WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

TIMBER NOTICE OF SALE

***SALE NAME**: UPPER SALMON* ***AGREEMENT NO**: 30-094253*

DRAFT

AUCTION: February 23, 2017 starting at 10:00 a.m., **COUNTY:** Pacific
Pacific Cascade Region Office, Castle Rock, WA

SALE LOCATION: Sale located approximately 12 miles east of Naselle.

PRODUCTS SOLD AND SALE AREA: All timber, except trees marked with blue paint, trees bounded out by yellow Leave Tree Area tags with pink flagging, all down timber greater than 36 inches in diameter and all pre-existing stumps, bounded by the following: White Timber Sale Boundary tags with pink flagging and the 5920 and 5920D roads in Unit 1; white Timber Sale Boundary tags with pink flagging and reprod in Unit 2; white Timber Sale Boundary Tags with pink flagging and the 5920 road in Unit 3; all timber bounded by orange Right-of-Way Boundary tags with orange flagging in Unit 4 in part(s) of Sections 24 and 25 all in Township 11 North, Range 8 West, W.M. containing 127 acres, more or less.

CERTIFICATION: This sale is certified under the Sustainable Forestry Initiative® program Standard (cert no: BV-SFIS-US09000572)

ESTIMATED SALE VOLUMES AND QUALITY:

DRAFT

Species	Avg DBH	Ring Count	Total MBF	MBF by Grade 1P	2P	3P	1S	2S	3S	4S	UT
Douglas fir	15.9	7	1,702				243	370	752	275	62
Hemlock	14.2	7	1,176				528	111	271	184	82
Red alder	10.8							5	1	18	2
Sale Total			2,904								

MINIMUM BID: $[illegible]00 **BID METHOD:** Sealed Bids

PERFORMANCE SECURITY: $0.00 **SALE TYPE:** Lump Sum

EXPIRATION DATE: October 31, 20[illegible] **ALLOCATION:** Export Restricted

BID DEPOSIT: $0.00 or Bid Bond. Said deposit shall constitute an opening bid at the appraised price.

HARVEST METHOD: Cable, Ground based equipment, Shovel and Track skidder. Harvesting activities are estimated to be 22% cable harvesting and 78% ground-based harvesting. Ground-based harvesting equipment shall be restricted to slopes of 40% and less, and during dry soil conditions. See clauses H-140 for further harvest requirements. A detailed felling and yarding plan shall be required prior to any harvest activities and approved in writing by the Contract Administrator.

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TIMBER NOTICE OF SALE

ROADS: 17.56 stations of required construction. 16.60 stations of required reconstruction. 16.74 stations of optional construction. 16.90 stations of optional reconstruction. 45.50 Stations of required pre-haul maintenance. Rock for construction, reconstruction, and pre-haul maintenance under this contract shall be obtained from any commercial rock source at the Purchaser's expense. Rock amounts used in accordance with the quantities on the ROCK LIST. Rock sources are subject to written approval by the Contract Administrator before their use. Road work will not be permitted from October 1 to April 30 unless authorized in writing by the Contract Administrator.

ACREAGE DETERMINATION

CRUISE METHOD: The sale acres were determined by GIS delineation. Cruise was completed using variable plot cruise methods (Units 1-3) and strip method cruise method (Unit 4).

FEES: $51,546.00 is due on day of sale. $9.00 per MBF is due upon removal. These are in addition to the bid price.

SPECIAL REMARKS: This sale has approximately 34 MBF of high quality 2 saw DF, 209 MBF of high quality 3 saw DF, 278 MBF of high quality 2 saw WH, and 25[illegible] MBF of high quality 3 saw WH. Unit 4 is a daylighting located along the 392[illegible] on both sides of the road. See driving map for gate locations. PCP 1-1 gate keys may be obtained from the Pacific Cascade Region office. The gates may remain open during haul must be locked or securely fastened in the open position.

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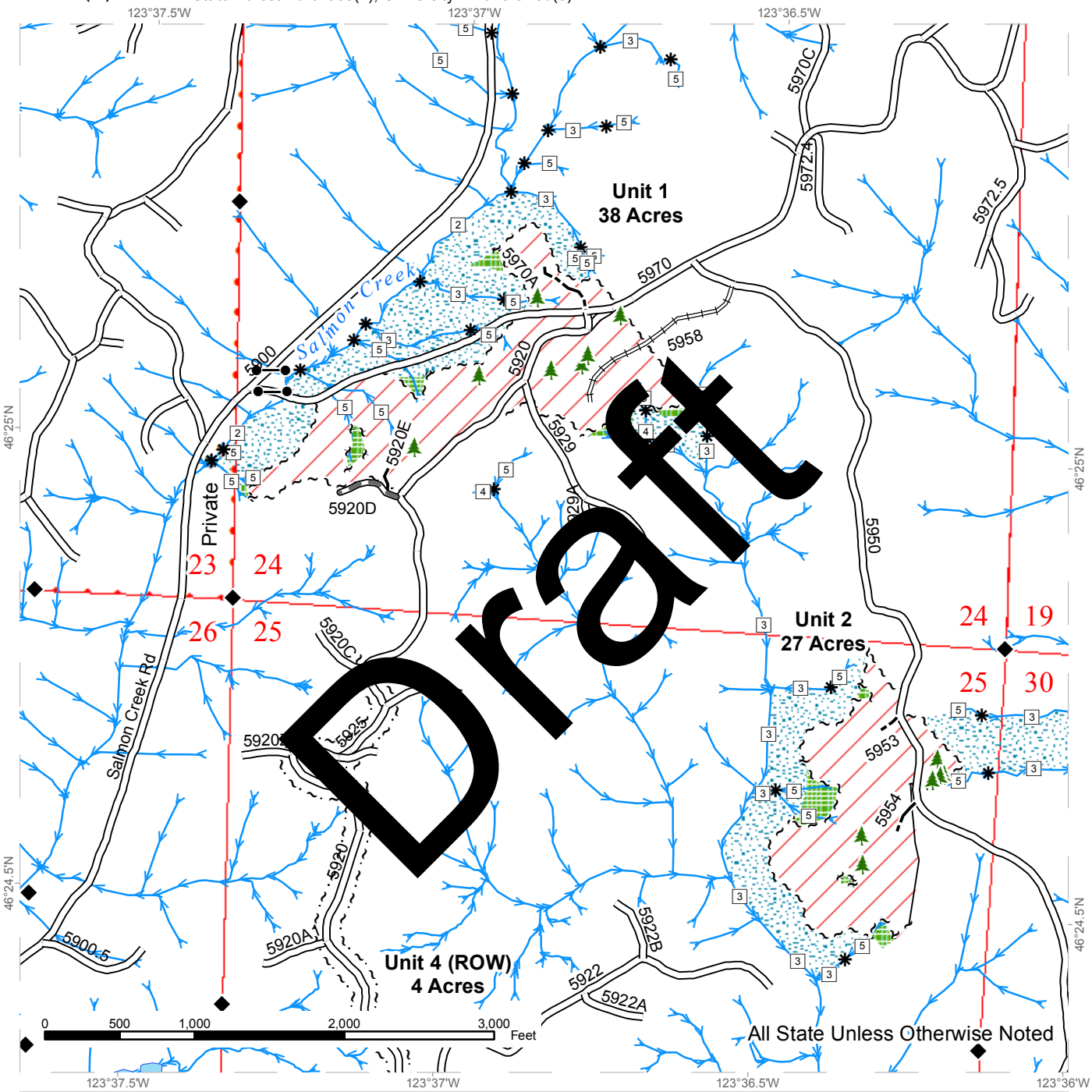
TIMBER SALE MAP

SALE NAME: UPPER SALMON
AGREEMENT #: 30-094253
TOWNSHIP(S): T11R08W
TRUST(S): State Forest Purchase(2), University - Transferred(5)

REGION: Pacific Cascade Region
COUNTY(S): PACIFIC
ELEVATION RGE: 339-773



Sale Area	Existing Roads	Streams
Leave Tree Area	Pre-Haul Maintenance	Stream Type
Riparian Mgt Zone	Required Reconstruction	Stream Type Break
Sale Boundary Tags	Optional Construction	Monumented Corners
Leave Tree Tags		Leave Trees
Right of Way Tags		Gate
Reprod		

N

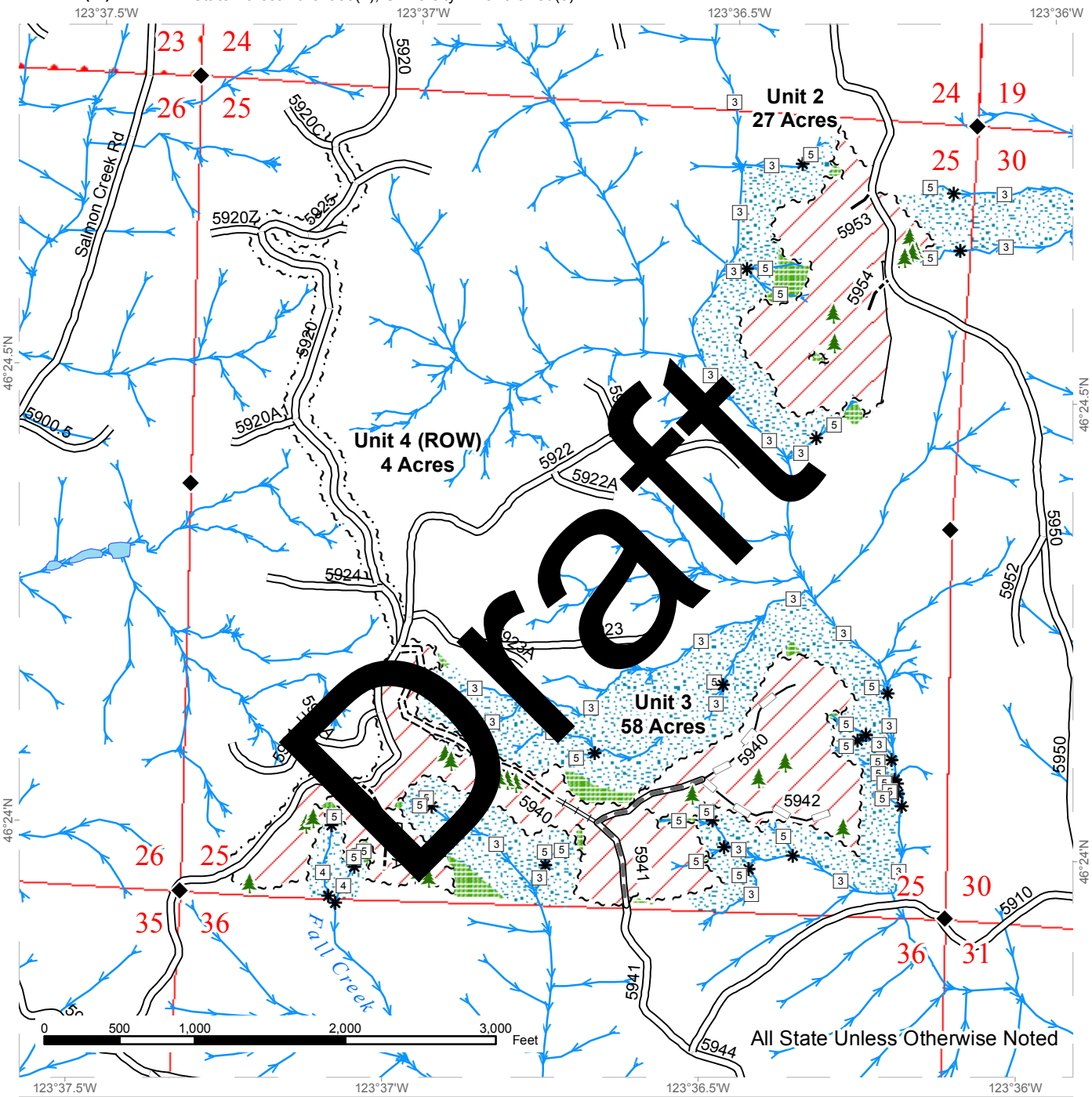
Prepared By: lhow490 05/27/2016

Modification Date: 8/15/2016

TIMBER SALE MAP

SALE NAME: UPPER SALMON
AGREEMENT #: 30-094253
TOWNSHIP(S): T11R08W
TRUST(S): State Forest Purchase(2), University - Transferred(5)

REGION: Pacific Cascade Region
COUNTY(S): PACIFIC
ELEVATION RGE: 339-773



Sale Area	Existing Roads	Streams
Leave Tree Area	Pre-Haul Maintenance	Stream Type
Riparian Mgt Zone	Required Construction	Stream Type Break
Sale Boundary Tags	Required Reconstruction	Monumented Corners
Leave Tree Tags	Optional Construction	Leave Trees
Right of Way Tags	Optional Reconstruction	
Reprod		

N

Prepared By: lhow490 05/27/2016

Modification Date: 8/15/2016

DRIVING MAP

SALE NAME: UPPER SALMON
AGREEMENT#: 30-094253
TOWNSHIP(S): T11R08W
TRUST(S): State Forest Purchase(2), University - Transferred(5)

REGION: Pacific Cascade Region
COUNTY(S): PACIFIC
ELEVATION RGE: 339-773

Timber Sale Unit	
Highways	
Haul Route	
Other Route	
New Construction	
Milepost Markers	
Distance Indicator	
★ Town	

DRIVING DIRECTIONS:

From State Route 4 between mile marker 8 and 9: Turn north onto Salmon Creek County Road.
Continue on the Salmon Creek County Road 4.6 miles to the 4900.
Turn right onto the 4900 and continue 2.0 miles .
Stay right back onto the Salmon Creek County road and continue 0.6 miles to the 5910.
Turn Right onto the 5910 and continue 0.9 miles to the 5920.
Turn Left onto the 5920 and continue 0.3 miles to Unit 3.
From Unit 3: continue 1.4 miles on the 5920 to Unit 1.
From Unit 1: take the 5970 to the 5950. Continue 0.7 miles on the 5950 to Unit 2.

N

Prepared By: lhow490 05/27/2016

Modification Date: 8/8/2016

Cruise Narrative

Sale Name: Upper Salmon	**Region:** Pacific Cascade
App. #: 30-094253	**District: St. Helens**
Lead Cruiser: Bryce Frank	**Completion date:** 06-28-2016
Other Cruisers: Eric Carlson , Kalvin Bailey	

Unit acreage specifications:

Unit #	Cruised acres	Cruised acres agree with sale acres? Yes/No	If acres do not agree explain why.
1	38	Yes	
2	27	Yes	
3	58	Yes	
4 ROW	4	Yes	
Total	127	Yes	

Unit cruise specifications:

Unit #	Sample type (VP, FP, ITS,100%)	Expansion factor (BAF, full/ half)	Sighting height (4.5 ft, 16 ft.)	Grid size (Plot spacing or % of area)	Plot ratio (Cru./Tally)	Total number of plots
1	VP	46.94	4.5 ft	225' x 225'	1:1	33
2	VP	46.94	4.5 ft	220' x 220'	1:1	24
3	VP	40	ft	240' x 240'	1:1	42
4 ROW	Strip	8.45	4.5 ft	12%	Cruise All	1

Sale/Cruise Description:

Minor species cruise intensity:	Cruised all appropriate plots.					
Minimum cruise spec:	40% Form- Factor at 16 feet D.O.B or 5 inch Top, and merchantable top.					
Avg. ring count by sp:	**DF** =	7	**WH** =	7	**SS** =	n/a
Leave/take tree description:	Leave tree clumps are bounded with yellow "Leave Tree Area" tags and pink flagging, individual leave trees are marked with a single band of blue paint.					

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Sort Description:	**HA**– Logs meeting the following criteria: Surface characteristics for a high quality A sort will have sound tight knots not to exceed 1 ½" in diameter, numbering not more than an average of one per foot of log length. May include logs with not more than two larger knots. Knots and knot indicators ½" in diameter and smaller shall not be a determining factor. Logs will have a growth ring count of 6 or more rings per inch in the outer third top end of the log. (min dia 8".) **HB** – Logs meeting the following criteria: Surface characteristics for a B sort will have sound tight knots not to exceed 1 ½" in diameter. May include logs with not more than two larger knots up to 2 ½" in diameter. Logs will have a growth ring count of 6 or more rings per inch in the outer third to end of the log. (min dia 8".) **R** – Logs meeting the following criteria: Gross diameter of 12 inches or greater, excessive knots greater than 2 ½ inches with recovery less than 65% of the net scale.
Status Description:	**P** – Logs classified as pole volume. **D** – Logs classified as merchantable standing dead.

Field observations:

Upper Salmon - consists of 4 units for a total of 127 acres and **2[illegible]4 mbf**. Unit 1 and 2 and 3 are VRH units and unit 4 is a 4 acre ROW.

Unit 1 is located northwest of the 5920 and is accessible from the road. The unit consisted of a mixed species Douglas-Fir (DF) and Western Hemlock (WH) stand. DF composed 49% of the volume followed by WH at 49%, some Red Alder (RA) was present at 2% volume. DF and WH were similar in dimensions, with a 15" average DBH and 75' bole height. Defect was notable at 4.1%, consisting of rotten butts, split tops and irregular form (much of which was called as utility). Unit 1 is 38 acres and holds **[illegible]46 mbf** of timber for an average per-acre volume of 27,520 bdft.

Unit 2 is located southwest of the 59[illegible]. In contrast to Unit 1, the southern half consisted of a WH monoculture (which contained most of the volume in the unit), while the northern half consisted of a DF monoculture, with smaller diameters and less basal area. DF composed 2[illegible]% volume and WH composed the other 74%. WH was very regular throughout the unit, with little variation in size or grade. Average diameter and height for WH were 14.4" and 76' respectively. Defect was very minor at 1.9%. Unit 2 is 27 acres and holds **830 mbf** of timber for an average per-acre volume of [illegible]46 bdft.

Unit 3 is located southeast of the 59[illegible]. In contrast to Units 1 and 2, the entire unit is a young DF monoculture stand, with a very sparse WH presence. DF dominates the volume at 95%, with WH making up the remaining 5%. Average diameter and height for DF were 16.2" and 69' respectively. This stand has notable defect at 4.8%, consisting of broken and split tops and rotten butts (similar to Unit 1). Unit 3 is 58 acres and holds **987 mbf** of timber for an average per-acre volume of 17,015 bdft.

Unit 4 ROW is a daylighting located off the 5920 on both sides of the road, consisting mainly of 9-15 inch DF and WH with a very small Red Alder (8-12 inches) throughout.

Access to all the units is relatively easy as they are all located off the roads. It should be noted that Unit 3 *cannot* be accessed from the south directly from the 5940, as the road is blocked from access on the 5910 near the southeast corner of the unit by a large pile of rocks. It would be advisable to walk the already present roads in this unit to easily access the far eastern end if desired.

The harvest system is 78% ground based and 22% uphill cable.

Grant: 02, 05 **Prepared by: Bryce Frank** **Title: Timber Cruiser**

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TC PSPCSTGR

Species, Sort Grade - Board Foot Volumes (Project)

T11N R08W S24 Ty00U1
THRU
T11N R08W S24 TyROW4

Project: **UPPERSAL**

Acres **127.00**

Page **1**
Date **6/28/2016**
Time **12:43:00PM**

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. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF	HB	2S	2	3.6	280	270	34			100					100	39	14	254	1.62	1.1
DF	HB	3S	12	2.8	1,695	1,648	209		100					3	97	38	9	119	0.83	13.8
DF	D	2S	22	6.4	3,115	2,916	370			94	6			17	83	38	13	211	1.58	13.8
DF	D	3S	44	5.8	6,286	5,919	752	24	76			1	1	22	77	37	8	92	0.75	64.6
DF	D	4S	16	.7	2,175	2,161	274	98	2			16	37	24	22	27	5	30	0.33	72.2
DF	D	UT	4		489	489	62	47	34	19		41	10	15	35	24	6	41	0.56	12.0
DF	**Totals**		59	4.5	14,040	13,402	1,702	28	47	23	1	4	7	18	71	32	7	76	0.69	177.5
WH	HA	2S	1		181	181	23			100					100	40	13	240	1.38	.8
WH	HB	2S	22	3.0	2,072	2,010	255			95	5			3	97	39	13	226	1.39	8.9
WH	HB	3S	21	2.1	2,008	1,965	250		100					6	94	39	9	118	0.75	16.7
WH	D	2S	10	6.7	939	876	111				28	13		18	69	35	13	203	1.49	4.3
WH	D	3S	23	2.4	2,189	2,136	271	42	58				1	11	87	38	8	88	0.64	24.2
WH	D	4S	16	1.2	1,467	1,449	184	98	2			15	18	19	47	29	5	31	0.31	46.3
WH	D	UT	7		645	645	82	66	13	[illegible]	[illegible]	44	[illegible]	[illegible]	45	24	6	39	0.38	16.6
WH	**Totals**		41	2.5	9,501	9,263	1,176	30	36	30	4	7	4	9	80	33	7	79	0.62	117.7
RA	D	UT	7		15	15	2	10				56	31	13		13	5	14	0.26	1.1
RA	D	2S	20	7.4	44	40	5			00			100			30	15	250	2.06	.2
RA	D	4S	5		11	11			10				100			30	9	70	0.83	.2
RA	D	4S	68		138	138	[illegible]	100					76	1	23	32	5	37	0.37	3.7
RA	**Totals**		1	1.5	208	[illegible]	[illegible]	75	6	20		4	79	2	15	28	6	40	0.43	5.2
Totals				3.7	[illegible]	22,869	[illegible]	[illegible]	[illegible]	26	2	5	6	14	74	32	7	76	0.66	300.3

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TC PSTATS

PROJECT STATISTICS

PROJECT **UPPERSAL**

DATE 6/28/2016

TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
11N	08	24	UPPERSAL	00U1	THR	127.00	100	511	S	W
11N	08W	24	UPPERSAL	ROW4						

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	100	511	5.1		
CRUISE	53	304	5.7	20,238	1.5
DBH COUNT					
REFOREST					
COUNT	44	206	4.7		
BLANKS	3				
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	199	92.2	15.9	70	31.9	127.0	14,040	13,402	3,928	3,929
WHEMLOCK	92	62.9	14.2	74	18.4	69.[illegible]	9,501	9,263	2,403	2,404
R ALDER	13	4.3	10.8	47	0.8	2.[illegible]	208	205	62	62
TOTAL	*304*	*159.4*	*15.1*	*71*	*51.1*	*198.9*	*23,749*	*22,869*	*6,394*	*6,396*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SA[illegible] ERROR

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
SAMPLE TREES								
DOUG FIR	55.5	3.9	154	[illegible]	167			
WHEMLOCK	61.0	6.4	193	[illegible]	219			
R ALDER	161.5	46.6	28	52	77			
TOTAL	*62.5*	*3.6*	*1[illegible]*	*169*	*1[illegible]*	*156*	*39*	*17*

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF TREES REQ. 5	10	INF. POP. 15
SAMPLE TREES - CF								
DOUG FIR	52.8	[illegible].7	[illegible]	[illegible]	49			
WHEMLOCK	56.0	[illegible].9	51	54	57			
R ALDER	148.5	[illegible]	9	15	22			
TOTAL	*57.4*	*3.[illegible]*	*4[illegible]*	*48*	*49*	*132*	*33*	*15*

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
TREES/ACRE								
DOUG FIR	72.2	7.2	86	92	99			
WHEMLOCK	150.9	15.1	53	63	72			
R ALDER	702.0	70.1	1	4	7			
TOTAL	*58.4*	*5.8*	*150*	*159*	*169*	*136*	*34*	*15*

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
BASAL AREA/ACRE								
DOUG FIR	67.6	6.8	118	127	136			
WHEMLOCK	151.4	15.1	59	69	80			
R ALDER	660.3	66.0	1	3	5			
TOTAL	*46.6*	*4.7*	*190*	*199*	*208*	*87*	*22*	*10*

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
NET BF/ACRE								
DOUG FIR	65.9	6.6	12,519	13,402	14,284			
WHEMLOCK	162.9	16.3	7,755	9,263	10,770			
R ALDER	614.6	61.4	79	205	331			
TOTAL	*57.0*	*5.7*	*21,566*	*22,869*	*24,173*	*130*	*32*	*14*

CL 68.1 SD: 1.0

	COEFF VAR.%	S.E.%	LOW	AVG	HIGH	# OF PLOTS REQ. 5	10	INF. POP. 15
NET CUFT FT/ACRE								
DOUG FIR	66.7	6.7	3,667	3,929	4,191			
WHEMLOCK	158.3	15.8	2,024	2,404	2,784			

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TC PSTATS

PROJECT STATISTICS

PROJECT **UPPERSAL**

PAGE **2**
DATE 6/28/2016

TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt
11N	08	24	UPPERSAL	00U1	THR	127.00	100	511	S	W
11N	08W	24	UPPERSAL	ROW4						

CL 68.1	COEFF		**NET CUFT FT/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.00	VAR.	S.E.%	LOW	AVG	HIGH	5	10	15
R ALDER	616.4	61.6	24	62	101			
TOTAL	*51.5*	*5.1*	*6,066*	*6,396*	*6,725*	*106*	*26*	*12*

CL 68.1	COEFF		**V_BAR/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	59.9	6.0	99	106	112			
WHEMLOCK	101.2	10.1	112	134	156			
R ALDER	557.8	55.7	29	75	121			
TOTAL	*73.1*	*7.3*	*108*	*115*	*122*	*213*	*53*	*24*

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T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: UPPERSAL

Date 6/28/2016

Time 12:43:00PM

T11N R08W S24 T00U1

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
11N	08W	24	UPPERSAL	00U1	38.00	33	84	S	W

T11N R08W S24 T00U1

Spp	ST	Sort	Grade	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		HB	2S	6	3.6	934	901	34			100					100	39	14	254	1.62	3.5
DF		HB	3S	19	3.7	2,641	2,543	97		100						100	39	9	115	0.80	22.1
DF		DM	2S	20	8.1	2,893	2,660	101			79	21			17	83	38	13	235	1.68	11.3
DF		DM	3S	34	5.8	4,919	4,633	176	44	56					18	82	38	8	83	0.63	55.6
DF		DM	4S	16	2.1	2,091	2,046	78	93	7			17	33	25	25	28	5	32	0.30	64.7
DF		DM	UT	5		662	662	25	26	30	44		79			21	20	8	43	0.57	15.4
DF	**Totals**			49	4.9	14,139	13,445	511	31	41	24	4	6	5	13	75	33	8	78	0.65	172.6
WH		HB	2S	10	5.5	1,511	1,428	54			[illegible]				16	84	37	12	196	1.38	7.3
WH		HB	3S	22	3.5	2,992	2,887	110		100	[illegible]					100	39	10	134	0.89	21.5
WH		DM	2S	17	7.2	2,494	2,315	88			[illegible]	[illegible]			20	63	34	13	193	1.45	12.0
WH		DM	3S	29	2.7	3,953	3,845	146	38	62	[illegible]				13	87	38	8	91	0.67	42.2
WH		DM	4S	13		1,796	1,796	68	94	6	[illegible]		14	[illegible]	32	36	29	5	32	0.35	56.5
WH		DM	UT	9		1,151	1,151	44	88	[illegible]	[illegible]		24	21		55	25	6	31	0.28	37.1
WH	**Totals**			49	3.4	13,896	13,423	510	[illegible]	40	[illegible]	4	7	4	13	76	32	7	76	0.64	176.6
RA		DM	UT	3		23	23	[illegible]	100				100				9	5	10	0.23	2.3
RA		DM	2S	21	7.4	145	135	5			100			100			30	15	250	2.06	.5
RA		DM	4S	6		38	[illegible]	[illegible]		100				100			30	9	70	0.83	.5
RA		DM	4S	70		456	456	[illegible]	[illegible]					77		23	32	6	37	0.37	12.2
RA	**Totals**			2	1.6	[illegible]	652	25	[illegible]	6	21		4	80		16	28	6	42	0.44	15.7
Type Totals					4.1	28,[illegible]	27,520	[illegible]	32	40	25	4	7	6	13	74	32	7	75	0.64	364.9

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T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: UPPERSAL

Date 6/28/2016

Time 12:43:00PM

T11N R08W S24 T00U2

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
11N	08W	24	UPPERSAL	00U2	27.00	24	65	S	W

T11N R08W S24 T00U2

Spp	ST	Sort	Grad	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
WH		HA	2S	3		853	853	23			100					100	40	13	240	1.38	3.6
WH		HB	2S	33	2.3	7,620	7,445	201			93	7				100	40	13	236	1.40	31.6
WH		HB	3S	23	1.1	5,236	5,181	140		100					11	89	39	9	108	0.67	48.0
WH		DM	2S	4	5.3	834	790	21			50	50				100	40	13	258	1.64	3.1
WH		DM	3S	18	1.3	4,233	4,176	113	52	48				3	9	88	38	8	84	0.59	49.9
WH		DM	4S	14		3,045	3,045	82	100				14	24	6	56	29	5	30	0.28	100.5
WH		DM	UT	5		1,133	1,133	31	52	10	19	20	57			43	26	7	59	0.59	19.1
WH		**Totals**		74	1.4	22,954	22,623	611	26	32	37	[illegible]	5	4	5	86	34	8	88	0.65	255.7
DF		HB	3S	36		2,938	2,938	79		100	[illegible]					100	36	9	120	0.79	24.5
DF		DM	2S	12	7.1	1,120	1,041	28			[illegible]					100	37	12	192	1.43	5.4
DF		DM	3S	30	7.0	2,614	2,431	66		100	[illegible]				10	90	36	9	105	0.83	23.2
DF		DM	4S	19		1,506	1,506	41	100		[illegible]			69	12	19	28	5	31	0.35	48.9
DF		DM	UT	3		208	208	6	100		[illegible]		61	39			18	5	23	0.28	9.0
DF		**Totals**		26	3.1	8,386	8,123	219	[illegible]	66	[illegible]	[illegible]	2	14	5	79	31	7	73	0.64	111.0
Type Totals					1.9	31,340	30,746		24	[illegible]	31	[illegible]	4	6	5	85	33	8	84	0.65	366.7

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T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: UPPERSAL

Date 6/28/2016

Time 12:43:00PM

T11N R08W S24 T00U3

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
11N	08W	24	UPPERSAL	00U3	58.00	42	102	S	W

T11N R08W S24 T00U3

Spp	ST	Sort	Grade	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		HB	3S	3	6.4	613	574	33		100					17	83	36	10	132	1.04	4.4
DF		DM	2S	25	5.7	4,307	4,064	236			100				18	82	38	13	206	1.56	19.8
DF		DM	3S	53	5.8	8,991	8,466	491	21	79			1	1	23	75	37	8	93	0.79	90.9
DF		DM	4S	16		2,549	2,549	148	100				21	31	26	22	26	5	29	0.33	88.0
DF		DM	UT	3		482	482	28	56	44			4	10	29	57	29	6	45	0.61	10.8
DF	**Totals**			95	4.8	16,942	16,135	936	28	47	25		4	6	22	68	32	7	75	0.72	213.7
WH		DM	3S	21	8.3	210	192	11		100						100	40	9	110	0.83	1.7
WH		DM	4S	64	6.6	597	558	32	100				20		28	51	31	5	33	0.31	16.8
WH		DM	UT	15		130	130	8		100			100				16	9	40	0.55	3.2
WH	**Totals**			5	6.1	936	880	51	63	37			[illegible]		18	54	30	6	40	0.38	21.8
Type Totals					4.8	17,879	17,015	987	30	46	24		5	[illegible]	22	68	32	7	72	0.69	235.5

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T TSPCSTGR

Species, Sort Grade - Board Foot Volumes (Type)

Project: UPPERSAL

Date 6/28/2016

Time 12:43:00PM

T11N R08W S24 TROW4

Twp	Rge	Sec	Tract	Type	Acres	Plots	Sample Trees	CuFt	BdFt
11N	08W	24	UPPERSAL	ROW4	4.00	1	54	S	W

T11N R08W S24 TROW4

Spp	ST	Sort	Grade	% Net BdFt	Bd. Ft. per Acre Def%	Gross	Net	Total Net MBF	Percent Net Board Foot Volume: Log Scale Dia. 5-7	8-11	12-15	16+	Log Length 12-20	21-30	31-35	36-99	Average Log Ln Ft	Dia In	Bd Ft	CF/ Lf	Logs Per /Acre
DF		DM	2S	15	4.5	1,415	1,352	5			100				100		32	12	160	1.40	8.4
DF		DM	3S	53	1.7	4,836	4,752	19	12	88					84	16	33	9	98	0.83	48.6
DF		DM	4S	22	2.0	2,070	2,028	8	100				15	29	40	17	27	5	28	0.34	71.8
DF		DM	UT	10		845	845	3	40	35	25		25	30	35	10	27	7	50	0.62	16.9
DF		**Totals**		86	2.1	9,166	8,976	36	33	50	17		6	9	72	13	29	7	62	0.62	145.7
WH		DM	2S	43		486	486	2			100				100		32	14	230	1.74	2.1
WH		DM	3S	28	6.3	338	317	1		100					47	53	36	8	75	1.11	4.2
WH		DM	4S	29		317	317	1	100				13	87			26	5	30	0.32	10.6
WH		**Totals**		11	1.9	1,140	1,119	4	28	28	3		4	25	57	15	29	7	66	0.76	16.9
RA		DM	UT	80		253	253	1	100				17	58	25		21	5	20	0.28	12.7
RA		DM	4S	20		63	63	0	100						100		32	5	30	0.34	2.1
RA		**Totals**		3		317	317	1	100				3	47	40		23	5	21	0.29	14.8
Type Totals					2.0	10,623	10,412	42		46	20		6	12	69	13	29	7	59	0.61	177.4

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PROJECT UPPERSAL

DATE 6/28/2016

TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
11N	08W	24	UPPERSAL	00U1	38.00	33	158	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	33	158	4.8		
CRUISE	18	84	4.7	7,173	1.2
DBH COUNT					
REFOREST COUNT	14	74	5.3		
BLANKS	1				
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	40	83.5	15.5	77	27.8	109.[illegible]	14,139	13,445	3,676	3,676
WHEMLOCK	38	92.5	14.5	74	28.0	106.[illegible]	13,896	13,423	3,627	3,629
R ALDER	6	12.8	11.1	46	2.6	8.5	662	652	198	198
TOTAL	*84*	*188.8*	*14.8*	*73*	*58.5*	*224.[illegible]*	*[illegible]698*	*27,520*	*7,501*	*7,504*

CONFIDENCE LIMITS OF THE SAMPLE

68.1 TIMES OUT OF 100 THE VOLUME WILL BE WITHIN THE SAMPLE ER[illegible]

CL: 68.1 %	COEFF		**SAMPLE TRE[illegible] - BF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AV[illegible]	H[illegible]	5	10	15
DOUG FIR	59.0	9.3	186	[illegible]	225			
WHEMLOCK	44.1	7.2	183	197	212			
R ALDER	134.6	59.9	[illegible]	88	14[illegible]			
TOTAL	*56.8*	*6.2*	*181*	*193*	*[illegible]*	*129*	*32*	*14*

CL: 68.1 %	COEFF		**[illegible]AMPL[illegible]EES - CF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	[illegible]	LOW	A[illegible]	HIGH	5	10	15
DOUG FIR	55.0	8.7	5[illegible]	56	61			
WHEMLOCK	42.5	[illegible]	50	54	58			
R ALDER	124.0	55.[illegible]	11	25	39			
TOTAL	*53.6*	*5.9*	[illegible]	*53*	*56*	*115*	*29*	*13*

CL: 68.1 %	COEFF		**[illegible]TREES/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	[illegible]OW	AVG	HIGH	5	10	15
DOUG FIR	78.5	13.6	72	84	95			
WHEMLOCK	93.0	16.2	78	92	107			
R ALDER	444.8	77.4	3	13	23			
TOTAL	*61.2*	*10.7*	*169*	*189*	*209*	*150*	*37*	*17*

CL: 68.1 %	COEFF		**BASAL AREA/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	68.3	11.9	97	110	123			
WHEMLOCK	82.5	14.4	91	107	122			
R ALDER	399.8	69.5	3	9	14			
TOTAL	*46.0*	*8.0*	*207*	*225*	*243*	*85*	*21*	*9*

CL: 68.1 %	COEFF		**NET BF/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	69.1	12.0	11,830	13,445	15,061			
WHEMLOCK	84.4	14.7	11,453	13,423	15,393			
R ALDER	364.9	63.5	238	652	1,065			
TOTAL	*49.3*	*8.6*	*25,160*	*27,520*	*29,880*	*97*	*24*	*11*

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	67.9	11.8	3,242	3,676	4,110			
WHEMLOCK	85.1	14.8	3,092	3,629	4,167			
R ALDER	366.3	63.7	72	198	324			

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PROJECT **UPPERSAL**

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TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
11N	**08W**	**24**	**UPPERSAL**	**00U1**	38.00	33	158	S	W

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
TOTAL	*48.0*	*8.3*	*6,877*	*7,504*	*8,130*	*92*	*23*	*10*

CL: 68.1 %	COEFF		**V-BAR/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR			108	123	138			
WHEMLOCK			107	126	144			
R ALDER	364.9	63.5	28	76	125			
TOTAL	*189.7*	*33.0*	*112*	*122*	*133*	*1,437*	*359*	*160*

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TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
11N	08W	24	UPPERSAL	00U2	27.00	24	117	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	24	117	4.9		
CRUISE	12	64	5.3	5,241	1.2
DBH COUNT					
REFOREST COUNT	10	52	5.2		
BLANKS	2				
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
WHEMLOCK	44	136.2	14.4	76	40.7	154.5	22,954	22,623	5,613	5,613
DOUG FIR	20	57.9	15.5	64	19.4	76.3	8,386	8,123	2,224	2,225
TOTAL	*64*	*194.1*	*14.8*	*73*	*60.1*	*230.8*	*31,340*	*30,746*	*7,838*	*7,839*

CONFIDENCE LIMITS OF THE SAMPLE

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

CL: 68.1 %	COEFF		**SAMPLE TREES - BF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK	59.9	9.0	219	241	263			
DOUG FIR	37.9	8.7	140	154	[illegible]			
TOTAL	*60.8*	*7.6*	*197*	[illegible]	[illegible]	*148*	*37*	*16*

CL: 68.1 %	COEFF		**SAMPLE TREES -** [illegible]			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK	56.1	8.5	[illegible]	60	[illegible]			
DOUG FIR	38.8	8.9	39	42	46			
TOTAL	*55.7*	[illegible]	*51*	*54*	*58*	*124*	*31*	*14*

CL: 68.1 %	COEFF		**TREES/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	[illegible]%	LOW	AVG	HIGH	5	10	15
WHEMLOCK	114.2	[illegible]	104	136	169			
DOUG FIR	110.5	23.[illegible]	45	58	71			
TOTAL	*60.1*	*12.5*	[illegible]	*194*	*218*	*151*	*38*	*17*

CL: 68.1 %	COEFF		**BASAL AREA/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK	114.8	23.9	118	155	191			
DOUG FIR	111.6	23.2	59	76	94			
TOTAL	*56.2*	*11.7*	*204*	*231*	*258*	*131*	*33*	*15*

CL: 68.1 %	COEFF		**NET BF/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK	118.0	24.6	17,062	22,623	28,184			
DOUG FIR	111.8	23.3	6,231	8,123	10,015			
TOTAL	*69.3*	*14.4*	*26,308*	*30,746*	*35,184*	*200*	*50*	*22*

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
WHEMLOCK	117.2	24.4	4,243	5,613	6,984			
DOUG FIR	111.9	23.3	1,707	2,225	2,744			
TOTAL	*65.4*	*13.6*	*6,770*	*7,839*	*8,907*	*178*	*45*	*20*

CL: 68.1 %	COEFF		**V-BAR/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
WHEMLOCK	62.9	13.1	110	146	182			
DOUG FIR	33.7	7.0	82	106	131			
TOTAL	*199.8*	*41.6*	*114*	*133*	*152*	*1,663*	*416*	*185*

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TC TSTATS

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PROJECT UPPERSAL

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TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
11N	08W	24	UPPERSAL	00U3	58.00	42	182	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	42	182	4.3		
CRUISE	22	102	4.6	7,367	1.4
DBH COUNT					
REFOREST					
COUNT	20	80	4.0		
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	98	114.2	16.2	69	40.7	163.8	16,942	16,135	4,976	4,976
WHEMLOCK	4	12.9	11.1	72	2.6	8.6	936	880	247	247
TOTAL	*102*	*127.0*	*15.8*	*69*	*43.4*	*172.4*	*17,879*	*17,015*	*5,223*	*5,223*

CONFIDENCE LIMITS OF THE SAMPLE

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

CL: 68.1 %	COEFF		**SAMPLE TREES - BF**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	44.8	4.5	160	167	175			
WHEMLOCK	49.8	28.5	55	78	[illegible]			
TOTAL	*46.3*	*4.6*	*156*	[illegible]	[illegible]	*85*	*21*	*9*

CL: 68.1 %	COEFF		**SAMPLE TREES -**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	43.9	4.4	[illegible]	52	[illegible]			
WHEMLOCK	53.4	30.5	15	22	29			
TOTAL	*45.6*	*4.5*	*48*	*51*	*53*	*83*	*21*	*9*

CL: 68.1 %	COEFF		**TREES/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	44.9	[illegible]	106	114	122			
WHEMLOCK	285.8	44.[illegible]	[illegible]	13	19			
TOTAL	*49.8*	*7.7*	[illegible]	*127*	*137*	*99*	*25*	*11*

CL: 68.1 %	COEFF		**BASAL AREA/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	38.8	6.0	154	164	174			
WHEMLOCK	282.9	43.6	5	9	12			
TOTAL	*39.5*	*6.1*	*162*	*172*	*183*	*62*	*16*	*7*

CL: 68.1 %	COEFF		**NET BF/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	40.3	6.2	15,133	16,135	17,137			
WHEMLOCK	284.1	43.8	494	880	1,265			
TOTAL	*40.5*	*6.2*	*15,952*	*17,015*	*18,078*	*66*	*16*	*7*

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	39.8	6.1	4,671	4,976	5,281			
WHEMLOCK	283.3	43.7	139	247	355			
TOTAL	*40.1*	*6.2*	*4,901*	*5,223*	*5,546*	*64*	*16*	*7*

CL: 68.1 %	COEFF		**V-BAR/ACRE**			# OF PLOTS REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR			92	99	105			
WHEMLOCK	107.9	16.6	58	103	148			
TOTAL	*165.0*	*25.4*	*93*	*99*	*105*	*1,087*	*272*	*121*

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PROJECT **UPPERSAL**

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TWP	RGE	SECT	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt
11N	**08W**	**24**	**UPPERSAL**	**ROW4**	4.00	1	54	S	W

	PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES
TOTAL	1	54	54.0		
CRUISE	1	54	54.0	456	11.8
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	41	86.6	14.6	56	26.4	101.0	9,166	8,976	2,652	2,652
WHEMLOCK	6	12.7	14.7	48	3.9	15.0	1,140	1,119	376	376
R ALDER	7	14.8	8.3	53	1.9	5.6	317	317	97	97
TOTAL	*54*	*114.0*	*14.0*	*55*	*32.5*	*121.6*	*10,623*	*10,412*	*3,125*	*3,125*

CONFIDENCE LIMITS OF THE SAMPLE

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

CL: 68.1 %	COEFF		**SAMPLE TREES - BF**			TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	62.7	9.8	94	10[illegible]	[illegible]			
WHEMLOCK	105.3	46.9	47	[illegible]	[illegible]			
R ALDER	42.0	17.1	18	[illegible]	25			
TOTAL	*75.7*	*10.3*	*82*	*91*	*101*	*229*	*57*	*25*

CL: 68.1 %	COEFF		**SAMPLE TREES**			# OF TREES REQ.		INF. POP.
SD: 1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15
DOUG FIR	62.2	9.[illegible]	28	31	34			
WHEMLOCK	102.1	[illegible]	[illegible]	[illegible]	43			
R ALDER	54.0	22.0	[illegible]	[illegible]	8			
TOTAL	*75.5*	[illegible]	*25*	*27*	*30*	*227*	*57*	*25*

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TC PSPCTLTCM

Species Summary - Trees, Logs, Tons, CCF, MBF

T11N R08W S24 Ty00U	38.0
T11N R08W S24 Ty00U	27.0
T11N R08W S24 TyROW	4.0

Project UPPERSAL
Acres 127.00

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Species	S T	Total Trees	Total Logs	Total Tons	Net Cubic Ft/ Tree	Net Cubic Ft/ Log	CF/ LF	Total CCF Gross	Total CCF Net	Total MBF Gross	Total MBF Net
DOUG FIR		11,706	22,536	14,219	42.63	22.14	0.68	4,989	4,990	1,783	1,702
WHEMLOCK		7,987	14,945	9,768	38.23	20.43	0.63	3,052	3,053	1,207	1,176
R ALDER		545	655	218	14.52	12.08	0.42	79	79	26	26
Totals		20,238	38,136	24,204	40.14	21.30	0.66	8,121	8,122	3,016	2,904

Wood Type Species	Total Trees	Total Logs	Total Tons	Net Cubic Ft/ Tree	Net Cubic Ft/ Log	CF/ LF	Total CCF Gross	Total CCF Net	Total MBF Gross	Total MBF Net
C	19,693	37,481	23,987	40.84	21.46	0.66	8,042	8,043	2,990	2,878
H	545	655	218	14.52	12.08	0.42	79	79	26	26
Totals	20,238	38,136	24,204	40.14	21.30	0.66	8,121	8,122	3,016	2,904

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