



"SICUT ARBORIBUS IN FORESTIS"

Timber Sale Appraisal Cat's Meow

Sale FG-341-2016-49-

District: Forest Grove

Date: January 20, 2016

Cost Summary

	Conifer	Hardwood	Total
Gross Timber Sale Value	\$1,767,801.96	\$0.00	\$1,767,801.96
		Project Work:	\$0.00
		Advertised Value:	\$1,767,801.96



"STAND FOR AN INDUSTRY"

Timber Sale Appraisal Cat's Meow

Sale FG-341-2016-49-

District: Forest Grove

Date: January 20, 2016

Timber Description

Location: Portions of Sections 23 and 24, T2N, R5W, W.M., Washington County, Oregon.

Stand Stocking: 20%

Specie Name	AvgDBH	Amortization (%)	Recovery (%)
Douglas - Fir	18	0	98

Volume by Grade	2S	3S	4S	Total
Douglas - Fir	2,376	1,442	258	4,076
Total	2,376	1,442	258	4,076

Comments: Pond Values Used: 4th Quarter Calendar Year 2015.

Western Hemlock and Other Conifers Stumpage Price = Pond Value minus Logging Cost:
 $\$266.46 = \$430/\text{MBF} - \$163.54/\text{MBF}$

Western redcedar and Other Cedars Stumpage Price = Pond Value minus Logging Cost:
 $\$986.46/\text{MBF} = \$1,150/\text{MBF} - \$163.54/\text{MBF}$

Red Alder and Other Hardwoods Stumpage Price = Pond Value minus Logging Cost:
 $\$481.46/\text{MBF} = \$645/\text{MBF} - \$163.54/\text{MBF}$

SCALING COST ALLOWANCE = \$5.00/MBF

FUEL COST ALLOWANCE = \$3.00/Gallon

HAULING COST ALLOWANCE

Hauling costs equivalent to \$780 daily truck cost.

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

Brand and Paint: $4,076 \text{ MBF} \times \$2/\text{MBF} = \$8,152$

Non Project Road: $950 \text{ feet (9.5 Stations)} \times \$100/\text{Station} = \$950$

TOTAL Other Costs (with Profit & Risk to be added) = \$9,102

Other Costs (No Profit & Risk added):

Block/Waterbar Roads/Skid Trails: $15 \text{ hrs} \times \$150/\text{hour} = \$2,250$

Pile Landing Slash/Sort Firewood: $20 \text{ hrs} \times \$150/\text{hour} = \$3,000$

Equipment Cleaning: $3 \times \$1,000/\text{Piece} = \$3,000$

Slash Piling : $20 \text{ acres at } \$150/\text{acre} = \$3,000$

TOTAL Other Costs (No Profit & Risk added) = \$11,250

ROAD MAINTENANCE

Move-in: \$4,000

General Road Maintenance: $3.5 \text{ miles} \times \$1,200/\text{mile} = \$4,200$

TOTAL Road Maintenance: $\$8,200/4,076 \text{ MBF} = \$2.01/\text{MBF}$



"SUSTAINABLE FORESTRY"

Timber Sale Appraisal Cat's Meow

Sale FG-341-2016-49-

District: Forest Grove

Date: January 20, 2016

Logging Conditions

Combination#: 1	Douglas - Fir	95.00%
Logging System:	Shovel	Process: Stroke Delimber
yarding distance:	Short (400 ft)	downhill yarding: No
tree size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF	
loads / day:	10	bd. ft / load: 4600
cost / mbf:	\$68.96	
machines:	Stroke Delimber (B)	

Combination#: 2	Douglas - Fir	5.00%
Logging System:	Cable: Small Tower <=40	Process: Stroke Delimber
yarding distance:	Short (400 ft)	downhill yarding: No
tree size:	Mature / Regen Cut (900 Bft/tree), 3-5 logs/MBF	
loads / day:	8	bd. ft / load: 4600
cost / mbf:	\$152.17	
machines:	Log Loader (A) Stroke Delimber (A) Tower Yarder (Small)	



"SUSTAINABLE FORESTRY"

Timber Sale Appraisal Cat's Meow

Sale FG-341-2016-49-

District: Forest Grove

Date: January 20, 2016

Logging Costs

Operating Seasons: 1.00	Profit Risk: 10%
Project Costs: \$0.00	Other Costs (P/R): \$9,102.00
Slash Disposal: \$0.00	Other Costs: \$11,250.00

Miles of Road

Road Maintenance: \$2.01

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	4.2



"SUSTAINABLE FORESTRY"

Timber Sale Appraisal
Cat's Meow

Sale FG-341-2016-49-

District: Forest Grove

Date: January 20, 2016

Logging Costs Breakdown

Logging	Road Maint	Fire Protect	Hauling	Other P/R appl	Profit & Risk	Slash Disposal	Scaling	Other	Total
Douglas - Fir									
\$73.12	\$2.05	\$1.08	\$63.14	\$2.23	\$14.16	\$0.00	\$5.00	\$2.76	\$163.54

Specie	Amortization	Pond Value	Stumpage	Amortized
Douglas - Fir	\$0.00	\$597.25	\$433.71	\$0.00



Timber Sale Appraisal
Cat's Meow

Sale FG-341-2016-49-

District: Forest Grove

Date: January 20, 2016

Summary

Amortized

Specie	MBF	Value	Total
Douglas - Fir	0	\$0.00	\$0.00

Unamortized

Specie	MBF	Value	Total
Douglas - Fir	4,076	\$433.71	\$1,767,801.96

Gross Timber Sale Value

Recovery: \$1,767,801.96

Prepared By: Eric Foucht

Phone: 503-359-7473

TIMBER SALE SUMMARY
CAT'S MEOW
Contract No. 341-16-49

1. **Location:** Portions of Sections 23 & 24, T2N, R5W, W.M., Washington County, Oregon.
2. **Type of Sale:** This timber sale is an 86 acre Modified Clearcut. The timber will be sold on a recovery basis at a sealed bid auction.
3. **Revenue Distribution:** 100% BOF, Washington County
4. **Sale Acreage:** Acres are net of stream buffers and road prisms. Acreage was determined using ESRI ArcMap GIS software.
5. **Cruise:** The Timber Sale was cruised by ODF Cruisers in November of 2015. For more information see Cruise Report.
6. **Timber Description:** The Timber Sale Area is a well-stocked 74 year old Douglas-fir stand. The average Douglas-fir DBH is 18". The estimated average net per acre Douglas-fir volume is 48.4 MBF.

7. **Volume Summary**

SPECIES		2 SAW	3 SAW	4 SAW	TOTAL
Douglas-fir	Cruise Volume	2,424	1,471	263	4,158
	Hidden D&B (2%)	(48)	(29)	(5)	(82)
	NET TOTAL	2,376	1,442	258	4,076
	% of Total	58	35	6	

8. **Topography and Logging Method:** Slopes within the sale areas range from 10% to 45% and are variable in aspect. The Timber Sale Area is 95% ground-based yarding. The average horizontal tractor skid trail length is approximately 490 feet and the maximum is approximately 830 feet. The average cable corridor length is 270 feet and the maximum is 390 feet. To facilitate yarding of a portion of the east side of the sale area, a "Non Project" road will probably be necessary.
9. **Access:** All access to the Timber Sale Area is on surfaced all-weather roads. From Forest Grove travel west on Highway 8 to its intersection with Highway 6. Proceed west onto Highway 6 for approximately 3 miles, then turn right onto Timber Road. Go north on Timber Road about 2 miles, turn right onto Wildcat Mountain Road. Proceed through the yellow gate and continue on Wildcat Mountain Road for approximately 2.4 miles and turn right on the spur heading south. Continue south for about mile to the north end of the timber sale area.

10. **Projects:** None

**CRUISE REPORT
CAT'S MEOW
341-16-49**

1. LOCATION: Portions of Sections 23 & 24, T2N, R5W, W.M., Washington County, Oregon.

2. CRUISE DESIGN:

The cruise design assumed a Coefficient of Variation of 50%, an average stand diameter of 17 inches, a desired sampling error of 10% at a 68% confidence level, and a minimum sample size of 100 grade trees. Pre-cruise plots indicated that approximately 6 trees per plot could be realized with a 40 BAF prism.

3. SAMPLING METHOD:

The Sale Area was cruised in November, 2015 with 25 variable radius grade plots using a 40 BAF prism. Plots were laid out on a 4 chain x 5 chain grid. Plots falling on or near existing roads or no-harvest areas were offset 1 chain.

4. CRUISE RESULTS

142 trees were measured and graded producing a cumulative sampling error of 7.8% on the basal area and 8.3% on the board foot volume.

5. TREE MEASUREMENT AND GRADING:

All sample trees were measured and graded following Columbia River Log Scale grade rules and favoring 40 foot segments.

a) **Height Standards:**

Total tree heights were measured to the nearest foot. Bole heights were calculated to a six inch top.

b) **Diameter Standards:** Diameters were measured outside bark at breast height to the nearest inch.

c) **Form Factors** were measured for each grade tree using a form point of 16 feet.

5. DATA PROCESSING

a) **Volumes and Statistics**, Volume estimates and sampling statistics were derived from Super Ace 2008 cruise software.

b) **Deductions:** Two percent of the volume was subtracted from the computed volumes to account for hidden defect and breakage.

6. CRUISERS: The sale was cruised by ODF cruisers Joe Koch and Mark Savage.

Prepared by: Joe Koch 12/02/2015

Reviewed by: Eric Foucht 12/03/2015

TC PSTATS		PROJECT STATISTICS							PAGE	1	
		PROJECT CATRAW							DATE	11/24/2015	
TWP	RGE	SC	TRACT	TYPE		ACRES	PLOTS	TREES	CuFt	BdFt	
03N	05	23	00A1	00MC		86.00	25	142	S	W	
			PLOTS	TREES	TREES PER PLOT	ESTIMATED TOTAL TREES	PERCENT SAMPLE TREES				
TOTAL			25	142	5.7						
CRUISE			25	142	5.7	10,779	1.3				
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-L		3	.5	41.7	162	0.7	4.8	1,350	1,174	245	
DOUG FIR-T		138	124.4	18.0	125	52.0	220.8	48,739	48,346	10,258	
NOB FIR-L		1	.5	25.0	160	0.3	1.6	507	507	95	
TOTAL		142	125.3	18.2	126	53.2	227.2	50,597	50,027	10,598	
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-L		22.9	15.8	1,955	2,323	2,691					
DOUG FIR-T		69.5	5.9	575	611	647					
NOB FIR-L											
TOTAL		75.6	6.3	609	650	691	228	57	25		
CL	68.1	COEFF	SAMPLE TREES - CF			# OF TREES REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR-L		12.8	8.9	442	485	528					
DOUG FIR-T		64.8	5.5	120	127	134					
NOB FIR-L											
TOTAL		71.5	6.0	127	135	143	204	51	23		
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-L		367.7	75.0	0	1	1					
DOUG FIR-T		49.7	10.1	112	124	137					
NOB FIR-L		500.0	102.0	0		1					
TOTAL		48.1	9.8	113	125	138	96	24	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-L		366.4	74.7	1	5	8					
DOUG FIR-T		38.5	7.8	203	221	238					
NOB FIR-L		500.0	102.0	2		3					
TOTAL		33.2	6.8	212	227	243	46	11	5		
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-L		369.3	75.3	290	1,174	2,058					
DOUG FIR-T		40.6	8.3	44,349	48,346	52,344					
NOB FIR-L		500.0	102.0	507		1,024					
TOTAL		35.1	7.2	46,442	50,027	53,613	51	13	6		
CL	68.1	COEFF	NET CUFT FT/ACRE			# OF PLOTS REQ.		INF. POP.			
SD:	1.0	VAR.%	S.E.%	LOW	AVG	HIGH	5	10	15		
DOUG FIR-L		368.3	75.1	61	245	430					
DOUG FIR-T		39.8	8.1	9,426	10,258	11,091					

PROJECT STATISTICS
PROJECT CATRAW

TWP	RGE	SC	TRACT	TYPE	ACRES	PLOTS	TREES	CuFt	BdFt	
03N	05	23	00AI	00MC	86.00	25	142	S	W	
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
NOB FIR-L			500.0	102.0		95	191			
TOTAL			<i>34.3</i>	<i>7.0</i>	<i>9,858</i>	<i>10,598</i>	<i>11,339</i>	<i>49</i>	<i>12</i>	<i>5</i>

Species, Sort Grade - Board Foot Volumes (Project)

T03N R05W S23 Ty00MC 86.00	Project: CATRAW Acres 86.00	Page 1 Date 11/24/2015 Time 3:11:07PM
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S Spp	So T	Gr rt ad	% Net BdFt	Bd. Ft. per Acre			Total Net MBF	Percent of Net Board Foot Volume								Average Log				Logs Per /Acre	
								Log Scale Dia.				Log Length				Ln Ft	Dia In	Bd Ft	CF/ Lf		
								4-5	6-11	12-16	17+	12-20	21-30	31-35	36-99						
DF	T	CU															5	10		0.00	4.6
DF	T	2M	58	.9	28,448	28,182	2,424			52	48	0	1	0	99		40	16	387	1.92	72.9
DF	T	3M	35	.7	17,232	17,104	1,471		77	23			2	3	96		39	9	115	0.68	149.1
DF	T	4M	7		3,060	3,060	263		100			25	44	14	17		22	6	30	0.35	103.6
DF	Totals		97	.8	48,739	48,346	4,158		34	38	28	2	4	2	92		33	9	146	0.93	330.2
DF	L	2M	92	13.7	1,257	1,084	93			6	94	12		14	74		36	24	800	4.51	1.4
DF	L	3M	6		72	72	6		16	84		16			84		30	13	215	1.69	.3
DF	L	4M	2	15.7	22	19	2		100			53	47				22	9	55	0.97	.3
DF	Totals		2	13.1	1,350	1,174	101		3	10	87	13	1	13	74		33	20	579	3.69	2.0
NF	L	2M	88		451	451	39			37	63				100		40	17	480	2.08	.9
NF	L	3M	11		52	52	4		100						100		38	9	110	0.83	.5
NF	L	4M	1		5	5	0		100			100					12	6	10	0.32	.5
NF	Totals		1		507	507	44		11	33	56	1		99			33	12	270	1.55	1.9
Totals				1.1	50,597	50,027	4,302		33	38	30	2	4	2	92		33	10	150	0.95	334.1

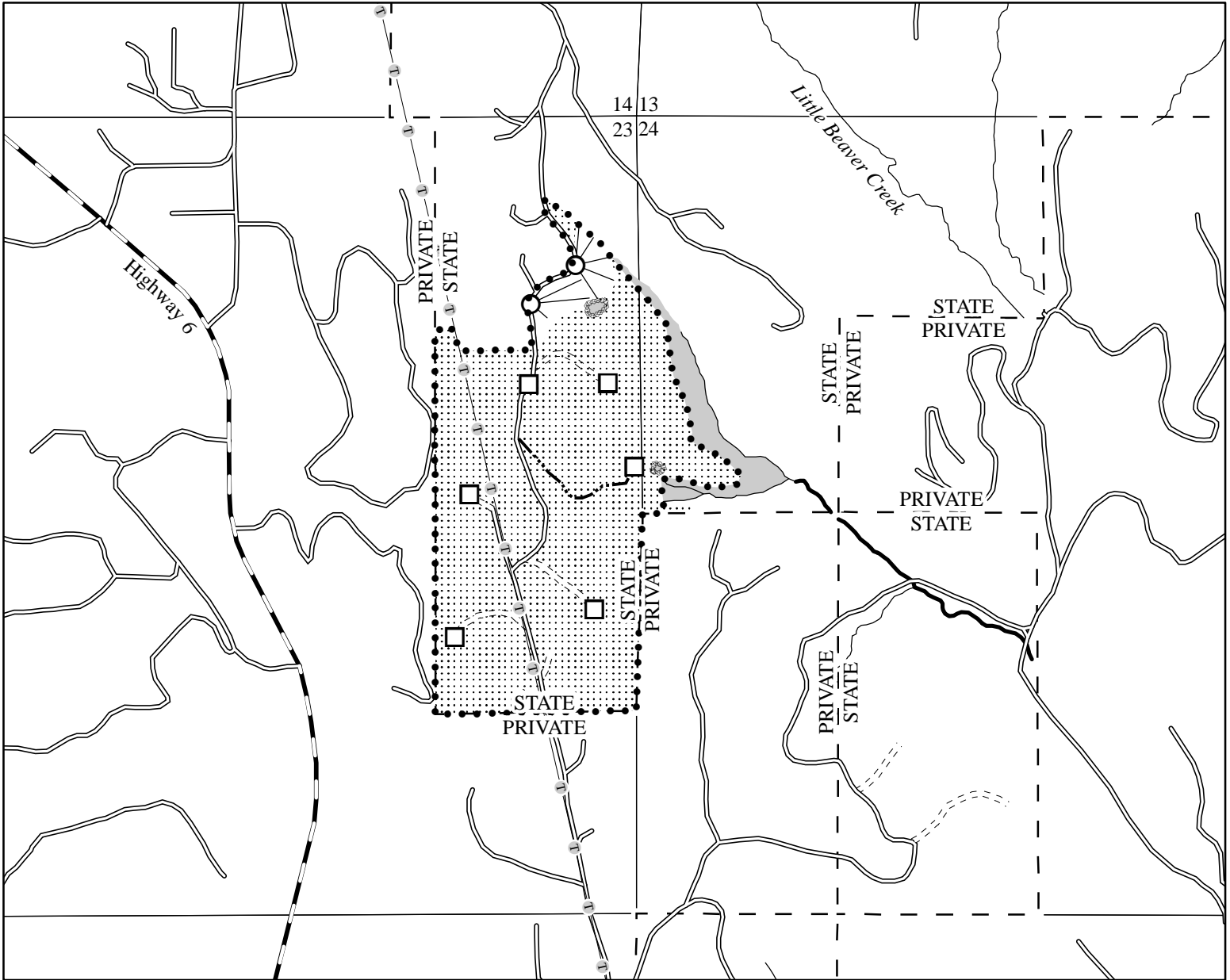
Log Stock Table - MBF

T03N R05W S23 Ty00MC 86.00

Project: CATRAW
Acres 86.00

Spp	S T	So Gr rt de	Log Len	Gross MBF	Def %	Net MBF	% Spe	Net Volume by Scaling Diameter in Inches											
								2-3	4-5	6-7	8-9	10-11	12-13	14-15	16-19	20-23	24-29	30-39	40+
DF		Totals		116	13.1	101	2.3				1		2		5	9	13	59	11
NF	L	2M	40	39		39	88.9								15	24			
NF	L	3M	38	4		4	10.2				4								
NF	L	4M	12	0		0	.9				0								
NF		Totals		44		44	1.0				0	4			15	24			
Total		All Species		4,351	1.1	4,302	100.0				458	611	332	680	632	1008	447	123	11

TC PSTNDSUM		Stand Table Summary										Page 1			
												Date: 11/24/2015			
T03N R05W S23 Ty00MC 86.00		Project CATRAW										Time: 3:11:06PM			
		Acres 86.00										Grown Year:			
S Spec T	DBH	Sample Trees	Tot		Trees/ Acre	BA/ Acre	Logs Acre	Average Log		Tons/ Acre	Net Cu.Ft. Acre	Net Bd.Ft. Acre	Totals		
			FF 16'	Av Ht				Net Cu.Ft.	Net Bd.Ft.				Tons	Cunits	MBF
DFT	10	4	89	91	11.734	6.40	17.60	9.9	48.3	4.99	175	851	429	151	73
DFT	11	2	90	117	4.849	3.20	9.70	11.3	55.0	3.13	110	533	269	94	46
DFT	12	8	88	100	16.297	12.80	32.59	12.2	52.5	11.30	397	1,711	972	341	147
DFT	13	6	88	118	10.415	9.60	22.57	16.1	76.2	10.38	364	1,718	892	313	148
DFT	14	7	89	109	10.477	11.20	20.95	19.2	85.7	11.48	403	1,796	987	346	154
DFT	15	3	87	113	3.911	4.80	9.13	19.6	82.9	5.11	179	756	439	154	65
DFT	16	2	89	137	2.292	3.20	6.88	21.7	98.3	4.26	149	676	366	128	58
DFT	17	11	88	138	11.166	17.60	32.48	24.8	110.9	23.00	807	3,603	1,978	694	310
DFT	18	6	87	132	5.432	9.60	16.30	26.6	110.0	12.38	434	1,793	1,065	374	154
DFT	19	9	88	134	7.314	14.40	21.94	30.1	130.7	18.83	661	2,869	1,620	568	247
DFT	20	8	87	131	5.867	12.80	16.87	34.1	149.6	16.40	576	2,523	1,411	495	217
DFT	21	12	89	146	7.982	19.20	25.94	37.6	183.1	27.78	975	4,750	2,389	838	408
DFT	22	5	88	152	3.031	8.00	9.70	42.2	208.1	11.68	410	2,018	1,004	352	174
DFT	23	9	89	143	4.991	14.40	15.53	46.0	210.0	20.35	714	3,261	1,750	614	280
DFT	24	8	88	155	4.074	12.80	13.75	48.7	233.0	19.09	670	3,203	1,641	576	275
DFT	25	10	89	154	4.694	16.00	16.43	51.6	252.0	24.16	848	4,140	2,077	729	356
DFT	26	2	88	156	.868	3.20	3.04	57.3	290.0	4.96	174	881	427	150	76
DFT	27	8	88	154	3.219	12.80	12.07	54.5	281.3	18.76	658	3,396	1,614	566	292
DFT	28	6	89	159	2.245	9.60	8.98	59.1	310.4	15.13	531	2,788	1,301	457	240
DFT	29	3	90	159	1.046	4.80	4.19	63.7	333.3	7.60	267	1,395	654	229	120
DFT	31	4	85	156	1.221	6.40	4.88	69.2	338.8	9.63	338	1,655	828	291	142
DFT	33	1	84	148	.269	1.60	.81	101.4	493.3	2.34	82	399	201	70	34
DFT	34	2	84	165	.508	3.20	1.52	111.9	540.0	4.86	170	822	418	147	71
DFT	35	1	85	164	.239	1.60	.96	90.8	460.0	2.48	87	441	213	75	38
DFT	37	1	83	153	.214	1.60	.86	94.5	430.0	2.31	81	369	199	70	32
DFT	Totals	138	88	126	124.357	220.80	325.66	31.5	148.5	292.36	10,258	48,346	25,143	8,822	4,158
DFL	41	1	82	155	.175	1.60	.70	106.3	455.0	2.11	74	318	182	64	27
DFL	42	2	82	166	.333	3.20	1.33	128.7	643.8	4.88	171	856	420	147	74
DFL	Totals	3	82	162	.507	4.80	2.03	121.0	578.8	6.99	245	1,174	601	211	101
NFL	25	1	90	160	.469	1.60	1.88	50.4	270.0	2.27	95	507	195	81	44
NFL	Totals	1	90	160	.469	1.60	1.88	50.4	270.0	2.27	95	507	195	81	44
Totals		142	88	126	125.333	227.20	329.56	32.2	151.8	301.63	10,598	50,027	25,940	9,115	4,302



Legend

- Timber Sale Boundary
- Paved Road
- Surfacd Road
- - - - Unsurfaced Road
- · - · - Non Project Road
- Type F Stream
- Type N Stream
- ▨ Stream Buffer Boundary
- ▨ Stream Buffer
- Cable Landing
- Tractor Landing
- ▨ Tractor Yarding Area
- ▨ Cable Yarding Area
- ODF Property Boundary
- Electric Transmission Lines
- Section Line

LOGGING PLAN

FOR TIMBER SALE CONTRACT # 341-16-49
 CAT'S MEOW
 PORTIONS OF SECTIONS 23 & 24, T2N, R5W, W.M.
 WASHINGTON COUNTY, OREGON

Forest Grove District GIS
 December, 2015

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



APPROXIMATE NET ACRES

TRACTOR	CABLE
82	4

1:12,000

1 inch = 1,000 feet

