$27.43	**9.0**	**8.0**	**$36.00**	1.39	10.56	$283.84

Defaults used in above table

labor rate (region = OR)	$27.43	$/hr
delay time minute/hr	9.0	min/hr
hours worked/day	8.0	hrs/day
move in/out	$36.00	$/day

TRUCKING APPRAISAL - APPRAISAL SUMMARY

HaulCost ver 15.0

Sale name: **Sudan Thin DxP** Geo. area: ***OR*** Date: **21-Jul-16**

Cost type	Average trip rtm's	CCF per load	Tot rtm's per day	Total OT rtm's	CCF vol per day	Gross cost per day	Net cost per day	Net cost per ccf	Net $/ccf w/inflation
w/o scale									
with scale	336.5	8.0	582.0	102.0	13.84	589.93	620.98	44.88	46.67

<<Scaling cost is included in the total haul cost below>>

years inflation = 1.0

252 minutes

Include scale cost in final haul cost
Yes

Total haul cost, $/ccf = **$46.67**

Volume Type...
CCF

Sale or Haul Narrative

Scale total cost: **$59.22**

HaulCost 15.0 - TRUCKING APPRAISAL - DATA INPUT

February 5, 2015 - Microsoft Excel 2007 & 2010

Sale name	Volume type	Geographic area	Date
Sudan Thin DxP	**CCF**	**OR**	**21-Jul-16**

Sale RTM's <traveling> <only>	Avg volume per load	Is scaling done?	Inflate costs?	Fuel cost per gallon	One-way trip mileage
251.5	**8.00**	**Yes**	**Yes**	**$2.50**	**61.0**

Select truck or Truck-trailer combo	Select trailer	Select attached loader
Truck-trailer (standard stinger-steer, west US)		

<<Do not make trailer selection>> **<<Do not make loader selection>>**

EROSION CONTROL PLAN AND APPRAISAL

Forest: **Siuslaw** District: **Central Coast** Sale Name: **Sudan Thin DxP**

CCF Volume: 10,687 miles of temp.road: 2.67

Work will be done by purchaser.

WORK ITEM		Unit of Measure	Number of Units	Cost per Unit ($)	Total ($)
(1)	PERMANENT ROAD STABILIZATION				
	a. Seed				
(2)	TEMP. ROADS (put to bed)				
	a. Remove culverts/bridges				
	b. Outsloping				
	c. Cross ditching	each	141	$10.00	$1,410.00
	e. Barriers	each	11	$150.00	$1,650.00
	f. Seed	acres	2.6	$425.60	$1,106.57
(3)	SKIDROADS & TRAILS				
	a. Remove culverts/bridges				
	b. Waterbars & cross drains	each	6	$10.00	$60.00
	c. Brush dams				
	d. Seed	acres	2	$425.60	$851.21
(4)	FIRELINE STABILZATION				
	a. waterbars & cross drains	each	0		
	b. Seed	acres	0		
(5)	LANDING				
	a. Drainage ditches	each	114	$10.00	$1,140.00
	c. Cut & fill stabilization				
	d. Seed	acres	1.1	$425.60	$468.16
(6)	DISTURBED MEADOWS				
	a. Land treatment				
	b. Seed				
(8)	MAINTAIN EROSION STRUCTURES				
(9)	OTHER (specify)				
	a. Scarify Temp roads, Landings, Skid Trails	Total			$3,000.00
	b.				
	c.				
(10)	TOTAL COSTS				$9,685.94
(11)	Cost per CCF for Appraisal				$0.91

rev. 6/2009

EROSION CONTROL WORKSHEET

Sale Name: **Sudan Thin DxP**

Seeding

Acres that will need treating are as follows:

A. Temporary Roads in the sale will be treated, total is about [14,098] feet in length,
or about 5.2 acres of Temporary Roads of which about half will be seeded
or about 2.6 acres. Road width is based on 16 feet.

B. Ground-based area in the sale totals [81] acres, ground-based area covered by skid roads is
about 10% or 8.1 acres of which a quarter will be seeded or about 2.0 acres.

C. Fireline stabilization - about [ ] feet of fireline with an average width of
0 feet or about 0.0 acres will be seeded.

D. Landings - total number of landings - average of 0.1 acres each [57] for a total of
about 5.7 acres of which 20% will be seeded or about 1.1 acres.

Erosion Control Structures

Cost is $10.00 per cross drain x 261 crossdrains = $2,610.00

Landings:	114
Firelines:	0
Skid Roads & Trails:	6
Temporary Roads:	141
Total:	261

Appraised one crossdrain per 100 feet of distrubance. Appraised two crossdrains per native surface landing. Estimated approximately 300 feet of skid trails per acre.

Temporary Road Barriers

[11] Barriers X $150.00 /barrier = $1,650.00
(one barrier per road)

SEED COST WORKSHEET

Sale Name: **Sudan Thin DxP**

Volume: 10,687 CCF
33,639 Tons

Oprerator Costs

Labor	$122.67 /ac	($23/hr x 8 hr / 1.5 ac/day)
Vehicle	$16.00 /ac	(1/2 T PU @$8/hr x 3 hr / 1.5 ac/day)
Total	$138.67 /acre	

	$138.67 /ac	
x	1.213 OH	
subtotal	$168.20 /ac	

FS (Co-op) Costs

Seed	$9.00 /lb.	
Application Rate	22 lb/ac	
Total	$198.00 /acre	

	$198.00 /ac	
x	1.3 OH	
subtotal	$257.40 /ac	
x	5.7 acres	
total coop	$1,467.18	

CO-OP Costs: **$0.14 /CCF**
$0.04 /Tons

	$168.20 /ac
+	$257.40 /ac
Total per acre cost:	**$425.60 /ac**