

# Bull Trout Spawning Surveys

## Indian Creek (Rimrock Lk.)

Date	Definite Redds	Probable Redds	Total Redds	Possible (False) Redds	Fish observed
9/5-6/95	107	+ 4	= 111	7	109
9/22-23/95	71	+ 2	= 73	2	28
10/2/95	15	+ 2	= 17	0	1
Season Total	193	+ 8	= 201	9	138

## S. F. Tieton River (Rimrock Lk.)

Date	Definite Redds	Probable Redds	Total Redds	Possible (False) Redds	Fish observed
8/31/95	6	+ 0	= 6	0	45
9/18/95	72	+ 4	= 76	6	4
* Bear Creek (S.F.)					
8/31/95	7	+ 0	= 7	0	20
9/14/95	5	+ 1	= 6	0	2
* Spruce Creek					
9/14/95	0	+ 0	= 0	1	0
Season Total	90	+ 5	= 95	7	
* S.F. Tieton R. Tribs.					

Rimrock Total	Definite	Probable	Total	Possible (False)
	283	+ 13	= 296	16

1  
9  
9  
5

# Bull Trout Spawning Surveys

## Deep Creek (Bumping LK)

Date	Definite Redds	+	Probable Redds	=	Total Redds	Possible (False) Redds	Fish observed
8/30/95	54	+	2	=	56	2	64
9/19/95	42	+	3	=	45	1	ϕ
Season Total	96	+	5	=	101	3	

## Box Canyon Creek (Kachess LK)

Date	Definite Redds	+	Probable Redds	=	Total Redds	Possible (False) Redds	Fish observed
9/15/95	ϕ	+	ϕ	=	ϕ	ϕ	1
10/4/95	3	+	1	=	4	1	ϕ
Season Total	3	+	1	=	4	1	

## Gold Creek (Keechelus LK)

Date	Definite Redds	+	Probable Redds	=	Total Redds	Possible (False) Redds	Fish observed
9/22/95	8	+	5	=	13	3	7
10/5/95	ϕ	+	ϕ	=	ϕ	ϕ	ϕ
Season Total	8	+	5	=	13	7	

# Bull Trout Spawning Surveys

## Rattlesnake Creek

Date	Definite Redds	+	Probable Redds	=	Total Redds	Possible (False) Redds	Fish Observed
9/11-13/95	23	+	∅	=	23	∅	11
* Hindoo Creek							
9/11-13/95	∅	+	∅	=	∅	∅	∅
* Dog Creek							
9/11-13/95	3	+	∅	=	3	1	1
Season Total	26	+	∅	=	26	1	
* Rattlesnake Cr. Tribs.							

## Ahtanum Creek

Date	Definite Redds	+	Probable Redds	=	Total Redds	Possible (False) Redds	Fish Observed
9/14/95	∅	+	∅	=	∅	∅	2
9/29/95	2	+	∅	=	2	∅	∅
* Shellneck Creek							
9/14/95	∅	+	∅	=	∅	∅	∅
9/29/95	4	+	∅	=	4	∅	2
Season Total	6	+	∅	=	6	∅	

1  
9  
9  
6

7/14/95 N.F. Antanum Creek

Shellmeck Creek 0905 - 1045

Dot Redds	Prob Redds	Pos Redds	Fish
0	0	0	0

Saw 5 Fish 4-8"  
probably CT No BNC

Upstream to split channel - open hillside,  
road crosses creek.

Back to vehicle at 1105

Jim Cummins File

8/14/95

N. F. Altatum Creek

From Gray Rock CG to

Shellhead (Approx 1.7 miles)

1145 - 1405

45°F

Def Rdds

BLC

0

2

2 BLC were together  
1-8" + 1-11"

Fish sighted Ct or not I did

13 - 4 - 8"

100's trout fry

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Jim Cummins File

N. = Antanum 9/29/95  
40° F

Gray Rock to Shellrock  
Creek

2 dep Redds 0 BAC

8-10 Ct

1

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Shellrock Cr 9/29/95  
dep Redds BLO  
111 2

5-6 Ct

2

---

Jim Cummins File

Indian Cr.

10/2/95

BLC Redd Count

1050 Hrs

Eric Anderson

H<sub>2</sub>O Temp 43°F

Raining

South Spring

New Redds

Fish

Def. 0

0

Prob. 0

Pos. 0

Stray Fish

0

Old Redds

Fish

Def. III

0

Prob. 0

Pos. 0

10/2/95

Indian Cr. continued

S. Spring to Upper S. Spring

H<sub>2</sub>O Temp 44°F

New Redds

Def. 0

Fish

0

Prob. 0

Pos. 0

Stray Fish. 0

Old Redds

Def. IIII

Fish

0

Prob. 0

Pos. (4 to  $\phi$ ) 1



Indian Cr. continued 10/2/95

Upper S. Spring H<sub>2</sub>O Temp. 43°F

New Redds

Def. 0

Fish

0

Prob. 0

Pos. 0

Stray Fish 0

Old Redds

Def. ~~1~~ 1

Fish

0

Prob. 0

Pos. 0

10/2/95

Indian Cr. continued

Upper S. Spring to Falls

H<sub>2</sub>O Temp. 44° F

New Raddls

Def. 1

Fish

1

Prob. 0

Pos. 0

Stray Fish 0

Old Raddls

Def. |||| |||| |||| ||||  
|||| 1

Fish

0

Prob. (1 Prob. to Def.)

Pos. (3 Pos to Def.)

10/2/95

Indian Cr. continued

end time 1500 Hrs

N. Spring to S. Spring

H<sub>2</sub>O Temp. 45°F

New Redds

Fish

Def IIII

Prob.  $\phi$

Pos.  $\phi$

Stray Fish

Old Redds

Fish

Def. IIII IIII IIII IIII

Prob. IIII IIII IIII

Pos. (2 to  $\phi$ )  
1

Indian Cr. continued 9/23/95 ✓

Upper S. Spring  
H<sub>2</sub>O Temp. 45°F

New Redds

Fish

Det. 1

Prob.

Pos.

Stray Fish

Old Redds

Fish

Det. Nil

Prob.

Pos.

over

Indian Cr. continued 9/22/95 ✓

N. Spring H<sub>2</sub>O Temp. 44°F  
(including Beaver Ponds) end time 1640

New Redds

Def. ~~||||~~ ~~||||~~  
|||

Fish

~~||||~~ |

Prob. 1

Pos. III

Stray Fish II

Old Redds

Def. ~~||||~~ ~~||||~~  
~~||||~~ ||||

Fish

||

Prob. II

Pos.

over

Indian Cr

9/23/95

BLC Redd Count 1330

Eric Anderson H<sub>2</sub>O Temp. 48°F

N. Spring to S. Spring

New Redds

Def. IIII IIII  
IIII I

Fish  
IIII I

Prob. I

Pos. II

Stray Fish

Old Redds

Def. IIII IIII  
IIII III

Fish  
II

Prob.

Pos. (I to Def) I

Indian Cr. continued 9/23/95 ✓

S. Spring H<sub>2</sub>O Temp. 45°F

New Redds

Fish

Def. 1

Prob.

Pos.

Stray Fish

Old Redds

Fish

Def. 11

Prob.

Pos.

Indian Cr. continued 9/23/95

S. Spring to Upper S. Spring.  
H<sub>2</sub>O Temp. 48°F

New Redds

Fish

Def. 11

Prob.

Pos. 1111

Stray Fish

old Redds

Fish

Def. 11

Prob.

Pos. 1



No Count ✓

Indian Cr. \_\_\_\_\_ 9/22/95

BLC Redd Count 0915

Eric Anderson H<sub>2</sub>O Temp. 44°F

Trap → Hwy 12 Bridge  
(New survey section)

New Redds

Fish (BLC)

Def, NI

NI 1

Prob. 11

Pos.

stray Fish (BLC) NI NI NI  
(3 orange tags)

Numerous Kokanee in this section.

Kokanee Redds - ≈ 80+

Kokanee - 200+?

Several BLC above trap in pool,

over →

Indian Cr. continued, 9/22/95

Hwy 12 Bridge to N. Spring

New Redds

Fish

Def. IIII IIII IIII  
IIII IIII IIII I

IIII

Prob. IIII

Pos. II

Stray Fish IIII

Kokanee Redds IIII IIII

Kokanee III III IIII

Old Redds

Fish

Def. IIII IIII IIII IIII  
IIII IIII IIII IIII

II

Prob. (1 to Pos, 2 to Def) II

Pos. III

S.F. Tieton R.  
BLC Redd count  
Eric Anderson

9/18/95 ✓  
1515 - 1630

Grey Cr CG to USFS Bridge to  
nowhere

Def

Fish

Prob.

1

Pos.

1

Stray Fish

— 1

This section not done  
last survey - no old redds.

(only 1 pos.)

Rechecked Grey fr. to Blue slide  
Redds noted.

2

Bear Cr. 9/18/95  
(S.F. Tieton R. Trib.)  
BLC Redd Count 1210-1315  
Eric Anderson  
H<sub>2</sub>O Temp. 49° F  
Mouth to Falls

Def.  
||||

Fish  
||

Prob.  
|

Pos.

Stray Fish

Old Redds |||||

over →

S. F. Tieton R.

9/18/95

BLC Redd Count

1000 - 1210 Hrs

Eric Anderson

and 1345 - 1500 Hrs

H<sub>2</sub>O Temp 45° F

Falls to Rd 1050 Bridge

Def.

Fish

||||

||

||||

Prob.

Pos.

|

Stray Fish

— |||

old Redds

|

S. F. Tieton R. 8/31/95  
BLC Redd Count 0930-1500  
Eric Anderson  
H<sub>2</sub>O Temp. 45°F  
Rd 1050 Bridge to Grey Cr C.G.  
Fish

Def.

||||

||||

Prob.

Pos.

Stray Fish

|||||  
||

over →

Eric Anderson

✓

Deep Creek - continued 8/30/95

below Rd 1800 culvert

Fish

Det.

Prob.

Pos.

1

Stray Fish

11

8/30/95

Deep Creek

0900-1400 Hrs

Eric Anderson

BLC Kedd Count.

Rd 1800 Culvert - above

H<sub>2</sub>O Temp 45°F

Staff Gauge 1.98

Fish

Def.

||||



||||

Prob:

Pos.

Stray Fish

over →

||||



8/30/95

Jim Gummings

Deep Creek BAC Redd Survey

Temp 45° F Gauge 1.98

From 1800 Rd Culvert to area that  
"normally" goes dry.

1

Det. Redds 15 Fish 10

Prob Redds 1

---

From "normally dry area to ?

2

Det Redds 30 Fish

Prob Redds 1

Pos Redds 1 35

---

Below 1800 Rd Culvert

3

○ Redds

○ Fish

Must add Eric's data to  
get totals

# Rattlesnake Creek Survey

9/11/95

Hincho Creek - Marc

46°F

Mouth to falls

1238-1359

Ct  
26.0  
28.8

RS  
16.9

Ave width  
below Dog C  
28'

1

Lost 2 others

Dog Creek - Jim 1250-1400

45°F

Rs/Ct    BLC    WCT  
29    10    21

Mouth to Cascade.

Hook + line 1 hr.

2

Saw about 9 other fish. 1

was under BLC

Redds (BLC)

Date    Pos  
1/1    1

Ave width 20'

Rattlesnake Cr 7/11/95

✓ MJB trail upstream to 1/4 mile  
1820 - 1925 47°F

RS

CK

17

19.5

30

20.5

13

Ave wetted width - 38'

Takes 1 hour + hike from  
MJB Trail to Trail  
Crossing of Shell Cr. (upstream)

✓ 9/12/95

Shell Creek to Wildcat Cr.

0935-1100

40° F

CT

19.3

21.5

Split channel  
for 1/4 mile above  
Shell Cr. Trail  
Crossing

~~to the stream~~

Redds

HH 11

Right channel

11

Ave width - 30'

Fish Sighted

Redd CT

HH

BL

11-16"

13-13"

1-10"

1-5" 24

Rattlesnake Creek 9/11/95

Snorkel survey station

WSD Trail - 8:15 - 8:45

Approx 100 yds.

Fish

GT

HH

6" - 11"

Shell G - 150'

Saw 1 Axi, no ID.

9/12/95 Rattlesnake

Little Wicket Cr - To McNeal Cr

1100 - 1225

40° F

BLC 4

14.3 25.7

This area has changed - mostly  
2 channels

Redds

HHH III

Fish Sighted

BLC

111-8"

1-6"

Ave width 26"

✓ Little Wildcat to McNeal Cr  
(Continued) - Above steeper  
gradient boulder zone - low gradient  
lots of gravel - smaller - less  
flow. 1225-1340

9/12/95

C+

28.5

Redds

1

Ave width 15'

Almost all gravel

✓

\*

Shell/c downstream to  
wood post bridge on Trail  
± 114

9/12/95 - 1445 - 1745

Gt

BLC

19.5

38.5 spawn out female

29.3

48.5 spawn out female

15.5

26

19.5

Saw 15-20 ct

23

BLC - 1 - 12"

Ridds

HHH

Saw the same 20" BLC  
that we saw above



Snorkel upstream  
from Trail crossing above  
Shell Creek to top of  
split (left side).

CT	ALL
21	6
6-13"	2 loc 14"

6  
✓ Rattlesnake Cr - Cont WJ13  
To Shell Creek (from footbridge  
on 1114 trail down to within  
1/4 mile WJ13) approx 1 1/4 miles  
9/13/95 0950 - 1040

Fish caught

ct	Rslcr	Bkc	R5
21.5	21.5	0	23
25.			
24			

Redds

0

Saw Approx  
8 other fish

Ave width 30'

water Temp 41°F @ 1045

This area is in a canyon  
& steeper gradient than upstream  
Several large, deep pools

stream  
Rattlesnake Cr

4 From Mt B trail  
down approx 3/4 mile

9/13/95

Fished from 0830 - 1100

Gt

16.3

Saw 8 fish

Pos 1 8" Bhc

NO Redds

25 min walk up trail  
to get back to Mt B

Gold Creek. I-90 Bridge to  
Pond outflow - dry above

0920 : - 47°F 9/24/95

Redds

def	prob	pos	# BLC
	///		///

Old Redds Marked by Scott.

def	prob	pos
o	o	

Kokanee  
60 + 23+

Gold Gr Pond outflow <sup>2</sup> 9/22/95

0 Redds

35-40 KOK + KOK  
redds

No BLC

Dry from pond outlet  
for 3/4? mile

Road & culverts

Water area  $3/4$ ' above pond 3.  
to Trail Crossing

1020 -

47 F 9/22/95

Redds

Def	Pts	Pos	# BLC
1/1	1	1	2

- 
- 1 redd & large fish 150' up fr 1st redd
  - 1 " OF May have been flagged (redd) by Scott
  - 1 Prot's OF 60' upstream prev redd - left channel
  - 1 Prot's OF Scott flagged? red tape

About 400 ft below <sup>lower</sup> trail crossing  
short distance is dry.

Redd 300' upstream - see  
next page

Gold Creek - lower Trail Crossing  
to 2nd falls Cascades 9/22

1315 - 1440

Redds			
def	Prob	Poc	# BIC
HH	I	II	2

1 Poc 0-F  
 1 def 0-F  
 1 def 2-F Scott marked w red flag.  
 1 def 0-F  
 1 def 0-F  
 1 Poc 0-F  
 1 def 0-F  
 1 def 0-F  
 Scott flagged also orange/white flag  
 + / pos - dry shift  
 distance above this redd

Indian Cr 10/2/95

0930 - 45° E

Trap to Highway 12  
New Redds

Def	Prob	Pos	# BHC
0	0	0	HTT HTT HTT HTT
			HTT HTT HTT III
			HTT HTT HTT

Red Tars BHC

III

Old Redds

Def

1

Converted to Kok

1 def-Kokan redd

1 " "

1 " "

1 Prob "

1 Prob "

Lots of Kokanee & Kok

Redds - 200+ fish 100 Redds



Inclini Cr 10/2/95

New Redd (Highway 12 to N spring)

Def Prob Pos # BLC

III

II

0

# BLC on top

Old Redds

Def	Prob	Pos	Count of old Redds
### ##	III	##	2 Prob to Kok
## ##			1 Def to Kok
## ##			2 Pos to Kok
## ##			1 Prob to Pos
## III			1 Def to None
69	4	5	About 307 Kok redds + 507 Kok.
	Missed 1 from 9/5 or 22		

Indian Cr - N. Spring 10/2/95

1250 - 44°F

Recl'ds

New

Def Prob Pos # BLC

||||

Old Recl'ds

Def

Prob

Pos

Change

|||| |||

||

||

| Prob to | def  
| Pos to | def

|||| |||

1

31

2

2

Add above  
to totals

Box Canyon Creek

mouth to Falls

10/4/95 - 9:40 - 42°F

River high gut clear - difficult  
to walk in channel

New Redds

	def	prob	pos	#BR
111		1	1	0

Gold Creek 10/5/95  
0945 - 450 ft

Highway I-90 to Gold C  
Pond.

3 old prob redds were not  
visible, but will count.

Many Kokanee

Water flow at least double  
last survey.

Creek flowing above Pond  
outlet - perhaps 75-100 cfs  
No dry area

Temp Road outlet / road  
breached - creek 60' wide

Gold Cr 10/5/95

Above area that was  
gray last time

Old Redds

Def	Prob	Pos
HHH		

Deep Creek - above culvert  
 working down from 2.7 miles  
 above road 1800 + 1808 Rds  
 (1.0 mile above Copper Bank) Met  
 Eric, who was working upstream

Start 1125 - 1245 9/19/95

New Redds

Def	Pros	Pos	# B/C
HHH HHH	III	1	
II			

Old Redds

Def

~~Old Redds~~

Def	Pros	Pos
HHH III		
HHH III	1	1
HHH III		

Deep Creek 0915-100s  
Culvert to mouth. 9/19/95  
Left Channel

Redds

Def	Prob	Pos	# BLC
	○	○	○

1

No Old Redds

---

Right Channel - 1015-1100  
Redds Prob Pos # BLC  
1

2

Old Redds  
1 Pos

1 dead BLC (Tail + skin from  
above tail section of body)

S. F. Tilton R 1050 Rd to  
Gry Cr C.G. 9/15/95  
1010-1525 450 F

### New Redds

Def	Prob	Pos	# BLC
			11

55 x 4

Old Redds 8/31/95 Survey  
Def

1111 - Missed 1 of Eric's  
"old" redds or flag  
is missing.



Thames Cr - Cont 9/6/95  
 Upper South Spring  
 1420; 41°F

Def Redd	Prob Redd	Pos Red	# Fish
HHH			III

Red Tr

I

Eb?

1st 11"

1

Main Creek - U.S Spring to Falls

Def Redd	Prob Redd	Pos Red	# Fish
HHH HHH	1	1 1	HHHHH
HHH (1)			HHH
			Red Tr
			11

Eb?

1-10"

2

Indian Cr B+C Spawning  
Survey 9/6/95

North Spring to South Spring  
0900 - 440 F

Def Redds	Prob Redds	Pos Redds	# Fish
			Red Tag 1
<b>1</b>			

South Spring 1330 - 430 F

Def Redds	Prob Redds	Pos Redds	# Fish
			Res Tag 1
<b>2</b>			

Indian Cr - S. Spring to Upper S. Spring

Def Redd	Prob Redd	Pos Redd	# Fish
		1	
			Res Tag 1
<b>3</b>			

# Indian Creek 9/5/95 BHC Spawning Survey.

Mouth to North Spring 48°F 1005

Def Redds	Prob Redds	Pos Redds	# Fish
HHH HHH	HHH		HHH HHH
HHH HHH			HHH HHH
HHH HHH			HHH HHH
HHH HHH			HHH
<b>1</b>			Red Tag Fish 

**1**

Red Tag Fish  
||

North Spring 43°F - 1400

Def Redds	Prob Redds	Pos Redds	# Fish
HHH HHH			HHH HHH
HHH HHH			HHH HHH
HHH			HHH HHH
<b>2</b>			R <sub>2</sub> Tag 

**2**

R<sub>2</sub> Tag  
||

8/31/95 S. Fork Tishin  
Falls to Bear Cr 44° F 0930

Det Redds

1

Fish

HTT II

Bear Cr - mouth to fall, 46° F

Det Redds

Fish

1200

HTT II

2

HT HT HT HT HT HT

Fish only penetrated to about  
1/3 distance to falls. USFS survey sting  
3 minoutraps 1 Juv BLC & 1 CT

S. Fork - Bear Cr to 1050 ft (1945 50° F)

Det Redds

Fish

3

HTT HTT I

Fish 38

Snorkel Surveys - 8/31  
S. F. Tieton

Below Grey  
8129

38 fish

**N.F. Ahtanum**

9/30

Grey to Coral - 64 fish  
1 Red

Coral Cr UP 27  
Trap 1 / to 155 Rd

Indian Creek 113

Approx 8 tagged Indian Cr

1 tagged N.F.

44 tagged Indian Cr 1992

8 N.F. 1994

# Bull Trout Spawning Surveys

## Rattlesnake Creek

Date	Definite Redds	Probable Redds	Total Redds	Possible (False) Redds	Fish Observed
9/11-13/95	23	+	ϕ = 23	ϕ	11
* Hindeo Creek					
9/11-13/95	ϕ	+	ϕ = ϕ	ϕ	ϕ
* Dog Creek					
9/11-13/95	3	+	ϕ = 3	1	1
Season Total	26	+	ϕ = 26	1	
* Rattlesnake Cr. Tribs.					

## Ahtanum Creek

Date	Definite Redds	Probable Redds	Total Redds	Possible (False) Redds	Fish Observed
9/14/95	ϕ	+	ϕ = ϕ	ϕ	2
9/29/95	2	+	ϕ = 2	ϕ	ϕ
* Shellneck Creek					
9/14/95	ϕ	+	ϕ = ϕ	ϕ	ϕ
9/29/95	4	+	ϕ = 4	ϕ	2
Season Total	6	+	ϕ = 6	ϕ	

1  
9  
9  
0  
5

# LAKE AND STREAM SURVEY FORM

## Sample Site Identification

Water Name Dog Creek Section Name \_\_\_\_\_  
 Township 15 Range 13 E W (circle one) Section 14 Qtr. Section 5E  
 Site Specifics From confluence with Hindoo Creek up stream approx. 1/2 mile to cascades  
 Sample Date 09/11/95 International Time 1250 Physiographic Province      Stream Habitat Unit Type     

NOT FOR DATA ENTRY

County Yakima  
 Mgmt Unit Code Z20ZK3

Sampler Last Name CUMMINS Agency WIPFW

Comments (weather conditions, flooding, pollution, etc.) Same area sampled 9/23/94. Sampled by hook & line for 1 hour, caught 1ct, 1BLC + 1 RS/ct. Saw 9 other trout, 1 may have been BLC. 8 definite + 1 possible BLC redd.

## Chemistry for Streams and Lakes (multiple depths available for lakes)

	Depth 1	Depth 2	Depth 3	Depth 4	Depth 5	Depth 6	Depth 7	Depth 8	Depth 9	Depth 10	Method
Depth (m)											
Temp. (°C) <u>45°F</u>	<u>7.2</u>										
pH											
DO <sub>2</sub> (mg/l)											
Total Alkalinity (mg CaCO <sub>3</sub> /l)											
TDS (mg/l)											
Conductivity (micromhos/cm)											
Water Clarity (m-lake/JTU-stream)											
Nitrate N <sub>3</sub> (mg/l)											
Total PO <sub>4</sub> (mg/l)											
Ortho PO <sub>4</sub> (mg/l)											
Chlorophyll 'A' (mg/l)											
	SURFACE →			→				→			
										BOTTOM	

Other Chemical Measurements Taken: \_\_\_\_\_

T-15, R-13, S14

SAMPLE SITE

Creek

Creek

Creek

Hindosa





9/10/95 Fortune Cr. (Clo Elum R.)

BLC Spawning Survey

E. Anderson

Water Temp. 46°F

Angling 1030 - 1130

3 RB ♂ 7-8"      3 Followers  
(16-20.5 cm)      100% ♀

Angling upstream to 5' Falls  
approx. .75 mile

# LAKE AND STREAM SURVEY FORM

## Sample Site Identification

Water Name Hindoo Creek Section Name \_\_\_\_\_  
 Township 15 Range 13 E/W (circle one) Section 14 Qtr. Section 5E  
 Site Specifics Confluence with Rattlesnake Cr upstream approx 1 mile to falls  
 Sample Date 09/11/95 International Time 1238 Physiographic Province \_\_\_\_\_ Stream Habitat Unit Type \_\_\_\_\_  
mn dy yr

NOT FOR DATA ENTRY

County Yakima  
 Mgmt Unit Code Y74475

Sampler Last Name Marc Divens Agency WDFW

Comments (weather conditions, flooding, pollution, etc.) Creek low + clear. Same section surveyed 9/23/94. No B/C redds. Caught 2 ct, 1 RB in 1.2 hours, saw 2 other fish.

## Chemistry for Streams and Lakes (multiple depths available for lakes)

	Depth 1	Depth 2	Depth 3	Depth 4	Depth 5	Depth 6	Depth 7	Depth 8	Depth 9	Depth 10	Method
Depth (m)	•	•	•	•	•	•	•	•	•	•	
Temp. (°C) <u>46F</u>	<u>7.8</u>										
pH											
DO <sub>2</sub> (mg/l)											
Total Alkalinity (mg CaCO <sub>3</sub> /l)											
TDS (mg/l)											
Conductivity (micromhos/cm)											
Water Clarity (m-lake/JTU-stream)											
Nitrate N <sub>3</sub> (mg/l)											
Total PO <sub>4</sub> (mg/l)											
Ortho PO <sub>4</sub> (mg/l)											
Chlorophyll 'A' (mg/l)											
	SURFACE →							→ BOTTOM			

Other Chemical Measurements Taken: \_\_\_\_\_

### Stream Physical Attributes

Stream Type B Elevation (m) 1238 3,560'

Gradient (%) 06.1

Site Length (m) 1837 5,280'

Avg. Max Riffle Depth (m)     

Avg. Max Pool Depth     

Avg. Channel Width (m)     

Avg. Wetted Width (m) 9.7 28'

#### SUBSTRATE

     +      +      +      +      +      +      = 100%  
 Bedrock Boulder Rubble Gravel Sand Silt/mud Detritus

Embeddedness: High Med Low  
(Circle one) (>50%) (25-50%) (<25%)

Compaction: High Med Low  
(Circle one)

#### POOL/RIFFLERUN/OTHER RATIO

     +      +      +      = 100%  
 Pools Riffles Runs Other

#### INSTREAM COVER

Total      %

     +      +      +      +      +       $\geq$  100%  
 LOD Boulder In Veg OverVeg Cutbank Pools

#### INSTREAM FLOWS

Water Discharge (m<sup>3</sup>/sec):     

Method  
MAP  
MAP

VJ

### Lake Physical Attributes

Site Max Depth(m)     

Littoral or  Limnetic  
(check one)

#### AQUATIC VEGETATION COVER

Submergent Vegetation (%)     

Emergent Vegetation (%)     

Floating Vegetation (%)     

Method  
    

### Both Stream and Lake Physical Attributes

#### WATER COLOR (Check appropriate color)

- Clear
- Tannic (brown)
- Glacial (gray, milky)
- Muddy
- Algal Bloom (green, brown)
- Diatom Bloom (brown)
- Other (specify "other" in comment field)

#### % RIPARIAN VEGETATION

Deciduous      Coniferous     

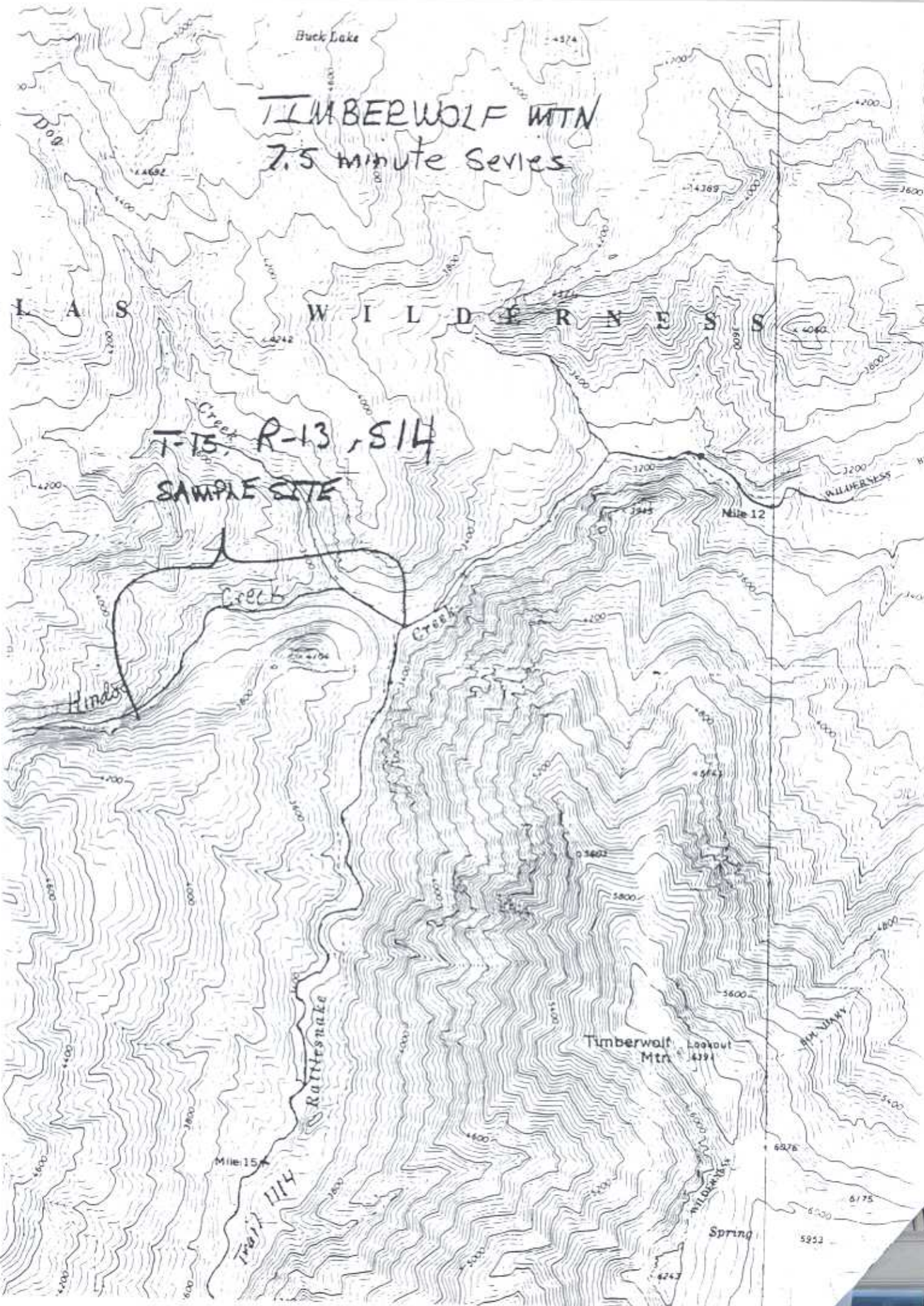
Shrubs      Grasses

Buck Lake

# TIMBERWOLF MTN 7.5 minute Series

## L A S W I L D E R N E S S

T-15 R-13, S14  
SAMPLE SITE

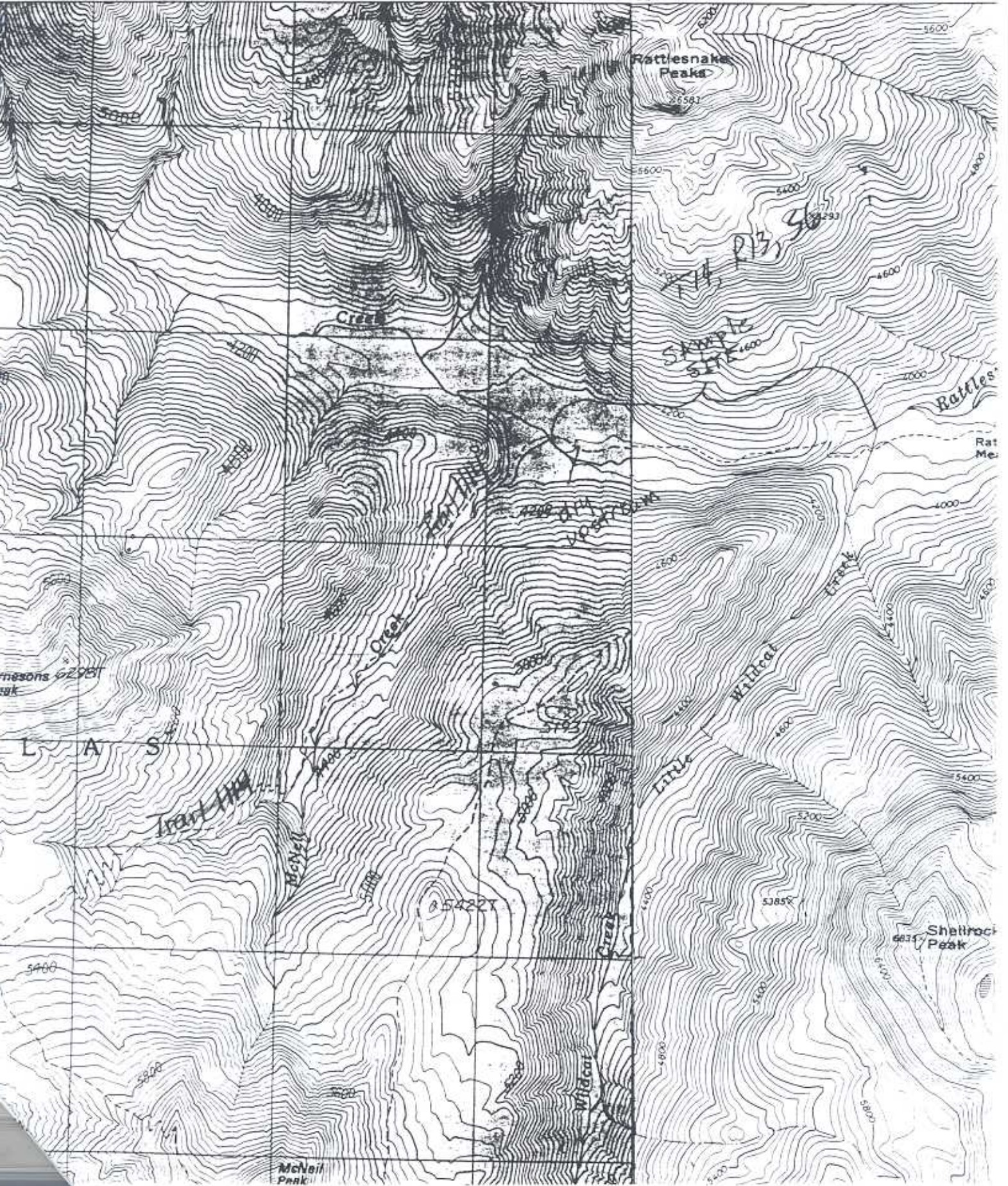




SPIRAL BUTTE QUADRANGLE  
WASHINGTON  
7.5 MINUTE SERIES (TOPOGRAPHIC)

Rimrock Lk Quadrangle  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

0° 831 832 833 1 810 000 FEET 121° 15' 634 000m E 835





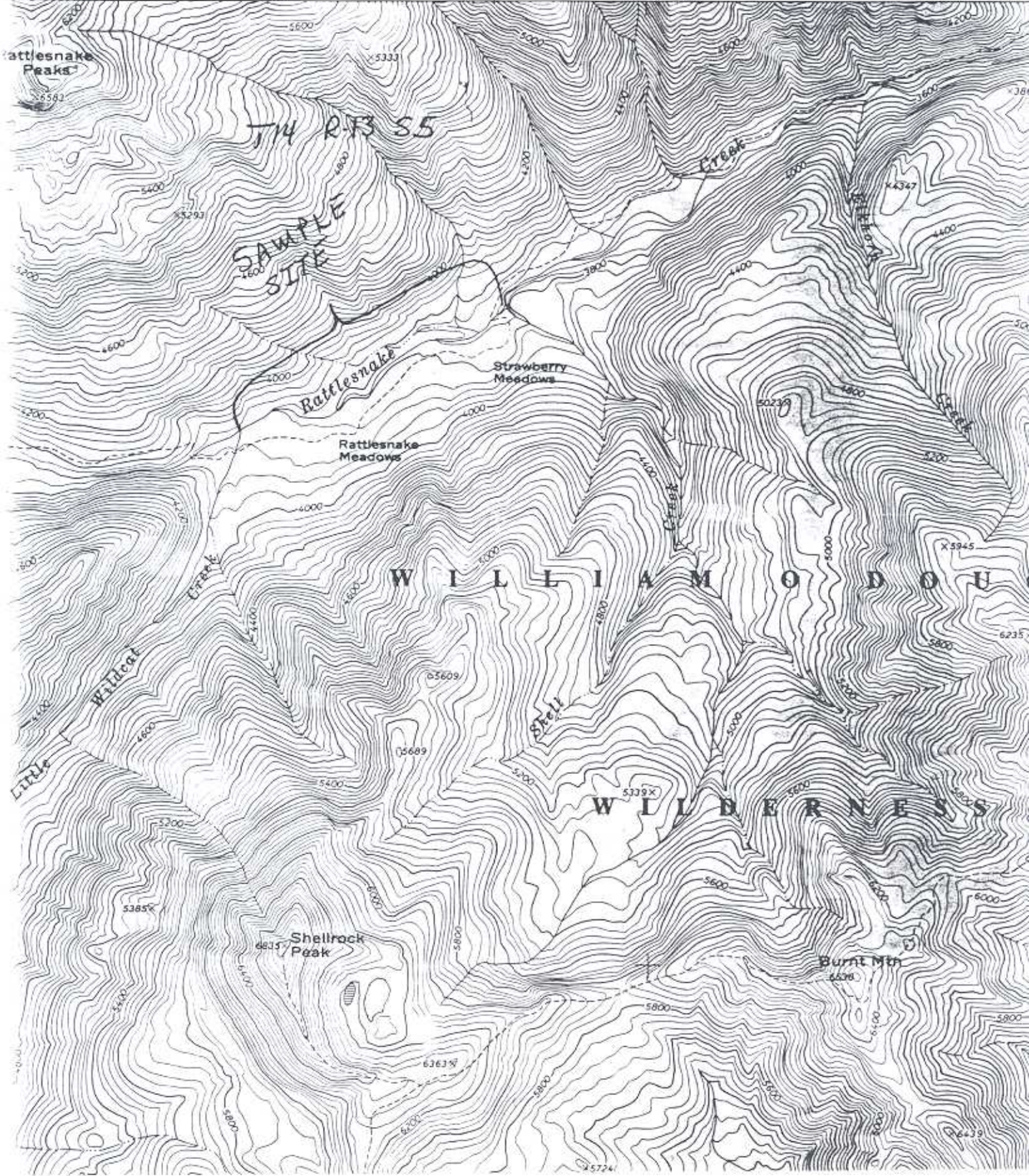
4612162  
RIMROCK LAKE

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

464500/1211500  
BR/DG

STATE OF WASH  
DEPARTMENT OF NATURAL  
DIVISION OF MINES AND

634000m E 935 936 12'30" 937 1777 SW 938 (TIMBERWOLF MOUNTAIN)

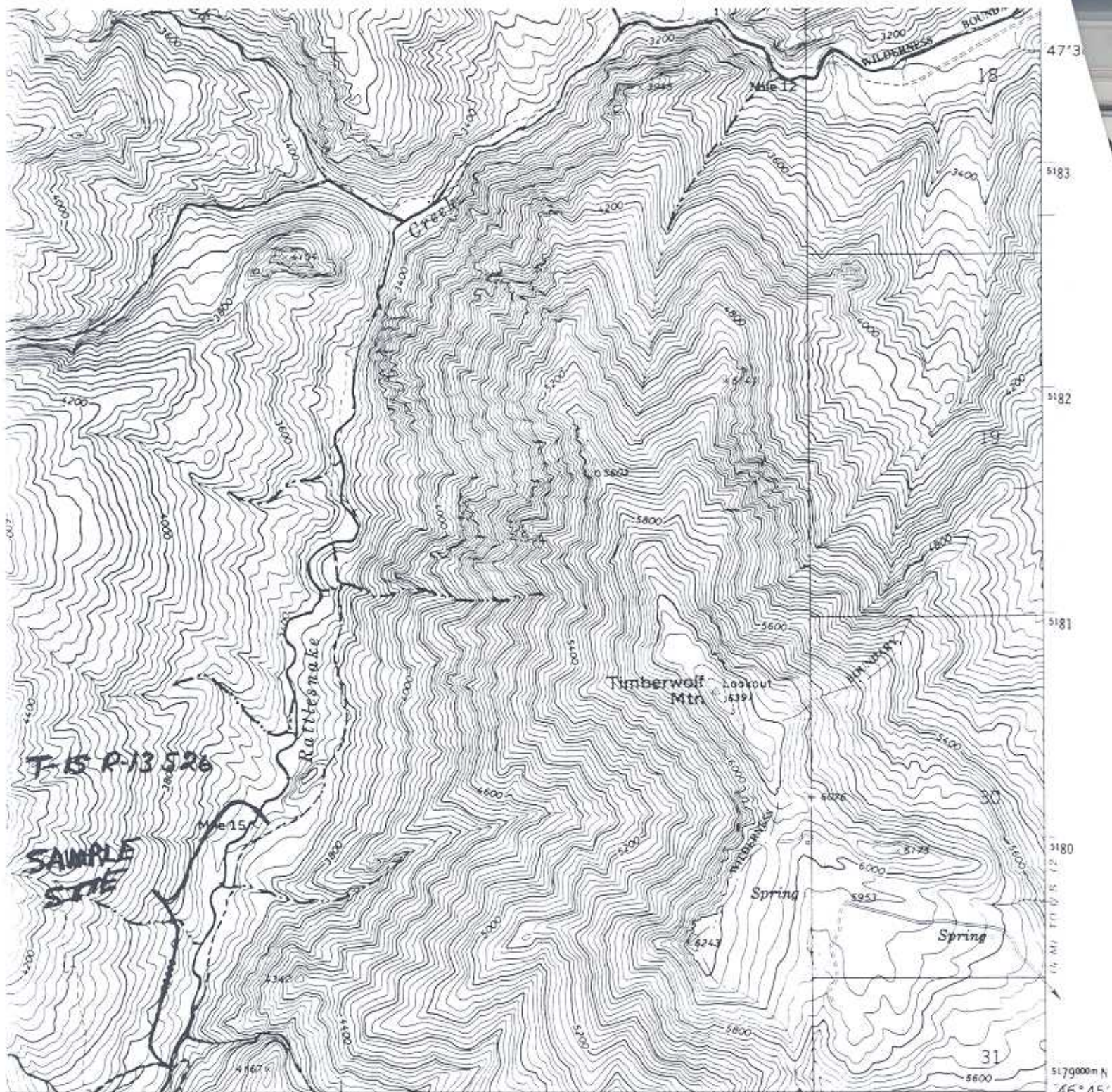




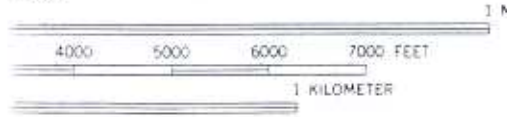








TAKE) 639 10' 642000m E R 14 E 121°07'30"



QUADRANGLE LOCATION

ROAD CLASSIFICATION

Primary highway, hard surface	Light-duty road, hard or improved surface
Secondary highway, hard surface	Unimproved road
Interstate Route	U. S. Route
	State Route

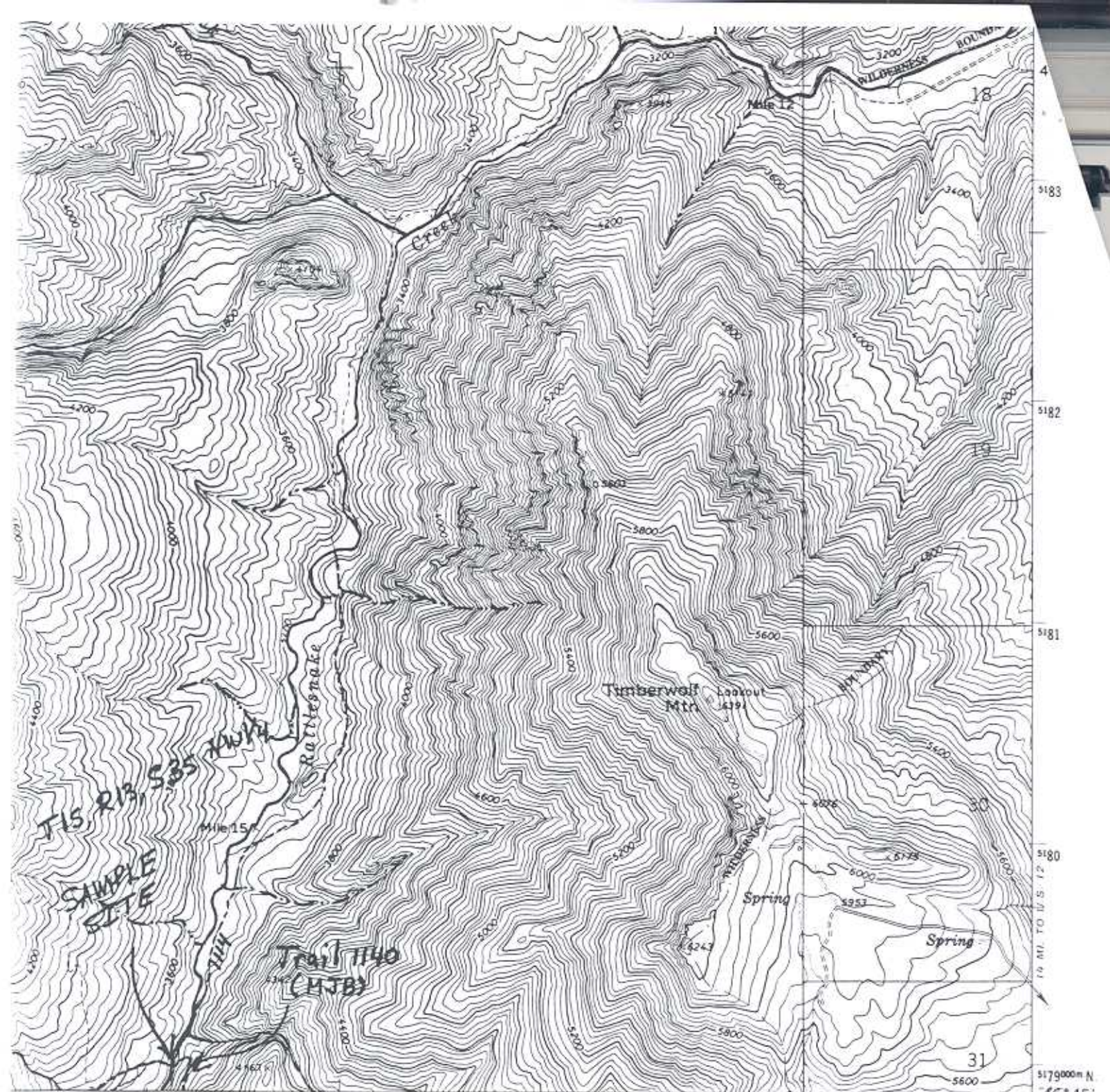
GEOLOGICAL SURVEY  
RESTON, VIRGINIA 22092  
ADDITIONAL SYMBOLS IS AVAILABLE ON REQUEST

Revisions shown in purple compiled from aerial photographs taken 1983 and other source data. Partial field check by U. S. Forest Service. Map edited 1987

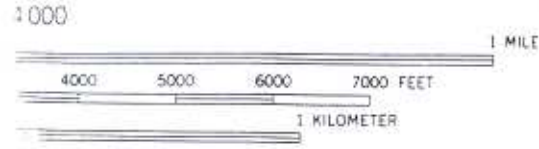
TIMBERWOLF MTN., WASH.  
46121-G2-TF-024

1971  
PHOTOREVISED 1987  
DMA 1777 1 SW-SERIES V891





TAKE) 39 10' 41 642000m E R 14 E 121°07'30" 5179000m N 46°45'



A1 40 FEET  
A1 DATUM OF 1929



QUADRANGLE LOCATION

Revisions shown in purple compiled from aerial photographs taken 1983 and other source data. Partial field check by U. S. Forest Service. Map edited 1987

ROAD CLASSIFICATION

- Primary highway, hard surface
- Secondary highway, hard surface
- Light-duty road, hard or improved surface
- Unimproved road
- Interstate Route
- U. S. Route
- State Route

TIMBERWOLF MTN., WASH.  
64121-G2-TF-024

1971  
PHOTOREVISED 1987  
DMA 1777 1 SW-SERIES V891

LOGICAL SURVEY  
RESTON, VIRGINIA 22092  
SYMBOLS IS AVAILABLE ON REQUEST



51780000 N

5177

5176

5175

42° 30' N

Rattlesnake Peaks

Rimrock Lk Quad  
7.5' Series

T14, R13, S4 NW1/4

SAMPLE SITE

Trail 1114

Trail 1114

Creek 1 Mile

Trail 1114

Trail 1114

Trail 1114

Rattlesnake Meadows

Strawberry Meadows

Burnt Mtn

Trail 1140

Creek

W I L L I A M O D O U G L A S

W I L D E R N E S S

Trail 1141

Wildcat Creek

Little

Shell Creek

Shellrock Peak

Burnt Mtn

53731

6581

4600

4000

3800

3600

4400

4200

4000

4400

5000

5200

5600

5800

5400

5200

5000

4800

4600

4400

4200

4000

3800

3600

3400

3200

3000

2800

2600

5600

5400

5200

5000

4800

4600

4400

4200

4000

3800

3600

6831

5319

6636

6100

6000

5800

5600

3885

4485

5672

5472

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5672

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5945

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Bumping R.

4/29/95

BLC Presence / Absence

H+L Survey

Jim / Eric

1200-1400

Month to Falls.

No bites, 1-1/2" Fry  
observed. No other  
Fish observed.

No spawning activity  
or redds.