



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
Kan Sam
Sale 341-13-57

District: Tillamook

Date: August 07, 2012

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$33,605.47	\$168,820.50	\$202,425.97
		Project Work:	\$(27,300.00)
		Advertised Value:	\$175,125.97



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal Kan Sam Sale 341-13-57

District: Tillamook

Date: August 07, 2012

timber description

Location: Portions of Sections 14 and 15, T1S R8W, W. M., Tillamook County, Oregon.

Stand Stocking: 40%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	22	0	95
Western Hemlock / Fir	20	0	95
Sitka Spruce	16	0	95
Alder (Red)	14	0	90

Volume by Grade	10" - 11"	12"+	2S	3S	4S	6" - 7"	8" - 9"	Total
Douglas - Fir	0	0	13	13	3	0	0	29
Western Hemlock / Fir	0	0	26	16	3	0	0	45
Sitka Spruce	0	0	78	58	19	0	0	155
Alder (Red)	152	200	0	0	0	251	120	723
Total	152	200	117	87	25	251	120	952



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comments: Pond Values Used: 2nd Quarter Calendar Year 2012.

Western redcedar and Other Cedars Stumpage Price = Pond Value
minus Logging Costs
 $\$650/\text{MBF} = \$950/\text{MBF} - \$300/\text{MBF}$

Pulp (Conifer and Hardwood) Price = $\$25/\text{MBF}$

SCALING COST ALLOWANCE = $\$5.00/\text{MBF}$

FUEL COST ALLOWANCE = $\$4.00/\text{Gallon}$

HAULING COST ALLOWANCE
Hauling cost equivalent to $\$780$ daily truck cost.

Other Costs (with Profit & Risk to be added):
Brand and Paint: $\$2/\text{MBF} \times 952 \text{ MBF} = \$1,904$
TOTAL Other Costs (with Profit & Risk to be added) = $\$1,904$

Other Costs (No Profit & Risk added):
Non-project road: $880' \times \$75/100' = \660
Truck Assist from Landing D: $(7 \text{ acres} \times 14 \text{ MBF/acre}) \times \$25/\text{MBF} = \$2,450$
Guyline development for landing at Point D: $\$1,000$
Walk tracked equipment within Area 1: $2 \text{ pieces} \times 3.8 \text{ miles} \times \$45/\text{mile} = \$342$
Slash Piling and Sorting: $\$5/\text{acre} \times 66 \text{ (cable) acres} = \330
Cover material for piles: $5 \text{ piles} \times \$5/\text{pile} = \25
Equipment Cleaning: $1 \text{ machine} @ \$1,000 \text{ per machine} = \$1,000$
TOTAL Other Costs (No Profit & Risk added) = $\$5,807$

ROAD MAINTENANCE
Road Maintenance: Sampson Ridge Road and Trask Cut Off:
Spot rocking: $60\text{cy} \times \$15.00/\text{cy}/952 \text{ MBF} = \$0.95/\text{MBF}$
Interim Grading: $\$250/\text{mile} \times 2.4 \text{ miles} \times 1 \text{ times} / 952 \text{ MBF} = \$0.63/\text{MBF}$
Final maintenance grading: $\$500/\text{mile} \times 2.4 \text{ miles} / 952 \text{ MBF} = \$1.26/\text{MBF}$

Road Maintenance Kansas Creek Road (including County Road to paved bridge apron):
Final maintenance grading: $\$500/\text{mile} \times 1.6 \text{ miles} / 952 \text{ MBF} = \0.84

Total Road Maintenance: $\$ 3.68/ \text{MBF}$



"STEWARDSHIP IN FORESTRY"

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District: Tillamook

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logging conditions

combination#: 1 Douglas - Fir 95.00%

yarding distance: Medium (800 ft) downhill yarding: No
logging system: Cable: Medium Tower >40 - <70 Process: Stroke Delimber
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 4.6 bd. ft / load: 3,500
cost / mbf: \$207.71

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Medium)

combination#: 2 Western Hemlock / Fir 95.00%
 Sitka Spruce 95.00%

yarding distance: Medium (800 ft) downhill yarding: No
logging system: Cable: Medium Tower >40 - <70 Process: Stroke Delimber
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 5.8 bd. ft / load: 3,500
cost / mbf: \$164.73

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Medium)

combination#: 3 Alder (Red) 95.00%
yarding distance: Medium (800 ft) downhill yarding: No
logging system: Cable: Medium Tower >40 - <70 Process: Stroke Delimber
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 4.1 bd. ft / load: 3,500
cost / mbf: \$233.04

machines: Log Loader (A)
Stroke Delimber (A)
Tower Yarder (Medium)

combination#: 4 Douglas - Fir 5.00%
 Western Hemlock / Fir 5.00%
 Sitka Spruce 5.00%
 Alder (Red) 5.00%



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
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Sale 341-13-57

District: Tillamook

Date: August 07, 2012

yarding distance:	Short (400 ft)	downhill yarding:	No
logging system:	Track Skidder	Process:	Manual Delimbing
tree size:	Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF		
loads / day:	6.0	bd. ft / load:	3,000
cost / mbf:	\$77.69		
machines:	Feller Buncher w/ Delimber		



"STEWARDSHIP IN FORESTRY"

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Sale 341-13-57

District: Tillamook

Date: August 07, 2012

logging costs

Operating Seasons:	1.00	Profit Risk:	15.00%
Project Costs:	\$27,300.00	Other Costs (P/R):	\$1,904.00
Slash Disposal:	\$0.00	Other Costs:	\$5,807.00

Miles of Road

Road Maintenance: \$3.68

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	4.0
Western Hemlock / Fir	\$0.00	3.0	4.0
Sitka Spruce	\$0.00	3.0	3.7
Alder (Red)	\$0.00	3.0	3.5



"STEWARDSHIP IN FORESTRY"

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logging costs breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$201.21	\$3.86	\$4.61	\$59.35	\$2.00	\$40.65	\$0.00	\$5.00	\$6.10	\$322.78
Western Hemlock / Fir									
\$160.38	\$3.86	\$4.61	\$59.35	\$2.00	\$34.53	\$0.00	\$5.00	\$6.10	\$275.83
Sitka Spruce									
\$160.38	\$3.86	\$4.61	\$64.16	\$2.00	\$35.25	\$0.00	\$5.00	\$6.10	\$281.36
Alder (Red)									
\$225.27	\$4.05	\$4.61	\$71.06	\$2.00	\$46.05	\$0.00	\$5.00	\$6.10	\$364.14

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$527.41	\$204.63	\$0.00
Western Hemlock / Fir	\$0.00	\$458.33	\$182.50	\$0.00
Sitka Spruce	\$0.00	\$406.90	\$125.54	\$0.00
Alder (Red)	\$0.00	\$597.64	\$233.50	\$0.00



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summary

Amortized

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

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	29	\$204.63	\$5,934.27
Western Hemlock / Fir	45	\$182.50	\$8,212.50
Sitka Spruce	155	\$125.54	\$19,458.70
Alder (Red)	723	\$233.50	\$168,820.50

Gross Timber Sale Value

Recovery: \$202,425.97

Prepared by: David Wells

Phone: 503-842-2545



"STEWARDSHIP IN FORESTRY"

Kan Sam

Volume Summary

Area 1-Modified Clearcut				
69 acres				
SPECIES	Cruised Net	Cruised Net	Hidden	Net Sale
	MBF/ Acre	MBF	D&B	MBF
Douglas-fir	0.4	31	5%	29
Hemlock	0.7	47	5%	45
Spruce	2.4	164	5%	155
Alder	11.6	803	10%	723
TOTAL	15.1	1045		952

TOTAL SALE VOLUME			69	acres
SPECIES	Cruised Net (MBF)		Net Sale (MBF)	
Douglas-fir	31		29	
Hemlock	47		45	
Spruce	164		155	
Red Alder	803		723	
TOTAL	1045		952	

TC TLOGSTVB				Log Stock Table - MBF															
				Project: SAMS N															
T01S R08W S14 TSALE												T01S R08W S14 TSALE							
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	1										
01S	08W	14	AREA 1	SALE	69.00	11	92	Date	5/16/2012										
									Time	9:37:26AM									
S Spp	So rt	Gr de	Log Len	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches											
				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+
RA	H	2	12	6	10.0	5	.8								5				
RA	H	2	14	14	10.0	13	1.7							6	7				
RA	H	2	16	17	10.0	15	2.1							7	8				
RA	H	2	32	144	10.0	130	17.9					62		32	36				
RA	H	2	40	37	10.0	33	4.6					33							
RA	H	3	24	15	10.0	14	1.9			6		8							
RA	H	3	26	13	10.0	12	1.6			12									
RA	H	3	28	10	10.0	9	1.2			5			4						
RA	H	3	30	17	10.0	16	2.1			8		8							
RA	H	3	32	244	10.0	219	30.4			83		136							
RA	H	3	38	11	10.0	10	1.4			10									
RA	H	3	40	79	10.0	71	9.9			65	6								
RA	H	4	12	10	10.0	9	1.3			9									
RA	H	4	13	3	10.0	3	.4			3									
RA	H	4	14	8	10.0	7	.9			7									
RA	H	4	15	6	10.0	6	.8			6									
RA	H	4	16	6	10.0	6	.8			6									
RA	H	4	17	4	10.0	3	.5			3									
RA	H	4	18	7	10.0	6	.9			6									
RA	H	4	19	5	10.0	5	.7			5									
RA	H	4	20	4	10.0	4	.5			4									
RA	H	4	21	7	10.0	6	.8			6									
RA	H	4	22	4	10.0	3	.5			3									
RA	H	4	23	3	10.0	3	.4			3									
RA	H	4	24	2	10.0	2	.2			2									
RA	H	4	25	1	10.0	1	.2			1									
RA	H	4	27	17	10.0	15	2.1			15									
RA	H	4	28	6	10.0	5	.7			5									
RA	H	4	29	16	10.0	15	2.0			15									
RA	H	4	30	12	10.0	11	1.5			11									
RA	H	4	31	3	10.0	3	.4			3									
RA	H	4	32	9	10.0	8	1.2			8									
RA	H	4	33	4	10.0	3	.4			3									
RA	H	4	34	8	10.0	8	1.1			8									
RA	H	4	35	15	10.0	13	1.8			13									
RA	H	4	36	18	10.0	16	2.3			16									
RA	H	4	37	5	10.0	5	.7			5									
RA	H	4	40	11	10.0	10	1.4			10									
RA	Totals			803	10.0	723	70.4			251	120	152	99	44	57				
SS	CO	2	16	21	5.0	20	12.8								9	11			
SS	CO	2	32	13	5.0	12	7.7							12					
SS	CO	2	34	48	5.0	46	29.3							15	30				
SS	CO	3	26	5	5.0	5	3.0				5								
SS	CO	3	32	48	5.0	46	29.4			14	5	11	15						
SS	CO	3	34	7	5.0	7	4.4			7									
SS	CO	4	12	1	5.0	1	.3		1										
SS	CO	4	13	1	5.0	1	.8		1										
SS	CO	4	14	0	5.0	0	.3		0										
SS	CO	4	15	1	5.0	1	.7		1										
SS	CO	4	19	10	5.0	9	6.1		9										

TC TLOGSTVB				Log Stock Table - MBF																							
				Project: SAMSN																							
T01S R08W S14 TSALE														T01S R08W S14 TSALE													
Twp		Rge		Sec		Tract		Type		Acres		Plots		Sample Trees				Page		2							
01S		08W		14		AREA 1		SALE		69.00		11		92				Date		5/16/2012							
																Time		9:37:26AM									
S Spp	So	Gr	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+							
SS	CO	4	20		1	5.0	0	.3		0																	
SS	CO	4	23		1	5.0	1	.4		1																	
SS	CO	4	26		3	5.0	3	2.1		3																	
SS	CO	4	29		4	5.0	4	2.5		4																	
SS Totals					164	5.0	155	15.1		21		21	10	11	43	30	9	11									
OC	CO	2	26		10		10	16.9									10										
OC	CO	2	32		14		14	25.2									14										
OC	CO	3	32		12		12	21.9					3				9										
OC	CO	4	13		0		0	.4		0																	
OC	CO	4	16		0		0	.6		0																	
OC	CO	4	23		0		0	.8		0																	
OC	H	2	34		15		15	26.4										15									
OC	H	3	34		4		4	7.4							4												
OC	H	4	16		0		0	.6			0																
OC Totals					56		56	5.5		1		0		3	4		33	15									
WH	CO	2	32		13	5.0	12	27.7								12											
WH	CO	2	40		14	5.0	14	30.9							14												
WH	CO	3	32		4	5.0	4	9.0					4														
WH	CO	3	40		13	5.0	12	27.9			2	10															
WH	CO	4	13		0	5.0	0	.7		0																	
WH	CO	4	23		2	5.0	2	3.8		2																	
WH Totals					47	5.0	45	4.3		2		2	10	4		14	12										
DF	CO	2	36		14	5.0	13	45.3							13												
DF	CO	3	36		4	5.0	4	14.1				4															
DF	CO	3	40		10	5.0	9	32.4					9														
DF	CO	4	18		1	5.0	1	2.8		1																	
DF	CO	4	24		2	5.0	2	5.4		2																	
DF Totals					31	5.0	29	2.8		2		4	9		13												
WL	CO	2	24		13		13	70.7										13									
WL	CO	2	32		5		5	27.6								5											
WL	CO	4	19		0		0	1.7		0																	
WL Totals					18		18	1.8		0						5		13									
Total All Species					1,119	8.3	1,027	100.0		27		254	155	175	113	118	104	42	39								

TC		Stand Table Summary														
Project SAMS N																
T01S R08W S14 TSALE												T01S R08W S14 TSALE				
Twp	Rge	Sec	Tract	Type			Acres	Plots	Sample Trees			Page:	1			
01S	08W	14	AREA 1	SALE			69.00	11	92			Date:	05/16/2011			
												Time:	9:39:32AM			
S Spc	T	Sample		FF	Av Ht	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	T o t a l s		
		DBH	Trees	16'	Tot				Net Cu.Ft.	Bd.Ft.				Tons	Cunits	MBF
RA		8	1	77	21	5.622	1.82	5.62	2.8	10.0	.43	16	56	30	11	4
RA		9	4	78	56	16.782	7.27	16.78	8.8	36.8	4.06	148	617	280	102	43
RA		10	4	79	68	13.151	7.27	13.15	12.6	47.4	4.55	166	624	314	114	43
RA		11	4	80	80	11.078	7.27	11.08	17.5	60.0	5.33	194	665	368	134	46
RA		12	2	79	82	4.956	3.64	7.39	13.5	46.7	2.74	99	345	189	69	24
RA		13	8	79	74	15.923	14.55	27.93	13.3	42.4	10.23	372	1,183	706	257	82
RA		14	4	81	59	6.836	7.27	10.29	16.1	43.2	4.55	166	445	314	114	31
RA		15	10	81	64	14.853	18.18	25.18	18.3	59.4	12.64	460	1,495	872	317	103
RA		16	6	84	75	7.785	10.91	14.22	21.5	81.0	8.39	305	1,151	579	211	79
RA		17	6	84	63	6.914	10.91	12.73	21.7	75.5	7.60	277	960	525	191	66
RA		18	5	85	79	5.227	9.09	10.45	26.6	97.9	7.65	278	1,023	528	192	71
RA		19	3	84	74	2.821	5.45	6.62	23.3	88.8	4.24	154	588	293	106	41
RA		20	2	86	72	1.710	3.64	3.42	31.1	110.0	2.92	106	376	202	73	26
RA		21	3	81	79	2.247	5.45	4.49	35.7	121.7	4.41	160	547	305	111	38
RA		23	5	86	65	3.191	9.09	6.38	38.9	148.2	6.83	248	946	471	171	65
RA		24	2	80	71	1.148	3.64	2.30	43.8	155.0	2.76	101	356	191	69	25
RA		29	1	83	87	.410	1.82	1.23	49.9	213.3	1.69	61	263	117	42	18
RA		Totals	70	81	67	120.654	127.27	179.26	18.5	64.9	91.04	3,310	11,640	6,282	2,284	803
SS		10	2	78	26	6.667	3.64	6.67	6.5	20.0	1.12	43	133	77	30	9
SS		13	1	78	39	1.943	1.82	1.94	15.3	30.0	.77	30	58	53	21	4
SS		14	1	78	85	1.653	1.82	3.31	17.1	60.0	1.47	57	198	101	39	14
SS		15	1	78	66	1.482	1.82	2.96	16.4	40.0	1.26	49	119	87	34	8
SS		21	2	87	94	1.571	3.64	4.71	28.8	123.2	3.54	136	581	244	94	40
SS		23	1	85	97	.630	1.82	1.89	37.7	156.7	1.85	71	296	128	49	20
SS		24	1	81	61	.579	1.82	1.16	41.5	125.0	1.25	48	145	86	33	10
SS		26	1	89	105	.486	1.82	1.46	51.5	240.0	1.95	75	350	135	52	24
SS		27	1	82	72	.457	1.82	1.37	36.8	156.7	1.31	51	215	91	35	15
SS		30	1	89	83	.363	1.82	1.09	50.0	253.3	1.42	54	276	98	38	19
SS		Totals	12	80	53	15.831	21.82	26.56	23.1	89.3	15.95	614	2,371	1,101	423	164
OC		33	2	80	72	.612	3.64	1.53	68.2	262.0	2.61	104	401	180	72	28
OC		37	1	83	97	.250	1.82	.75	89.7	373.3	1.68	67	280	116	46	19
OC		38	1	77	54	.231	1.82	.46	96.5	290.0	1.11	45	134	77	31	9
OC		Totals	4	80	74	1.093	7.27	2.74	78.8	297.2	5.41	216	815	373	149	56
WH		16	1	81	83	1.286	1.82	2.57	23.5	70.0	1.93	60	180	133	42	12
WH		24	1	83	99	.584	1.82	1.17	60.6	210.0	2.26	71	245	156	49	17
WH		26	1	81	91	.509	1.82	1.53	42.4	166.7	2.07	65	254	143	45	18
WH		Totals	3	81	89	2.378	5.45	5.27	37.2	129.1	6.27	196	679	433	135	47
DF		20	1	81	79	.801	1.82	1.60	33.2	105.0	1.52	53	168	105	37	12
DF		23	1	81	110	.630	1.82	1.89	36.4	146.7	1.96	69	277	135	48	19
DF		Totals	2	81	93	1.431	3.64	3.49	34.9	127.6	3.48	122	445	240	84	31
WL		38	1	81	84	.231	1.82	.69	84.3	386.7	1.87	58	268	129	40	18
WL		Totals	1	81	84	.231	1.82	.69	84.3	386.7	1.87	58	268	129	40	18
Totals			92	81	66	141.619	167.27	218.01	20.7	74.4	124.01	4517	16,218	8,557	3,116	1,119



PROJECT SUMMARY SHEET

Sale: Kan Sam

CONSTRUCTION

Point	C to D	9+70	stations =	\$12,361.47
SUBTOTAL CONSTRUCTION				\$12,361.47

IMPROVEMENT

Point	A to B	53+00	stations =	\$4,508.50
Point	C to D	13+30	stations =	\$7,918.53
Point	E to F	1+30	stations =	\$441.95
SUBTOTAL IMPROVEMENT				\$12,868.98

MOVE IN	\$2,069.55
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GRAND TOTAL	\$27,300.00
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SUMMARY OF CONSTRUCTION COST

Sale:		Kan Sam		Road:		A to B		
Construction -	0+00	stations	Improvement -	53+00	stations	Reconstruction -	0+00	
	0.00	miles		1.00	miles		0.00	
ROCK								
Spot Rock	As Marked	100	cy. of	Crushed	@	\$12.12 per c.y.=	\$1,212.00	
Landing Rock	53+00	60	cy. of	Pit-Run	@	\$9.02 per c.y.=	\$541.20	
Junction Rock	0+00	20	cy. of	Crushed	@	\$11.71 per c.y.=	\$234.20	
							TOTAL ROCK	\$1,987.40
SPECIAL PROJECTS								
Pull ditch -		10.00	stations @	\$100.00	per station	\$1,000.00		
Grade and shape road -		53.00	stations @	\$15.50	per station	\$821.50		
Roll subgrade w/ vibratory roller prior to rocking -		53.00	stations @	\$13.20	per station	\$699.60		
							TOTAL SPECIAL PROJECTS	\$2,521.10
							GRAND TOTAL	\$4,508.50

Sale:		Kan Sam		Road:		C to D			
Construction -	9+70 0.18	stations miles	Improvement -	13+30 0.25	stations miles	Reconstruction -	0+00 0.00	stations miles	
CONSTRUCTION: CLEARING, GRUBBING, SCATTERING, EXCAVATION, COMPACTION, LOADING, END-HAULING AND SPREADING/COMPACTING AT WASTE AREA -									
Station	to	Station	Avg. Sideslope	Avg. Dist. To Road Fill (ft.)	Outslope/Ditch	Cost per Station			
0+00		3+70	20%		Outslope	\$139	=	\$514.30	
3+70		9+70	30%-70%	200	Outslope	\$1,012	=	\$6,072.00	
								TOTAL	\$6,586.30
ROCK									
0+00	to	17+00	1,270	cy. of	Pit-Run	@	\$9.08 per c.y.=	\$11,531.60	
Landing Rock		17+00	90	cy. of	Pit-Run	@	\$9.21 per c.y.=	\$828.90	
Junction Rock		0+00	20	cy. of	Pit-Run	@	\$8.96 per c.y.=	\$179.20	
								TOTAL ROCK	\$12,539.70
SPECIAL PROJECTS									
Construct landing at 17+00 -			1.00	@	\$200.00	each	\$200.00		
Construct turnaround -			1.00	@	\$75.00	each	\$75.00		
Grade and shape road (0+00 to 17+00) -			17.00	stations @	\$14.00	per station	\$238.00		
Roll subgrade w/ vibratory roller prior to rocking (0+00 to 17+00) -			17.00	stations @	\$13.20	per station	\$224.40		
Remove large stumps -			1.00	lump sum @	\$300.00		\$300.00		
Grass seed and fertilize -			0.53	acres @	\$220.00	per acre	\$116.60		
								TOTAL SPECIAL PROJECTS	\$1,154.00
								GRAND TOTAL	\$20,280.00

SUMMARY OF CONSTRUCTION COST

Sale:		<u>Kan Sam</u>			Road:		<u>E to F</u>		
<u>Construction -</u>		<u>0+00</u>	stations	<u>Improvement -</u>	<u>1+30</u>	stations	<u>Reconstruction -</u>	<u>0+00</u>	stations
		0.00	miles		0.02	miles		0.00	miles
ROCK									
Turn Out	0+00	20	cy. of	Pit-Run	@	\$9.17 per c.y.=		\$183.40	
Ditch Protection	---	20	cy. of	Riprap	@	\$9.46 per c.y.=		\$189.20	
								TOTAL ROCK	\$372.60
SPECIAL PROJECTS									
Grade and shape shoulder and ditch -		1.30	stations @			\$15.50 per station		\$20.15	
Grass seed -		0.06	acres @			\$220.00 per acre		\$13.20	
Mulching -		0.060	acres @			\$600.00 per acre		\$36.00	
								TOTAL SPECIAL PROJECTS	\$69.35
								GRAND TOTAL	\$441.95

ROCK PIT DEVELOPMENT AND CRUSHING COST SUMMARY

Pit:	Pit_Run	Location:	NW 1/4, NW 1/4, Sec 20, T1S, R7W, WM
Sale:	Kan Sam	Road:	1460 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	1460 c.y.
Drill Pct.:	40%	In Place Total:	1043 c.y.

Pit Development & Cleanup including Clearing and grubbing of Waste Area @ adjacent to pit, place overburden in Waste Area, spread and compact. \$620.76

Drill & Shoot:	\$2.50 /cu.yd.	x	417 cu.yds.	=	\$1,042.50
Rip Rock:	\$1.90 /cu.yd.	x	626 cu.yds.	=	\$1,189.40
Load Dump Truck:	\$0.70 /cu.yd.	x	1460 cu.yds.	=	\$1,022.00

Subtotal \$3,874.66

Move In and set up Drill and Compressor	1	@	\$340.78	=	\$340.78
Move in Roller and Compactor	1	@	\$340.78	=	\$340.78
Move in Grader	1	@	\$132.62	=	\$132.62
Move in Excavator	1	@	\$646.63	=	\$646.63
Move in Trucks	2	@	\$106.40	=	\$212.80
Move in Water Truck	1	@	\$125.07	=	\$125.07

Subtotal \$1,798.68

Base Cost=	\$3.89	Per Cu.Yd.	TOTAL PRODUCTION COSTS	\$5,673.34
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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 Landing Rock (Pit-Run)	4.03	1.10	3.89	9.02	60	\$541.20
C to D 0 1700 (Pit-Run)	4.09	1.10	3.89	9.08	1270	\$11,531.60
C to D Landing Rock (Pit-Run)	4.22	1.10	3.89	9.21	90	\$828.90
C to D Junction Rock (Pit-Run)	3.97	1.10	3.89	8.96	20	\$179.20
E to F Turn Out (Pit-Run)	4.18	1.10	3.89	9.17	20	\$183.40
				Total C.Y.	1460	Sub Total
						\$13,264.30

TOTAL ROCKING COSTS \$13,264.30

ROCK STOCKPILE USE COST SUMMARY

Pit:	Crushed	Location:	SE 1/4, SE 1/4, Sec. 25, T1S, R8W, W.M.
Sale:	Kan Sam	Road:	140 c.y.
Swell:	1.40	Stockpile:	c.y.
Shrinkage	1.16	Total Truck Loads:	140 c.y.
Drill Pct.:	0%	In Place Total:	100 c.y.

Load Dump Truck: \$0.70 /cu.yd. x 140 cu.yds. = \$98.00

Subtotal \$98.00

Move in Loader 1 @ \$461.51 = \$461.51
Move in Trucks 2 @ \$106.40 = \$212.80

Subtotal \$674.31

Base Cost= \$5.52 Per Cu.Yd. TOTAL PRODUCTION COSTS \$772.31

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 Spot Rock (Crushed)	4.15	2.45	5.52	12.12	100	\$1,212.00
A to B Junction Rock (Crushed)	3.74	2.45	5.52	11.71	20	\$234.20
E to F Ditch Protection (Riprap)	2.54	1.40	5.52	9.46	20	\$189.20
				Total C.Y.	140	Sub Total \$1,635.40

TOTAL ROCKING COSTS \$1,635.40

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

Sale: **Kan Sam**

LOWBOY HAUL (Round Trip)		
DIST. (mi)	ROADWAY	AVE SPEED (mph)
26.0	Pavement	30
3.0	Main Lines	7
4.0	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
2	Excavators (Large)	\$1,333.12	1	\$44.80	0.00	0.00	0	\$0.00	\$1,333.12
1	Tractor (D8)	\$625.86	2	\$15.10	0.00	0.00	0	\$0.00	\$625.86
1	Water Truck (1500 Gal)	\$110.57		\$2.85	0.00	0.00	0	\$0.00	\$110.57
				TOTAL MOVE-IN COSTS:					\$2,069.55



OREGON DEPARTMENT OF FORESTRY CRUISE REPORT

Kan Sam

1. Type of Sale

Regeneration harvest, Recovery.

2. Legal Description

Sections 14 and 15, T1S, R8W, W.M., Tillamook County, Oregon.

3. Sale Acreage

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

	ACRES	
	<u>Gross</u>	<u>Net</u>
Area 1 (Clearcut)	81	69

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

Eleven (11) plots were sampled on a rectangular grid pattern spaced 350' between plots and 700' between cruise lines.

All conifers 8 inches DBH and greater containing 20 net board feet and all hardwoods 9 inches DBH and greater containing 30 net board feet were sampled for tree species, DBH, form factor, merchantable height, visible defect and grade. Diameters were measured outside bark to the nearest inch and merchantable heights were recorded to the nearest foot. The point of tree observation was 4.5 feet on all plots.

B. Plot size

All plots were variable radius plots. A BAF of 20 was used for all species.

C. Grading System

Tree heights were measured to a 6" merchantable top for conifers, and 7" for hardwoods. All measurements were outside the bark. All species were graded

using Columbia River Log Scaling and Grading Bureau rules, favoring a 40' log.

5. **Computation Procedure**

The volumes and statistics for the timber cruised were computed using SuperACE 2004, developed by Atterbury Consultants, Inc. The standard error and the coefficient of variation for the cruise as based on net board feet per acre shown in the table below.

Area	C.V. (%)	S.E. (%)
1	34.0	10.7

6. **Hidden Defect and Breakage**

A 5% reduction was applied to conifers and a 10% reduction to hardwood volumes for hidden defect and breakage. This was in addition to visual defect deducted during the cruise.

7. **Timber Description**

About 30% of the sale along the west and east sides were burned in the 1939 Saddle Mountain Fire.

Approximately 30 acres of the sale was planted during the 1954-55 season, and during the 1969-70 season 20 acres was planted split between an initial plant and re-plant. The rest of the area is natural reproduction. Most of the area is a red alder stand with scattered spruce, hemlock and Douglas-fir are more concentrated along the ridge. About 10% of the area was sprayed to control alder along the north boundary. No other management has occurred to the stand.

Sale Area – Species (%)	DBH	Merchantable Bole Height	Merchantable Top
Area 1 - Alder (76%)	13.9	43	6"
Area 1 – Sitka Spruce (16%)	15.9	42	5"
Area 1 – Western Hemlock (5%)	20.5	78	5"
Area 1 – Douglas-fir (3%)	21.6	33	5"

8. **Cruiser Names/Dates**

2010, Cruised by ODF District Personnel

9. **Revenue Distribution**

FDF 100%

Tax Code: 9-1 100%

Deed Numbers: 169, 211

10. Attachments

Stand Table

Volume Summary

Log Stock Table

Logging Plan

11. Stand and Log Stock Tables Species Key

DF – Douglas-fir take

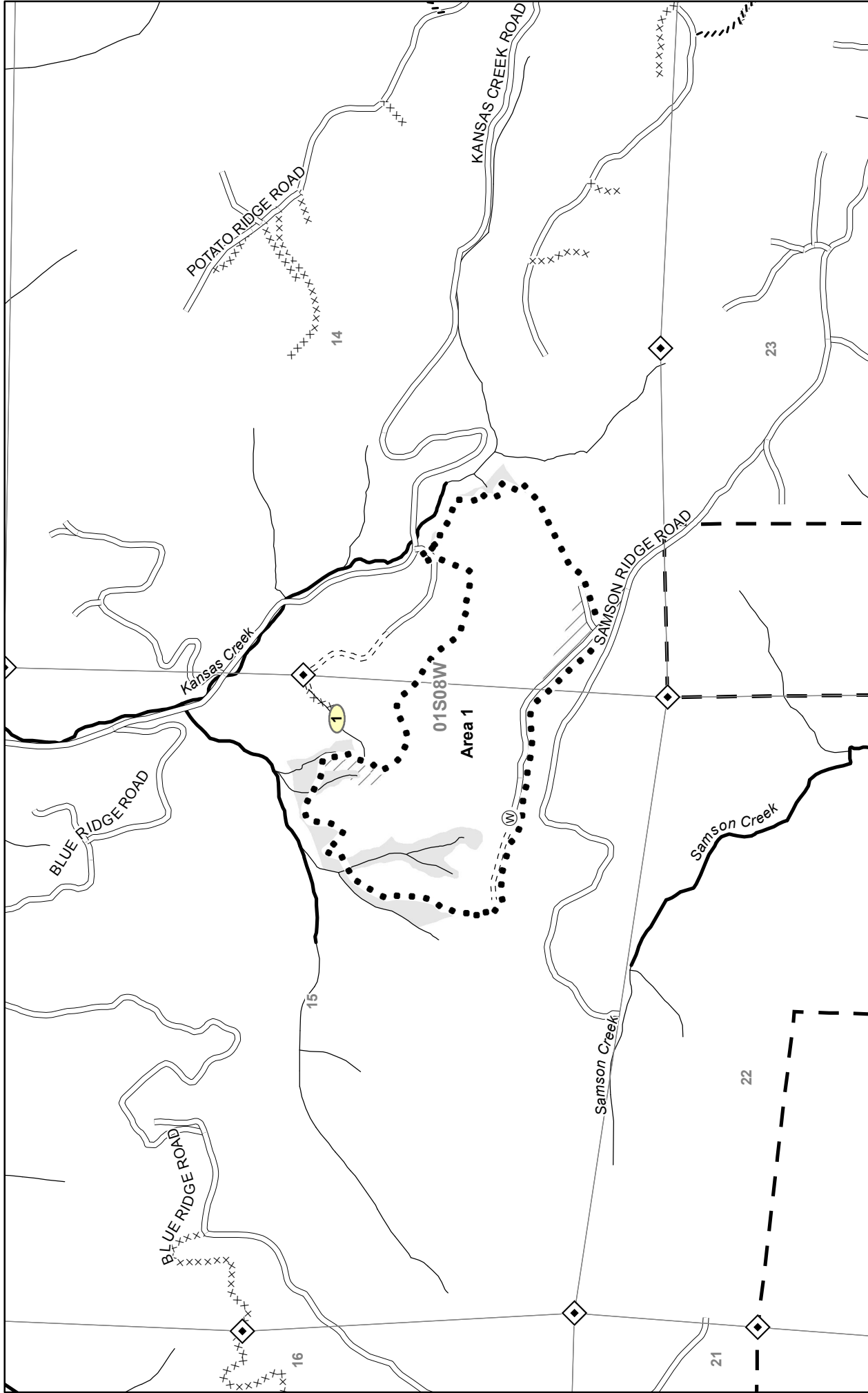
RA – Red alder take

SS – Sitka spruce take

OC – Sitka spruce reserved

WH – Western hemlock take

WL – Western hemlock reserved



Rock source

- Rock source
- Stock pile
- Waste area
- Bridge
- Gate
- Survey corner
- Domestic water supply intake
- Truck turn-around
- Helicopter landing zone
- Cultural site

Landing

- Buffer
- Non-required thinning
- Cable yarding
- Ground yarding
- Helicopter yarding
- Downhill yarding
- Green tree retention area

Restricted area

- Area boundary
- Sale boundary
- Ownership boundary
- Perennial Type-F stream
- Perennial Type-N stream
- Unsurfaced road
- Surfaced road
- Paved road
- Abandoned road

Swing road

- Swing road
- Non-project road
- Blocked road
- OHV trail
- Non-motorized trail
- Transmission line
- Railroad

LOGGING PLAN

Timber Sale Contract No. 341-13-57

Kan Sam

Portions of Sections 14 and 15

T1S, R8W, W.M.,

Tillamook County, Oregon

Type of Operation

Area 1 Clearcut

Acres

Gross 82 Net 69

Tillamook District GIS

06/04/2012

This product is for informational use and may not have been prepared or suitable for legal, engineering, or surveying purposes.