



Timber Sale Appraisal
Helloff Point
Sale 341-10-71

"STEWARDSHIP IN FORESTRY"

District: Tillamook

Date: February 09, 2010

cost summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$112,390.26	\$163,761.00	\$276,151.26
		Project Work:	\$(47,850.00)
		Advertised Value:	\$228,301.26



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timber description

Location: Portions of Sections 11, 12, 13, and 14, T3N, R9W, W.M., Tillamook County, Oregon.

Stand Stocking: 20%

SpecieName	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	13	0	95
Western Hemlock / Fir	12	0	95
Alder (Red)	14	0	90

Volume by Grade	2S	3S	4S	Utility	Total
Douglas - Fir	0	420	125	0	545
Western Hemlock / Fir	21	193	109	28	351
Alder (Red)	370	272	580	13	1,235
Total	391	885	814	41	2,131



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comments: Pond Values Used: 4th Quarter Calendar Year 2009.

Western Red Cedar & Other Cedars Stumpage Price = Pond Value minus
Logging Cost
 $\$577/\text{MBF} = \$790/\text{MBF} - \$213/\text{MBF}$

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$3.00/Gallon

HAULING COST ALLOWANCE

Hauling costs equivalent to \$700 daily truck cost.

Other Costs (with Profit & Risk to be added):

Brand and Paint: $\$2/\text{MBF} \times 2,131 \text{ MBF} = \$4,262$

TOTAL Other Costs (with Profit and Risk to be added) = \$4,262

Other Costs (No Profit & Risk added):

Non-Project Roads:

1,080 feet x \$150/station = \$1,620

400 feet x \$150/station = \$600

600 feet x \$75/station = \$450

Slash Piling and Sorting: \$1.20 acre of Partial Cut harvest x 199
acres = \$238.80

Tank trap installation on un-surfaced road and road vacating: 2 x
\$75 = \$150 + \$600 = \$750

Road vacating shall include water-bars and slashing of all dirt
roads. Tank traps where dirt roads meet rocked roads.

TOTAL Other Costs (No Profit & Risk added) = \$3,658.80

ROAD MAINTENANCE:

Final Grading: $\$500/\text{mile} \times 5.8 \text{ miles} / 2,131 \text{ MBF} = \$1.36/\text{MBF}$

Spot Rocking: $(\$15/\text{cy} \times 6 \text{ miles} \times 10\text{cy}/\text{MMBF}/\text{mile} \times 2.1\text{MMBF}) / 2,131$
MBF = \$.89/MBF

Compaction: $(268 \text{ stations} \times \$18/\text{station}) + (\$111 \text{ move-in}) / 2,131\text{MBF}$
= \$2.32/MBF

Final grading includes all roads on haul route including Gods
Valley County Road.

Compact all roads on haul route except Gods Valley County Road

TOTAL ROAD MAINTENANCE COST: \$4.57/MBF



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logging conditions

combination#: 1 Douglas - Fir 100.00%
 Western Hemlock / Fir 100.00%

yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Cable: Small Tower <=40 **Process:** Stroke Delimber
tree size: Mature / Partial Cut (900 Bft/tree), 3-5 logs/MBF
loads / day: 8.0 **bd. ft / load:** 4,000
cost / mbf: \$88.57

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

combination#: 2

 Alder (Red) 50.04%
yarding distance: Short (400 ft) **downhill yarding:** No
logging system: Shovel **Process:** Stroke Delimber
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 6.0 **bd. ft / load:** 2,500
cost / mbf: \$95.88

machines: Stroke Delimber (B)

combination#: 3

 Alder (Red) 49.96%
yarding distance: Medium (800 ft) **downhill yarding:** No
logging system: Cable: Small Tower <=40 **Process:** Stroke Delimber
tree size: Mature Private Forest / Regen Cut (250 Bft/tree), 6-11 logs/MBF
loads / day: 7.0 **bd. ft / load:** 2,500
cost / mbf: \$161.96

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



"STEWARDSHIP IN FORESTRY"

Timber Sale Appraisal
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 Sale 341-10-71

District: Tillamook

Date: February 09, 2010

logging costs

Operating Seasons:	2.00	Profit Risk:	15.00%
Project Costs:	\$47,850.00	Other Costs (P/R):	\$4,262.00
Slash Disposal:	\$0.00	Other Costs:	\$3,658.80

Miles of Road

Road Maintenance: \$4.57

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

Hauling Costs

Species	\$ / MBF	Trips/Day	MBF / Load
Douglas - Fir	\$0.00	2.0	4.0
Western Hemlock / Fir	\$0.00	3.0	4.3
Alder (Red)	\$0.00	2.0	2.1



"STEWARDSHIP IN FORESTRY"

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District: Tillamook

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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									
\$88.57	\$4.80	\$4.12	\$79.89	\$2.00	\$26.91	\$0.00	\$5.00	\$1.72	\$213.01
Western Hemlock / Fir									
\$88.57	\$4.80	\$4.12	\$49.55	\$2.00	\$22.36	\$0.00	\$5.00	\$1.72	\$178.12
Alder (Red)									
\$128.89	\$5.03	\$4.12	\$159.42	\$2.00	\$44.92	\$0.00	\$5.00	\$1.72	\$351.10

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$362.71	\$149.70	\$0.00
Western Hemlock / Fir	\$0.00	\$265.88	\$87.76	\$0.00
Alder (Red)	\$0.00	\$483.70	\$132.60	\$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
Alder (Red)	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	545	\$149.70	\$81,586.50
Western Hemlock / Fir	351	\$87.76	\$30,803.76
Alder (Red)	1,235	\$132.60	\$163,761.00

Gross Timber Sale Value

Recovery: \$276,151.26

Prepared by: Nick Stumpf

Phone: 503-842-2545

**Helloff
PULP
Appraisal**

Total Stems		stems/ac	acres	BF/Stem	Total MBF	Total Tons
4532	Douglas- fir	22	199	10	43	430
4738	Hemlock	23	199	10	45	450
12978	Alder	63	199	15	83	830

Stumpage		Pond/MBF	Log	Haul	Total	Conversion	Total \$/ton	Total Tons	Total Value
\$46	Douglas- fir	\$250	78.73	125	203.73		\$4.63	430	\$1990.9
\$96	Hemlock	\$300	78.73	125	203.73		\$9.63	450	\$4333.5
\$66	Alder	\$320	128.86	125	253.86		\$6.61	830	\$5486.3
				Avg.	220.44		Total	1710	\$11,810.70

**6.95 per ton
69.56 per MBF**

Enter Data Here

DBH	Douglas-fir T - Trees	Douglas-fir L - Trees	Spruce T - Trees	Hardwod L - Trees	Cedar L - Trees	alder T - Trees	Hemlock T Trees	Hemlock L - Trees	No. Plots
8"	1					2	3		40
9"	1					3	1		40
10"	1					5	1		40
11"	1					3	2		40
12"	1					4			40
13"	4					7	2		40
14"						2	1		40
15"	3					3	3	1	40
16"	7				2	9	1	4	40
18"	1	14			1	9	3	2	40
20"		13				9		3	40
22"		6				6		6	40
24"		12			1	2		4	40
26"		13			1			1	40
28"		12						3	40
30"		3						2	40
32"		2							40
34"		6			1			7	40
	Douglas-fir			Hardwod	Cedar	alder		Hemlock	
Trees/plt		2.53		0.00	0.15	1.60		1.25	
Tk trs/plt		0.50		0.00	0.00	1.60		0.43	
Lv trs/plt		2.03		0.00	0.15	0.00		0.83	



"STEWARDSHIP IN FORESTRY"

Helloff Point

Volume Summary:

Harvest Type PC							
199 acres							
SPECIES	QMD	Basal Area Per Acre	V-BAR	Vol/Acre MBF	Volume MBF	D & B	Net Vol MBF
Douglas-fir	12.9	20	144	2.9	574	5%	545
Hemlock	11.5	17	109	1.9	370	5%	351
Red Alder	13.7	64	108	6.9	1372	10%	1235
				0.0	0	5%	0
				0.0	0		0
TOTAL					2316		2131

TOTAL SALE VOLUME			199 acres
SPECIES	Gross Vol. (MBF)	Net Vol. (MBF)	
Douglas-fir	574	545	
Hemlock	370	351	
Red Alder	1372	1235	
TOTAL	2316	2131	

Operating Periods for Helloff Point

	January	February	March	April	May	June	July	August	September	October	November	December
Harvesting (All felling completed by March 15, 2012)												
Tractor Yarding												
Cable Yarding												

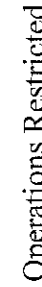
	January	February	March	April	May	June	July	August	September	October	November	December
Hauling												
*Log Hauling on "Timing Restriction" Surfaced Roads									15 th			
Log Hauling on "Unsurfaced" Roads												
Engine Compression Brakes (Jake Brakes)									15 th			

	January	February	March	April	May	June	July	August	September	October	November	December
Project Work												
*Road Improvement on "Timing Restriction" Surfaced Roads								5 th 6 th	15 th			
Road Improvement and Construction on other roads												
Activity in Live Streams												
Seeding						16 th		14 th	16 th			

	January	February	March	April	May	June	July	August	September	October	November	December
Harvesting Area designated "Seasonal Restriction" on Exhibit A.												
All Operations								6 th	15 th			

 Operations Allowed

 Operations Restricted

 Activity Restricted 2 hours before sunset and 2 hours after sunrise

* Timing Restriction roads include Gods Valley County Road, Hansen Road, Fall Helloff Road, and Helloff Ridge Road.

Volume Relationships by Species

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State	County	Project	Twn	Rng	Sec	Tract	Type No.	Acres
		HELLOFF						199.00

Item	Species							
	Total	DL	RA	WL	DF	WH	RL	Other
Total Gross Cunits	17,719	7,983	3,762	2,790	1,351	983	486	364
Total Net Cunits	17,714	7,981	3,761	2,787	1,351	983	486	364
Total Gross MBF	7,688	3,860	1,381	1,206	575	370	182	115
Total Net MBF	7,641	3,844	1,372	1,185	574	370	182	115
Total Tons	50,667	21,954	10,345	8,928	3,851	3,146	1,556	889
BA / Acre	228.00	81.00	64.00	33.00	20.00	17.00	7.00	6.00
Trees / Acre	154.772	26.769	62.612	11.616	21.868	23.430	5.793	2.684
QM DBH	16.4	23.6	13.7	22.8	12.9	11.5	14.9	22.2
Gross CuFt / Acre	8,904	4,012	1,890	1,402	679	494	244	183
Net CuFt / Acre	8,901	4,011	1,890	1,401	679	494	244	183
Net / Gross Ratio	1.000	1.000	1.000	0.999	1.000	1.000	1.000	1.000
Gross BdFt / Acre	38,633	19,396	6,938	6,062	2,890	1,857	912	577
Net BdFt / Acre	38,399	19,316	6,896	5,957	2,885	1,857	912	577
Net / Gross Ratio	0.994	0.996	0.994	0.983	0.998	1.000	1.000	1.000
Tons / Acre	255	110	52	45	19	16	8	4
Logs Per Acre	297	81	100	28	41	32	9	5
Avg Log Length	32.8	36.0	29.0	35.0	33.0	32.0	35.0	62.0
Lineal Ft Per Acre	9,719	2,931	2,895	986	1,354	1,033	328	79
G CuFt / SqFt BA	39.1	49.5	29.5	42.5	33.9	29.1	34.9	32.1
N CuFt / SqFt BA	39.0	49.5	29.5	42.4	33.9	29.1	34.9	32.1
G BdFt / SqFt BA	169.4	239.5	108.4	183.7	144.5	109.3	130.3	92.6
N BdFt / SqFt BA	168.4	238.5	107.7	180.5	144.2	109.3	130.3	92.6
Tons / SqFt BA	1.12	1.36	0.81	1.36	0.97	0.93	1.12	0.75
G CuFt / G MBF	230	207	272	231	235	266	268	346
N CuFt / N MBF	232	208	274	235	235	266	268	346
G BdFt / G CuFt	4.34	4.83	3.67	4.32	4.26	3.76	3.74	2.89
N Bdft / N CuFt	4.31	4.82	3.65	4.25	4.25	3.76	3.74	2.89
Tons / G CCF	2.86	2.75	2.75	3.20	2.85	3.20	3.20	2.35
Tons / G MBF	6.59	5.69	7.49	7.40	6.70	8.51	8.57	8.13
Lbs / G CuFt	57.19	55.00	55.00	64.00	57.00	64.00	64.00	47.00
Lbs / N BdFt	13.26	11.42	15.08	15.06	13.42	17.02	17.13	16.26
N CuFt / Lineal Ft	0.92	1.37	0.65	1.42	0.50	0.48	0.74	1.63
N BdFt / Lineal Ft	3.95	6.59	2.38	6.04	2.13	1.80	2.78	4.70
Lbs / Lineal Ft	52.40	75.27	35.92	91.00	28.58	30.62	47.60	76.48

TC		Stand Table Summary														
TSTNDSUM		Project HELLOFF														
T03N R09W S12 TPC										T03N R09W S12 TPC						
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	1							
03N	09W	12	HELLOFF	PC	199.00	40	228	Date:	1/5/2010							
								Time:	1:36:03PM							
S Spc	T	Sample			Av	Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Net			Totals		
		DBH	Trees	FF 16'	Ht Tot				Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Cu.Ft. Acre	Net Bd.Ft. Acre	Tons	Cunits	MBF
DL		18	5	89	139	2.829	5.00	7.92	28.8	127.9	6.27	228	1,013	1,249	454	202
DL		19	9	88	135	4.571	9.00	12.19	33.4	147.1	11.19	407	1,793	2,227	810	357
DL		20	7	88	134	3.209	7.00	9.63	34.1	153.3	9.01	328	1,476	1,794	652	294
DL		21	6	88	139	2.495	6.00	7.07	39.8	182.4	7.74	282	1,289	1,541	560	256
DL		22	1	80	121	.379	1.00	.76	46.3	80.0	.99	35	61	197	70	12
DL		23	5	87	156	1.733	5.00	5.89	41.1	191.2	6.65	242	1,126	1,324	481	224
DL		24	5	89	152	1.592	5.00	4.77	52.3	242.7	6.86	250	1,159	1,366	497	231
DL		25	7	88	159	2.053	7.00	6.45	57.0	278.2	10.11	368	1,795	2,013	732	357
DL		26	5	88	146	1.356	5.00	4.61	54.3	268.2	6.88	250	1,237	1,369	498	246
DL		27	8	88	160	2.012	8.00	6.79	62.5	317.8	11.68	425	2,158	2,324	845	429
DL		28	9	88	163	2.105	9.00	7.48	63.5	328.1	13.08	475	2,456	2,602	946	489
DL		29	3	87	135	.654	3.00	1.74	82.1	386.2	3.94	143	674	784	285	134
DL		30	2	89	165	.407	2.00	1.43	77.7	408.6	3.05	111	583	607	221	116
DL		31	1	84	135	.191	1.00	.57	80.6	366.7	1.27	46	210	252	92	42
DL		32	1	81	128	.179	1.00	.54	73.8	323.3	1.09	40	174	217	79	35
DL		33	1	88	174	.168	1.00	.67	85.7	475.0	1.59	58	320	316	115	64
DL		34	3	88	169	.476	3.00	1.59	106.1	582.0	4.63	168	923	921	335	184
DL		35	1	88	176	.150	1.00	.60	100.5	595.0	1.65	60	356	329	120	71
DL		39	1	87	148	.121	1.00	.36	134.6	730.0	1.34	49	264	266	97	53
DL		45	1	80	179	.091	1.00	.36	129.5	692.5	1.29	47	251	257	93	50
DL		Totals	81	88	146	26.769	81.00	81.43	49.3	237.2	110.32	4,011	19,316	21,954	7,981	3,844
RA		8	2	83	53	5.730	2.00	5.73	5.7	25.0	.90	33	143	180	65	29
RA		9	3	79	37	6.791	3.00	6.79	6.7	30.0	1.25	46	204	249	91	41
RA		10	5	82	75	9.167	5.00	11.00	11.0	46.7	3.34	121	513	664	241	102
RA		11	3	80	110	4.546	3.00	9.09	10.0	40.0	2.51	91	364	499	181	72
RA		12	4	84	96	5.093	4.00	10.19	12.4	50.0	3.48	127	509	693	252	101
RA		13	7	84	93	7.594	7.00	13.02	16.9	62.5	6.06	220	814	1,207	438	162
RA		14	2	81	83	1.871	2.00	3.74	15.8	57.5	1.63	59	215	324	118	43
RA		15	3	83	72	2.445	3.00	4.07	20.7	70.0	2.32	84	285	461	168	57
RA		16	9	83	78	6.446	9.00	11.46	23.6	82.5	7.44	270	945	1,480	538	188
RA		17	3	82	81	1.903	3.00	3.81	25.0	85.0	2.61	95	324	520	189	64
RA		18	6	84	82	3.395	6.00	5.66	32.8	114.0	5.10	185	645	1,015	369	128
RA		19	7	84	89	3.555	7.00	7.11	34.6	123.6	6.78	246	879	1,348	490	175
RA		20	2	85	62	.917	2.00	1.83	28.0	90.0	1.41	51	165	281	102	33
RA		21	6	83	76	2.495	6.00	4.99	38.2	125.0	5.24	191	624	1,043	379	124
RA		23	1	86	66	.347	1.00	.69	40.4	160.0	.77	28	111	153	56	22
RA		24	1	83	104	.318	1.00	.64	65.5	245.0	1.15	42	156	228	83	31
RA		Totals	64	82	77	62.612	64.00	99.82	18.9	69.1	51.98	1,890	6,896	10,345	3,761	1,372
WL		15	1	90	74	.815	1.00	1.63	17.2	70.0	.90	28	114	178	56	23
WL		16	3	87	81	2.149	3.00	4.30	20.5	75.0	2.82	88	322	562	176	64
WL		17	1	87	105	.634	1.00	1.27	30.3	110.0	1.23	38	140	245	77	28
WL		18	1	90	87	.566	1.00	1.13	29.8	115.0	1.08	34	130	215	67	26
WL		19	1	85	126	.508	1.00	1.02	40.8	155.0	1.33	41	157	264	82	31
WL		20	1	87	121	.458	1.00	1.38	32.9	143.3	1.45	45	197	288	90	39
WL		21	2	85	142	.832	2.00	2.49	37.9	168.3	3.02	94	420	601	188	84
WL		22	4	87	129	1.515	4.00	3.79	46.2	201.0	5.60	175	761	1,114	348	152
WL		23	2	86	140	.693	2.00	2.08	48.3	216.7	3.21	100	451	639	200	90
WL		24	3	85	128	.955	3.00	2.23	57.0	230.0	4.07	127	512	809	253	102
WL		25	1	87	136	.293	1.00	.88	55.6	253.3	1.57	49	223	312	97	44
WL		26	1	84	122	.271	1.00	.81	57.5	246.7	1.50	47	201	298	93	40
WL		28	1	81	155	.234	1.00	.70	71.3	306.7	1.60	50	215	319	100	43

TC		TSTNDSUM		Stand Table Summary												
Project													HELLOFF			
T03N R09W S12 TPC											T03N R09W S12 TPC					
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page:	2		Date:	1/5/2010				
03N	09W	12	HELLOFF	PC	199.00	40	228	Time:	1:36:03PM							
Spc	S T	Sample			Av			Average Log		Net		Net		Totals		
		DBH	Trees	16'	FF	Ht	Tot	Trees/ Acre	BA/ Acre	Logs Acre	Net Cu.Ft.	Net Bd.Ft.	Tons/ Acre	Cu.Ft. Acre	Bd.Ft. Acre	Tons
WL		29	2	84	124	.436	2.00	1.09	77.6	312.0	2.71	85	340	539	168	68
WL		31	2	80	132	.382	2.00	.95	90.7	356.0	2.79	87	340	556	172	68
WL		34	1	87	153	.159	1.00	.48	106.7	546.7	1.63	51	260	323	101	52
WL		36	1	85	125	.141	1.00	.42	98.3	440.0	1.33	42	187	266	83	37
WL		37	2	83	146	.268	2.00	.80	130.2	633.3	3.35	105	509	666	208	101
WL		39	1	82	129	.121	1.00	.24	167.7	675.0	1.29	40	163	257	80	32
WL		42	1	77	141	.104	1.00	.31	151.2	660.0	1.51	47	206	300	94	41
WL		47	1	82	120	.083	1.00	.17	162.1	655.0	.88	27	109	176	54	22
WL	Totals		33	86	115	11.616	33.00	28.17	49.7	211.4	44.86	1,401	5,957	8,928	2,787	1,185
DF		8	1	92	19	2.865	1.00	2.86	3.2	20.0	.26	9	57	52	18	11
DF		9	1	79	88	2.264	1.00	2.26	9.0	30.0	.58	20	68	115	40	14
DF		10	1	84	131	1.833	1.00	5.50	9.1	46.7	1.42	50	257	282	99	51
DF		11	1	88	81	1.515	1.00	1.52	13.6	40.0	.59	21	61	117	41	12
DF		12	1	86	82	1.273	1.00	2.55	11.3	50.0	.82	29	127	164	58	25
DF		13	4	87	90	4.340	4.00	7.59	14.9	54.3	3.23	113	412	642	225	82
DF		15	3	88	105	2.445	3.00	4.89	22.0	96.7	3.07	108	473	611	214	94
DF		16	4	87	112	2.865	4.00	6.45	23.0	101.1	4.22	148	652	839	294	130
DF		17	3	89	130	1.903	3.00	5.71	23.8	105.6	3.87	136	603	770	270	120
DF		18	1	82	134	.566	1.00	1.70	26.7	103.3	1.29	45	175	257	90	35
DF	Totals		20	87	92	21.868	20.00	41.03	16.5	70.3	19.35	679	2,885	3,851	1,351	574
WH		8	3	81	57	8.594	3.00	8.59	5.7	26.7	1.56	49	229	310	97	46
WH		9	1	81	91	2.264	1.00	2.26	11.6	40.0	.84	26	91	167	52	18
WH		10	1	80	99	1.833	1.00	1.83	14.8	60.0	.87	27	110	173	54	22
WH		11	2	88	96	3.031	2.00	6.06	11.8	55.0	2.28	71	333	454	142	66
WH		13	2	84	70	2.170	2.00	3.25	17.5	56.7	1.82	57	184	362	113	37
WH		14	1	83	87	.935	1.00	1.87	17.1	60.0	1.02	32	112	204	64	22
WH		15	3	85	81	2.445	3.00	4.07	21.2	68.0	2.77	86	277	550	172	55
WH		17	1	86	98	.634	1.00	1.27	29.3	110.0	1.19	37	140	237	74	28
WH		19	3	86	109	1.524	3.00	3.05	35.5	125.0	3.46	108	381	689	215	76
WH	Totals		17	83	78	23.430	17.00	32.27	15.3	57.6	15.81	494	1,857	3,146	983	370
RL		10	1	80	62	1.833	1.00	1.83	11.1	40.0	.65	20	73	130	41	15
RL		13	1	81	66	1.085	1.00	1.08	22.4	60.0	.78	24	65	154	48	13
RL		16	1	83	117	.716	1.00	2.15	19.7	86.7	1.36	42	186	270	84	37
RL		17	1	84	102	.634	1.00	1.27	29.9	115.0	1.21	38	146	241	75	29
RL		19	3	85	105	1.524	3.00	3.05	39.2	145.0	3.82	119	442	760	238	88
RL	Totals		7	82	85	5.793	7.00	9.38	26.0	97.2	7.82	244	912	1,556	486	182
RC		16	1	75	70	.716	1.00	.72	24.7	40.0	.42	18	29	83	35	6
RC		23	1	78	106	.347	1.00	.69	53.9	165.0	.88	37	114	175	74	23
RC		26	1	75	96	.271	1.00	.54	61.3	160.0	.78	33	87	155	66	17
RC		35	1	76	114	.150	1.00	.30	133.5	470.0	.94	40	141	187	80	28
RC	Totals		4	76	88	1.484	4.00	2.25	57.0	164.6	3.01	128	371	600	255	74
BM		17	1	90	87	.634	1.00	1.27	26.1	105.0	.88	33	133	175	66	27
BM		18	1	79	55	.566	1.00	1.13	19.2	65.0	.57	22	74	114	43	15
BM	Totals		2	85	72	1.200	2.00	2.40	22.8	86.1	1.45	55	207	289	109	41
Totals			228	84	94	154.772	228.00	296.75	30.0	129.4	254.61	8901	38,399	50,667	17,714	7,641

TC TLOGSTVB

Log Stock Table - MBF

Project: HELLOFF

T03N R09W S12 TPC

T03N R09W S12 TPC

Twp Rge Sec Tract Type Acres Plots Sample Trees
 03N 09W 12 HELLOFF PC 199.00 40 228

Page 1
 Date 1/5/2010
 Time 1:35:50PM

Spp	T	S	So	Gr	Log	Gross	% Def	Net	% Spc	Net Volume by Scaling Diameter in Inches											
										MBF	MBF	2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29
DL		8	2	26		33	2.1	32	.8							17		15			
DL		8	2	32		17		17	.4							17					
DL		8	2	40		2,444	.1	2,442	63.5					149	430	1004	622	208	30		
DL		8	3	26		2		2	.0												
DL		8	3	29		2		2	.0				2								
DL		8	3	32		169	.6	168	4.4				30	86	8	44					
DL		8	3	35		3		3	.1				3								
DL		8	3	38		4		4	.1				4								
DL		8	3	40		1,044	1.2	1,032	26.8				44	115	269	253	297	54			
DL		8	4	12		1		1	.0					1							
DL		8	4	14		1		1	.0					1							
DL		8	4	15		3		3	.1					3							
DL		8	4	16		7		7	.2		5			2							
DL		8	4	19		2		2	.1					2							
DL		8	4	20		4		4	.1		1			1	1						
DL		8	4	21		2		2	.0					2							
DL		8	4	22		5		5	.1					3							
DL		8	4	23		2		2	.1												
DL		8	4	24		3		3	.1					1	2						
DL		8	4	25		3		3	.1						3						
DL		8	4	26		2		2	.1					2							
DL		8	4	27		2		2	.0					2							
DL		8	4	29		26		26	.7					17	8						
DL		8	4	30		2		2	.1					2							
DL		8	4	32		5		5	.1					5							
DL		8	4	33		3		3	.1					3							
DL		8	4	34		5		5	.1					5							
DL		8	4	35		5		5	.1					5							
DL		8	4	36		8		8	.2					8							
DL		8	4	37		3		3	.1					3							
DL		8	4	38		3		3	.1					3							
DL		8	4	40		48		48	1.3					22	26						
DL		Totals				3,860		3,844	50.3		85	101	152	359	410	771	1092	622	223	30	
RA		8	2	26		16	7.7	15	1.1					15							
RA		8	2	32		142		142	10.3					122	19						
RA		8	2	40		205	.4	204	14.8					155	23	25					
RA		8	3	32		107		107	7.8					107							
RA		8	3	35		18		18	1.3					18							
RA		8	3	40		129		129	9.4					6	124						
RA		8	4	15		4		4	.3					4							
RA		8	4	16		2		2	.1					2							
RA		8	4	17		6		6	.5					6							
RA		8	4	18		14		14	1.0					14							
RA		8	4	19		25		25	1.8					23	3						
RA		8	4	20		11		11	.8					11							
RA		8	4	21		21		21	1.5					9	12						
RA		8	4	22		23		23	1.7					23							
RA		8	4	23		43		43	3.1					43							
RA		8	4	24		9		9	.7					9							
RA		8	4	25		16		16	1.1					16							

TC		ILOGSTVB		Log Stock Table - MBF																			
Project:										HELLOFF													
T03N R09W S12 TPC										T03N R09W S12 TPC													
Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	Page	3														
03N	09W	12	HELLOFF	PC	199.00	40	228	Date	1/5/2010														
								Time	1:35:50PM														
Spp	S	So	Gr	Log	Gross	%	Net	%	Net Volume by Scaling Diameter in Inches														
									T	rt	de	Len	MBF	Def	MBF	Spc	2-3	4-5	6-7	8-9	10-11	12-13	14-15
DF	8	4	34		9		9	1.5			9												
DF	8	4	35		6		6	1.0			6												
DF	8	4	36		6		6	1.0			6												
DF	8	4	37		6		6	1.1			6												
DF	8	4	40		36		36	6.2			27	9											
DF	Totals				575		574	7.5			119	52	162	143	97								
WH	8	2	40		24		24	6.6						24									
WH	8	3	32		9		9	2.5				9											
WH	8	3	40		195		195	52.9			34	114	23	24									
WH	8	4	15		3		3	.9			3												
WH	8	4	19		4		4	1.2			4												
WH	8	4	21		5		5	1.4			5												
WH	8	4	24		24		24	6.4			24												
WH	8	4	27		17		17	4.6			17												
WH	8	4	35		5		5	1.4			5												
WH	8	4	40		54		54	14.5			22	32											
WH	8	UT	17		11		11	3.1			11												
WH	8	UT	26		17		17	4.6			17												
WH	Totals				370		370	4.8			106	69	123	23	49								
RL	8	2	40		69		69	37.9						69									
RL	8	3	40		48		48	26.6						48									
RL	8	4	20		7		7	3.9				7											
RL	8	4	22		4		4	2.4			4												
RL	8	4	30		15		15	8.0			15												
RL	8	4	35		6		6	3.5			6												
RL	8	4	37		6		6	3.3			6												
RL	8	4	40		26		26	14.4			26												
RL	Totals				182		182	2.4			57	7	48	69									
RC	8	3	40		64		64	86.3					5		36			23					
RC	8	4	26		2		2	2.2			2												
RC	8	4	31		6		6	7.7			6												
RC	8	4	39		3		3	3.7			3												
RC	Totals				74		74	1.0			4	6		5	36			23					
BM	8	4	20		11		11	27.4						11									
BM	8	4	22		3		3	8.2			3												
BM	8	R	26		4		4	9.2			4												
BM	8	R	40		23		23	55.2						23									
BM	Totals				41		41	.5			7			23	11								
Total All Species					7,688		7,641	100.0			343	796	776	1019	1028	1041	1472	721	416		30		



OREGON DEPARTMENT OF FORESTRY CRUISE REPORT *Helloff Point*

1. Type of Sale

Thinning harvest with pockets of Modified Clear-cut , Recovery

2. Legal Description

Sections 11, 12, 13, and 14, T 3N, R9W, 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>
Sale Area (Partial Cut)	226	199
<u>Gross Acres</u> Area within the Timber Sale Boundary signs		
<u>Net acres</u> <i>Used for calculating the advertised volume.</i> 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

A total of 40 variable radius plots were taken. All conifers 8 inches DBH and greater containing 20 net board feet and all hardwoods 10 inches DBH and greater containing 30 net board feet were recorded on all plots. Species were recorded on all trees, and they were measured for merchantable height, diameter, and form factor.

B. Plot size

A basal area factor of 40 was used. The point of observation was 4.5 feet.

C. Grading System

All trees were graded according to Columbia River Log Scaling and Grading Rules. Tree heights were recorded to a 6 inch top outside bark for all conifers and 7 inches outside bark for hardwoods; or three tenths (0.3) of DBH for all species, whichever was greater. Log lengths all favored 40 feet for all species. Heights and diameter measurement standards were to the nearest foot or inch respectively.

5. Computation Procedure

Plot data was entered into SuperAce for computation of basal area, stand tables, and volume for each species and type. Take and leave trees were determined from the plot data to meet prescription targets. For the combined cruise all areas the standard error was 11% and the coefficient of variation was 72% on board foot volumes.

6. Hidden Defect and Breakage

A 5% hidden defect was applied to conifer species, and 10% for hardwoods.

7. Timber Description

The sale was harvested in the early 1900's and has naturally regenerated into a mix of native conifer with patches of red alder.

8. Cruiser Names/Dates

Service Contract cruiser, 2008

9. Revenue Distribution

FDF 100%

Tax Code: 56-1

Deed Numbers: 35, 70, 96

10. Attachments

Stand Table

Volume Summaries

Log Stock Tables

Logging Plan

11. Stand and Log Stock Tables Species Key

DL – Douglas-fir leave

DF – Douglas-fir take

RL – Red alder leave

RA – Red alder take

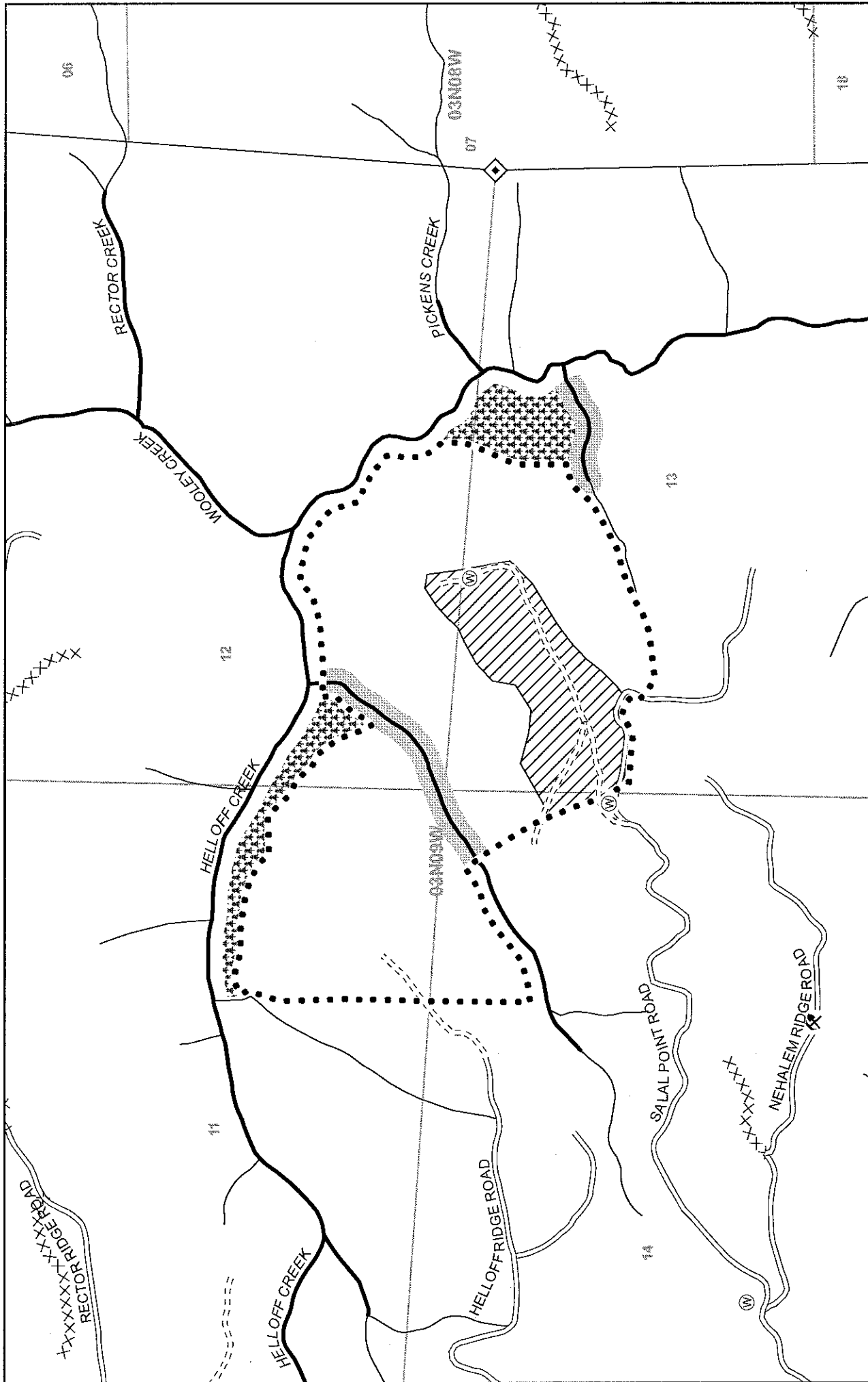
RC – Western red cedar reserved

SL – Sitka spruce leave

SS – Sitka spruce take

WL – Western hemlock leave

WH – Western hemlock take



	Rock source		Swing road
	Stock pile		Non-project road
	Waste area		Blocked road
	Bridge		Road construction
	Gate		OHV trail
	Survey corner		Non-motorized trail
	Domestic water supply intake		Transmission line
	Truck turn-around		Railroad
	Helicopter landing zone		
	Buffer		
	Non-required thinning		
	Cable yarding		
	Ground yarding		
	Helicopter yarding		
	Downhill yarding		
	Green tree retention area		
	Area boundary		
	Sale boundary		
	Ownership boundary		
	Perennial Type-F stream		
	Perennial Type-N stream		
	Unsurfaced road		
	Surfaced road		
	Paved road		
	Abandoned road		

LOGGING PLAN
 Timber Sale Contract No. 341-10-71
 Helloff Point
 Portions of Sections 11, 12, 13 and 14
 T3N, R9W, W.M.,
 Tillamook County, Oregon

Tillamook District GIS
 12/22/2009
 This product is for informational use and may not have been prepared or suitable for legal, engineering, or surveying purposes.

Type of Area Operation: Partial cut
 Acres Gross Net: 226 199

Scale: 0 to 1,000 Feet