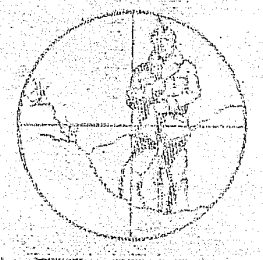
12-4-2009

Ex. 280-US-442

Unknown

SP-6

1331.02.1720 – F:7



WESCO

SPRAGUE R. nr. BEATTY

WEATHERPROOF

LEVEL BOOK

550-530

Book 2

MAY 2000

SP-6 SPRAGUE 5-19-00

* access granted by Homer Anderson (HERMAN ANDERSON)

- established 10 transects extending d/s from location of previous sampling transect #3

- Crew: M. Gagnon
W. Swaney
D. Silk
D. Harden
C. DOYDE

	In	Out
Time	8:30	11:30
S.G	0.0	0.0

equipment: Pentax AL-M2
Marsh McBirney Model 2

weather: sunny & warm 65°F
no ppt in past 24 hrs

SP-6 SPRAGUE R. 5-19-00

Photo Log - Duo Slide

#1 Roll A #1 RT. Bank To Left Bank looking Downstream

#10 - (AT Tape)

#2 #10 RT Tape from RT Bank

#3 Photo #9 Straight Across From RT Bank

#4 Photo #8 " " " "

5 #7 " " " "

6 #6 " " " "

7 #5 " " " "

8 #4 " " " "

9 #3

10 #2

11 #1 looking upstream - Dave Harden at #1 Transect

#12 " " " " " #1 Transect.

#13

SP-6 SPRAGUE RIVER 5-19-2000

RIGHT BANK STATIONING

	DIST
TR-10 to TR-9	53
TR-9 to TR-8	49
TR-8 to TR-7	46
TR-7 to TR-6	42.7
TR-6 to TR-5	42.4
TR-5 to TR-4	43.4
TR-4 to TR-3	39
TR-3 to TR-2	46
TR-2 to TR-1	44.7

EXISTING FENCE POSTS USED TO DESIGNATE TRANSECTS

HEADPINS PLACED ON RIGHT BANK

FENCE POST USED AS WORKING PINS

BM IS NAIL IN WOODEN CORNER POST U/S of TR-10 on RIGHT BANK

SP-6 LEVEL LOOP 5-19-2000

STA	BS	HI	FS	ELEV
BM	4.67	104.67		100.00
TR-10			6.73	97.94
TR-9			6.38	98.29
TR-8			4.87	99.80
TR-7			5.00	99.67
TR-6			5.84	98.83
TR-5			7.60	97.07
TR-4			7.65	97.02
TR-3			6.03	98.64
TR-2			5.04	99.63
TR-1			5.22	99.45
TP				
TR-1	5.12	104.57		99.45
TR-2			4.95	99.62
TR-3			5.94	98.63
TR-4			7.56	97.01
TR-5			7.50	97.07
TR-6			5.75	98.82
TR-7			4.91	99.66
TR-8			4.78	99.79
TR-9			6.29	98.28
TR-10			6.63	97.94
BM			4.58	99.99

WMS

SP-6 SPRAGUE RIVER 5-19-2000

WATER SURFACE ELEVATION

STA	BS	HI	FS	ELEV	DEPTH
TR-10 RB		104.57	9.82	96.01	1.26
TR-10 LB			9.43	96.04	0.90
TR-9 RB			9.76	96.01	1.20
TR-9 LB			9.46	96.06	0.95
TR-8 RB			10.29	96.01	1.73
TR-8 LB			9.48 ~~9.09~~	~~96.04~~ ~~96.09~~	0.95
TR-7 RB			10.68	96.00	2.11
TR-7 LB			9.74	96.02	1.19
TR-6 AB			10.01	96.02	1.46
TR-6 LB			9.55	96.02	1.00
TR-5 RB			9.67	96.04	1.14
TR-5 LB			9.68	96.01	1.12
TR-4 HP	5.62	102.63		97.01	
TR-4 RB			6.91	96.00	0.28
TR-4 LB			~~7.32~~ ~~7.68~~	96.01	~~0.70~~ ~~1.17~~
TR-3 RB			6.96	96.00	0.33
TR-3 LB			7.56	96.00	0.93
TR-2 RB			7.59	96.00	0.96
TR-2 LB			7.78	96.00	1.15
TR-1 RB			6.95	95.98	0.30
TR-1 LB			7.55	96.01	0.93

SP-6 SPRAGUE RIVER 5-19-2000

LEFT BANK STATIONINGS

	DIST (FT)
TR-10 to TR-9	45
TR-9 to TR-8	40
TR-8 to TR-7	51
TR-7 to TR-6	46
TR-6 to TR-5	45.5
TR-5 to TR-4	47
TR-4 to TR-3	30.5
TR-3 to TR-2	53
TR-2 to TR-1	30.5

SP-6 SPRAGUE RIVER DISCHARGE 5-AP-2000

STA	DEPTH	VEL(1)	VEL(2)	COMMENT
24	0	0		REW
27	1.6	.32		
34	2.9	.51	.71	
41	4.0	.81	.89	
48	3.8	.96	1.13	
55	4.1	1.13	1.18	
62	5.3	1.19	1.33	
65	6.0	1.19	1.34	
69	6.7	1.31	1.31	
71	6.9	1.23	1.34	
76	7.0	1.50	1.35	
80	6.7	1.58	1.44	
83	7.0	1.35	1.39	
87	6.65	1.22	1.08	
90	6.1	.98	1.00	
95	4.3	.52	.64	
100	4.4	.11	.22	
105	2.0	-.16		
107	1.4	-.22		
109	0	0		LEW

VEL(1) = TOP
VEL(2) = BOTTOM
WHEN DEPTH ≥ 2.5

SP-6 SPRAGUE RIVER 6-29-00

MID-FLOW MEASUREMENTS

CREW: W. SWANEY
M. GAGNER
C. DAUDE
N. LABOSKI

WEATHER: SUNNY and HOT
AIR TEMP ~ 90°F

EQUIPMENT: PENTAX AL-MZ
721444

MARSH McBIRNEY
2000116
2001118

	IN	OUT
TIME	09:30	18:30
SG	0.0	0.0

SP-6 | SPRAGUE RIVER | 6-29-00

LEVEL LOOP

STA	BS	HI	FS	ELEV	
BM	4.52	104.52		100.00	
TR-10			6.58	97.94	
TR-9			6.23	98.29	
TR-8			4.72	99.80	
TR-7			4.85	99.67	
TR-6			5.70	98.82	
TR-5			7.44	97.08	
TR-4			7.50	97.02	
TR-3			5.88	98.64	
TR-2			4.89	99.63	
TR-1			5.06	99.46	
(TP)					
TR-1	4.74	104.20		99.46	
TR-2			4.56	99.64	
TR-3			5.55	98.65	
TR-4			7.17	97.03	
TR-5			7.12	97.08	
TR-6			5.37	98.83	
TR-7			4.52	99.68	
TR-8			4.39	99.81	
TR-9			5.91	98.29	
TR-10			6.25	97.95	
BM			4.20	100.00	

WMS

SP-6 | SPRAGUE RIVER | 6-29-00

TR-10 | ~~RIGHT~~ BANK PROFILE

STA	BS	HI	FS	ELEV	
BM	3.99	103.99		100.00	
1.0			6.65		BASE RWP
3			6.47		
6			6.15		
9			5.80		
12			5.55		
15			5.54		
18			5.46		
21			6.22		
23			6.72		
24			7.29		
25			7.82		
25.3			8.32	95.67	REW/RWS
110.4			8.33	95.66	LEW/LWS
111			7.54		
112			7.34		
113			6.97		
114			6.63		
115			5.81		
116			5.60		
118			5.08		
120			4.55		
122.7			4.08		BASE LWP

VALLEY PROFILE FOR ALL TRANSECTS IS AT BASE M WORKING PINS (FENCE POSTS)

SP-6 SPRAGUE RIVER 6-29-00

TR-9 PROFILE

STA	BS	HI	FS	ELEV	
1.0		103.99	6.11		BASE RWP
3			6.30		
6			6.62		
9			6.68		
12			6.45		
15			6.50		
18			6.74		
19			6.90		
20			7.32		
21			7.90		
22.1			8.36	95.63	REW/RWS
BM	6.11	106.11		100.00	TP
129.8			6.25		BASE LWP
127			6.91		
124			7.08		
121			6.96		
118			6.88		
116			7.20		
114			8.52		
113			8.70		
112			10.23		
111.2			10.45	95.66	LEW/LWS

NOTE: ADJUST LEFT BANK STATIONS BASED ON DISTANCE TO LWP FROM DEPTH/VELOCITY MEASUREMENTS, IF NEEDED

SP-6 SPRAGUE RIVER 6-29-00

TR-8 PROFILE

STA	BS	HI	FS	ELEV	
1.0		103.99	4.71		BASE RWP
3			4.81		
6			4.95		
9			5.23		
12			5.50		
15			5.45		
18			5.43		
20			5.86		
21			7.51		
22			8.48		
23.8			8.40	95.59	REW/RWS
FENCEPOST		106.11	0.26	105.85	TP
FENCEPOST	0.25	106.10		105.85	
137.4			5.00		BASE LWP
135			5.15		
133			5.35		
131			5.91		
129			6.46		
127			6.85		
125			7.12		
124			7.58		
123			8.41		
122			8.90		
121			9.55		
120			9.55		
119			9.64		
117			9.79		
115			10.01		
113			10.44		
112.6			10.47	95.63	LEW/LWS

SP-6		SPRAGUE RIVER TR-7 PROFILE		6-29-00	
STA	BS	HI	FS	ELEV	
1.0		103.99	4.82		BASE RWP
3			4.65		
6			4.57		
9			4.63		
12			4.64		
15			4.75		
18			5.00		
21			5.51		
24			5.86		
26			6.05		
27			6.38		
28			7.11		
28.4			8.35	95.64	REW/RWS
145.5		106.10	5.25	100.85	BASE LWP
140			5.55		
135			5.16		
130			5.04		
128			5.55		
126			6.11		
124			6.76		
122			7.36		
120			8.10		
118			8.56		
116			9.21		
115			9.95		
114			10.29		
113			10.43	95.67	LEW/LWS

SP-6		SPRAGUE RIVER TR-6 PROFILE		6-29-00	
STA	BS	HI	FS	ELEV	
1.0		103.99	5.98		BASE RWP
3			5.72		
6			5.22		
9			4.82		
12			4.68		
15			4.63		
18			4.45		
21			4.35		
24			4.70		
27			5.26		
28			5.95		
29			6.22		
30			7.30		
31			8.34	95.65	REW/RWS
153.5		106.10	5.05		BASE LWP
150			5.29		
145			5.44		
140			5.51		
135			5.13		
130			4.90		
128			6.08		
126			7.05		
124			7.96		
122			8.68		
121			9.18		
120			9.80		
118.1			10.42	95.68	LEW/LWS

SP SP-6 | SPRAGUE RIVER TR-5 PROFILE | 6-29-00

ST.	STA	BS	HI	FS	ELEV	
1	TR-5	7.93	105.01		97.08	HP
3	1.0			8.49		BASE RWP
6	~~3~~ 6			8.31		
9	12			8.05		
12	18			7.90		
15	22			6.03		
18	26			5.47		
2	~~3~~ TP					
24	TR-5	5.64	102.72		97.08	HP
27	31			3.75		
2	37			5.02		
29	40			5.75		
29	41			7.07		~~REW~~/~~RWS~~
145	41.3			7.07	95.65	REW/RWS
141	162		106.10	5.68		BASE LWP
139	155			5.68		
136	150			5.79		
129	145 140			5.68 5.29		
126	135 132			5.57 6.11		
124	129			6.89		
122	127			7.67		
120	125			8.39		
118	124			9.08		
116						
115	122			9.85		
114	121			10.27		
113	120.7			10.42	95.68	

SP-6 | SPRAGUE RIVER TR-4 PROFILE | 6-29-00

STA	BS	HI	FS	ELEV	
TR-4	4.94	101.96		97.02	HP
1.0			5.36		BASE RWP
-5.0			4.15		
-10.0			3.18		
-15.0			2.75		
5.0			5.53		
10			5.81		
15			5.72		
20			5.57		
25			5.08		
30			3.93		
32			4.68		
37			5.19		
39			5.36		
41			5.76		
43			5.85		
44.6			6.34	95.62	REW/RWS
1.0			5.34		BASE LWP
10.0			5.23		
20.0			5.58		
30.0			5.33		
40.0			5.30		
41.0			6.85		
43.0			8.40		
45			9.33		
46			10.00		
47.9			10.42	95.68	LEW/LWS

SP-6 | SPRAGUE RIVER TR-3 PROFILE | 6-29-00

STA	BS	HI	FS	ELEV	
TR-3	6.02	104.66		98.64	HP
1.0			6.35		BASE RWP
3			6.79		
5			7.57		
8			7.99		
12			8.20		
16			8.12		
20			8.06		
24			8.01		
28			7.94		
32			7.98		
36			8.24		
37			8.42		
39			8.71		
41.8			9.03	95.63	REW/RWS
FENCEPOST		106.10	1.21	104.89	TP
FENCEPOST	0.93	105.82		104.89	
1.0			5.25		BASE LWP
10.0			5.33		
20.0			5.56		
30.0			5.40		
40.0			5.17		
44.0			5.94		
45			8.40		
46			9.08		
47			9.26		
48			9.33		
49.0			10.15	95.67	LEW/LWS

SP-6 | SPRAGUE RIVER TR-2 PROFILE | 6-29-00

STA	BS	HI	FS	ELEV	
1.0		104.66	5.32		BASE LWP
4			5.58		
8			6.06		
10			6.53		
12			7.11		
16			7.41		
20			7.38		
24			7.36		
28			7.33		
32			7.34		
34			7.55		
36			8.02		
37			8.53		
38.5			9.01	95.65	REW/RWS
1.0		105.82	5.70		BASE LWP
10			5.75		
20			6.29		
30			6.05		
40			6.35		
41			6.73		
42			7.55		
43			8.18		
44			8.98		
45			9.68		
46.5			10.16	95.66	LEW/LWS

SP-6		SPRAGUE RIVER TR-1 PROFILE		6-29-00	
STA	BS	HI	ELEV	FS	
1.0		104.66		5.65	BASE RWP
5				5.39	
10				5.18	
14				5.17	
16				5.97	
18				6.19	
20				6.57	
22				6.99	
23				7.67	
25				8.12	
27				8.52	
29				8.83	
30.7			95.64	9.02	REW/RWS
1.0			105.82	6.17	BASE LWP
10				6.70	
20				6.63	
30				6.19	
38				6.83	
39				9.00	
40				9.88	
40.9			95.66	10.16	LEW/LWS

SP-6	SPRAGUE RIVER TR-1 DEPTH/VELOCITY			6-29-00
STA	DEPTH	V_1	V_2	COMMENT
147.5	Ø	Ø		LEW
145	1.0	0.0		IN VEG
140	2.1	0.17		
135	1.7	Ø		IN VEG
130	1.5	0.10		
125	1.5	0.02		
120	1.5	-0.02		
115	1.6	0.0		IN VEG
110	2.0	-0.01		
105	2.4	0.47		
100	2.6	0.70	0.46	
95	2.7	0.67	0.50	
90	2.8	0.78	0.41	
85	2.9	0.80	0.70	
80	2.9	0.83	0.73	
75	2.8	0.91	0.80	
70	2.7	0.91	0.83	
65	2.6	0.98	0.82	
60	2.5	0.92	0.79	
55	2.5	0.97	0.80	
50	2.6	0.95	0.77	
45	2.3	0.34		
40	1.7	0.15		
35	1.1	0.33		
31	Ø	Ø		REW

V_1 = TOP
V_2 = BOTTOM
> WHEN DEPTH ≥ 2.5

SP-6	SPRAGUE RIVER TR-2 DEPTH/VELOCITY			6-29-00
STA	DEPTH	V1	V2	COMMENT
38.4	Ø	Ø		REW
40	.8	.10		
44	1.9	.03		
48	2.3	.10		
52	3.0	.50	.45	
56	3.2	.62	.49	
60	3.1	.66	.63	
64	3.2	.65	.58	
68	3.2	.64	.62	
72	3.3	.74	.63	
76	3.4	.76	.67	
80	3.4	.72	.55	
84	3.4	.69	.64	
88	3.4	.67	.58	
92	3.4	.61	.31	
96	3.2	.53	.55	
100	3.1	.61	Ø.01	BOTTOM IN VEG
104	3.3	.48	.34	
108	3.3	.45	0.27	
112	3.1	.43	.18	
116	3.1	.26	.15	
120	3.1	.20	.05	
124	2.8	.13	.03	
128	2.4	-.01		IN VEG
132	1.6	-.02		IN VEG
135	0.8	-.05		
136	Ø	Ø		LEW

SP-6	SPRAGUE RIVER TR-3 DEPTH/VELOCITY			6-29-00	
STA	DEPTH	V.2	V.C	V.8	COMMENT
40.5	Ø		Ø		REW
43	0.6		.01		
46	2.5	.02		.38	
50	3.7	-.02		-.12	IN VEG
54	4.0	.37		.41	
58	3.9	.47		.51	
62	3.9	.55		.58	
66	3.8	.63		.65	
70	3.9	.63		.68	
74	3.9	.61		.69	
78	3.9	.54		.72	
82	3.9	.54		.69	
86	4.0	.62		.69	
90	4.1	.51		.69	
94	4.15	.54		.61	
98	4.15	.55		.57	
102	4.3	.41		.51	
106	4.3	.30		.44	
110	4.2	.27		.30	
114	4.1	-.02		.23	
118	2.8	-.09		.13	
122	1.35		.22		
126.2	Ø		Ø		LEW

SP-6 SPRAGUE RIVER 6-29-00

TR-4 DEPTH/VELOCITY

STA	DEPTH	V.2	V.6	V.8	COMMENT
121.7	Ø		Ø		LEW
118	1.4		.16		
114	4.3	-.01		.22	
110	3.25	.05		.25	
106	4.5	.30		.15	
102	4.2	.29		.43	
98	4.1	.39		.52	
94	4.15	.40		.58	
90	4.2	.45		.62	
86	4.5	.54		.66	
82	4.6	.52		.80	
78	4.5	.59		.71	
74	4.5	.54		.72	
70	4.4	.47		.66	
66	4.3	.47		.58	
62	4.3	.55		.47	
58	4.1	.47		.43	
54	3.8	.34		.41	
50	3.5	.08		.13	
47	1.9		.40		
44	Ø		Ø		REW

SP-6 SPRAGUE RIVER 6-29-00

TR-5 DEPTH/VELOCITY

STA	DEPTH	V.2	V.6	V.8	COMMENT
120.7	Ø		Ø		LEW
116	2.15		.18		
115	3.7	.02		.12	
111	4.1	.02		.23	
107	4.0	.07		.45	
103	3.7	.31		.44	
99	3.5	.37		.49	
95	3.5	.34		.52	
91	3.5	.56		.55	
87	3.8	.42		.77	
83	4.25	.57		.60	
79	4.8	.50		.61	
75	5.0	.43		.75	
71	5.1	.48		.67	
67	5.1	.43		.62	
63	5.0	.42		.62	
59	5.25	.40		.54	
55	5.0	.46		.43	
51	4.2	.29		.30	IN WOODY DEBRIS
47	3.4	-.02		.04	"
43	0.6		-.01		"
40.8	Ø		Ø		REW

SP-6 SPRAGUE RIVER 6-29-00
TR-6 DEPTH/VELOCITY

STA	DEPTH	V.2	V.6	V.8	COMMENT
31.5	Q		Q		REW
34	2.2		0.0		
38	2.8	-.09		.07	
42	3.25	.04		.05	
46	4.0	.30		.42	
50	4.5	.40		.49	
54	4.5	.45		.62	
58	4.35	.55		.67	
62	4.3	.47		.61	
66	4.4	.51		.61	
70	4.6	.57		.69	
74	3.8	.53		.67	
78	3.5	.44		.70	
82	3.3	.57		.73	
86	3.3	.53		.60	
90	3.3	.45		.64	
94	3.2	.34		.58	
98	3.0	.47		.59	
102	3.0	.24		.56	
106	3.45	.12		.43	
110	3.7	.03		.29	
114	1.6		.06		
116	0.7		.05		
118.3	Q		Q		LEW

SP-6 SPRAGUE RIVER 6-29-00
TR-7 DEPTH/VELOCITY

STA	DEPTH	V.2	V.6	V.8	COMMENT
113.5	Q		Q		LEW
110	2.2		.14		
106	3.5	.18		.12	
102	3.6	.44		.43	
98	4.2	.47		.58	
94	4.0	.57		.65	
90	3.8	.57		.72	
86	3.6	.58		.76	
82	3.5	.51		.63	
78	3.5	.61		.68	
74	3.4	.61		.72	
70	3.3	.54		.71	
66	3.4	.58		.68	
62	3.7	.56		.67	
58	3.8	.45		.61	
54	3.8	.42		.62	
50	3.8	.52		.61	
46	3.8	.20		.50	
42	3.9	.29		.40	
38	3.8	.07		.19	
34	2.6	-.02		.16	
30	1.9		.06		
28	1.5		.07		REW 2.5 FT UCB

SP-6 TR-8		SPRAGUE RIVER DEPTH/VELOCITY		6-29-00	
STA	DEPTH	V.2	V.6	V.8	COMMENT
21.5	Ø		Ø		REW
25	1.8		.01		
29	2.1		0.0		
33	2.2		.01		WOODY DEBRIS
37	3.2	.10		.29	
41	3.4	.00		.41	
44	3.35	.43		.55	
48	3.45	.38		.62	
52	3.2	.26		.61	
56	3.3	.41		.63	
60	3.2	.45		.59	
64	3.1	.49		.64	
68	3.3	.53		.62	
72	3.55	.46		.60	
76	3.9	.58		.62	
80	4.05	.63		.65	
84	4.2	.61		.65	
88	4.5	.57		.73	
92	4.8	.51		.67	
96	4.8	.45		.43	
100	4.8	.40		.27	
104	4.0	.01		.26	
108	1.55		.11		
110	0.5		-.15		
112.6	Ø		Ø		LEW

SP-6 TR-9		SPRAGUE RIVER DEPTH/VELOCITY		6-29-00	
STA	DEPTH	V.2	V.6	V.8	COMMENT
22.1	Ø		Ø		REW
25	0.9		-.01		
30	1.6		-.03		
34	1.9		.06		
38	3.2	.02		.21	
42	3.4	.29		.44	
46	3.35	.32		.45	
50	3.3	.41		.52	
54	3.3	.46		.51	
58	3.5	.47		.59	
62	3.65	.45		.58	
66	3.8	.53		.57	
70	4.2	.52		.56	
74	4.5	.59		.61	
78	4.7	.62		.63	
82	4.7	.62		.58	
86	4.9	.64		.59	
90	5.1	.63		.56	
94	4.9	.49		.46	
98	4.7	.23		.34	
102	4.4	.15		.25	
106	2.2		-.04		
109	1.4		-.01		
111.2	Ø		Ø		LEW

SP-6 SPRAGUE RIVER 6-29-00

TR-10 DEPTH/VELOCITY

STA	DEPTH	V.2	V.6	V.8	COMMENT
25.3	Ø		Ø		REW
27	0.9		.01		
31	1.7		-.04		
35	2.6	.02		.20	
39	3.65	.03		.27	
43	3.5	.22		.28	
47	3.5	.36		.39	
51	3.6	.42		.43	
55	4.0	.45		.46	
59	4.7	.46		.43	
63	5.65	.46		.46	
67	6.3	.56		.41	
71	7.05	.55		.51	
75	7.2	.63		.50	
79	7.5	.53		.58	
83	7.4	.59		.48	
87	7.5	.33		.44	
91	7.2	.10		.21	
95	6.5	-.03		-.01	
99	4.2	-.02		-.06	
103	2.7	-.03		-.07	
105	1.5		-.07		
108	0.8		-.03		
110.4	Ø		Ø		LEW

SP-6 SPRAGUE RIVER 6-29-00

PHOTO LOG

PHOTO #	DESCRIPTION
2	LOOKING U/S from BELOW TR-10
3	RIGHT to LEFT at TR-10
4	" TR-9
5	" TR-8
6	" TR-7
7	" TR-6
8	" TR-5
9	" TR-4
10	" TR-3
11	" TR-2
12	" TR-1

SP-6 SPRAGUE 10-5-00

LOW FLOW MEASUREMENTS

CREW = W. SWANEY
M. GAGNER
B. KVAM
C. DAYDE
D. HARDER (MORNING)

WEATHER: SUNNY and WARM

EQUIPMENT: MARSH McBIRNEY #2000116
SWOFFER (KLAMATH TRIBE)

	IN	OUT
TIME	09:30	17:00
SG	0.0	0.0

SP-6 SPRAGUE			TR-1		10-5-00
STA	DEPTH	V.2	V.6	V 8	SUBSTRATE
WP. 0.1					
147.5		SEE	SP-6	BOOK # 1	
145					
140					
135					
130					
125					
120					
115					
110					
105					
100					
95					
90					
85					
80					
75					
70					
65					
60					
55					
50					
45					
40					
35					
31					

SP. 6	SPRAGUE RIVER DEPTH / VELOCITY			10-5-00
% EMBED	COVER	COMMENTS		
				BOTTOM CODES
				1 ORGANIC
				2 SILT
				3 SAND
				4 S. Gravel
				5 L. Gravel
				6 S. Cobble
				7 L. Cobble
				8 Boulder
				9 Bed Rock
				COVER CODES
				1 Instream
				2 undercut
				3 Overhead
				4 Comb.

SP-6 SPRAGUE RIVER 10-5-00
TR-2 DEPTH AND VELOCITY

STA	DEPTH	V.2	V.6	V.8	SUBST	% EMB.	COVER	COMMENTS
38.4								RWE WP - 1.0
40		SEE SP-6		BOOK #1				4 S Gra
44								5 L Gra
48								6 S Co
52								7 M LD
56								
60								
64								
68								
72								
76								
80								
84								
88								
92								
96								
100								
104								
108								
112								
116								
120								
124								
128								
132								
135								
136								

SP-6 SPRAGUE RIVER 10.5.00

TR-3 DEPTH AND VELOCITY

STA	DEPTH	V.2	V.6	V.8	SUBST	% EMB	COVER	COMMENT
40.5								
43		SEE SP-6 BOOK #1						
46								
50								
54								
58								
62								
66								
70								
74								
78								
82								
86								
90								
94								
98								
102								
106								
110								
114								
118								
122								
126.2								

4 S Gvs
5 L Sra
6 S Co
7 L Co

SP-6 TR-4 SPRAGUE RIVER DEPTH / VELOCITY 10.5.00

STA	DEPTH	V.2	V.6	V.8	SUBST	% EMB.	COVER	CONDITIONS	
								LWE RWE	WP = 1.0
121.4	0		0		2.1	—	—		
118	1.15		.19		2.1	—	—		4 S fm
114	3.5	.13		-.01	2.3	—	1.0	VEG	5 L fm
110	3.6	.13		0	2.3	—	1.0	VEG	6 S Co
106	3.7	.50		.23	2.1	—	—		7 L Co
102	3.6	.48		.28	2.1	—	—		
98	3.5	.71		.54	3.2	—	—		
94	3.5	.70		.59	3.2	—	—		
90	3.6	.89		.57	3.2	—	—		
86	3.9	.87		.72	3.2	—	—		
82	4.0	.89		.64	3.2	—	—		
78	3.9	.91		.67	3.2	—	—		
74	3.8	.94		.70	3.2	—	—		
70	3.7	.91		.72	4.3	—	—		
66	3.6	.89		.76	4.3	—	—		
62	3.6	.74		.58	3.2	—	—		
58	3.5	.65		.53	3.2	—	—		
54	3.0	.44		.38	4.2	25	—		
50	2.7	.19		-.01	2.1	—	1.0	woody debris	
47	1.0		-.04		2.1	—	1.0	"	
45.1	0		0		2.1	—	—	~~LWE~~ RWE	

SP-6 SPRAGUE RIVER 10.5.00

TR-5 DEPTH/VELOCITY

STA	DEPTH	V.2	V.6	V.8	SUBST	% ETIB.	CONCR	COMMENTS
119.5	0		0		2.1	–	–	LWE WP = 1.0
116	1.4		.27		2	–	–	4 S Gr
115	3.0	.27		.01	2.1	–	1.0	VEG 5 L Gr
111	3.4	.19		.02	2.1	–	1.0	VEG 6 S G
107	3.4	.30		.02	2 3	–	–	7 L G
103	3.0	.46		20	3.4	–	–	
99	2.9	.61		.36	3.4	–	–	
95	2.8	.84		.52	3.4	–	–	
91	2.9	.76		.58	3.4	–	–	
87	3.2	.83		.46	3.4	–	–	
83	3.6	.85		.57	3.4	–	–	
79	4.2	.95		.64	3.4	–	–	
75	4.4	.91		.68	3.3	–	–	
71	4.4	.88		.68	2.3	–	–	
67	4 4	.87		.68	4.2	25	–	
63	4.4	.78		.61	4 2	25	–	
59	4 6	.61		.55	4 2	25	–	
55	4 2	.51		.41	4.2	50	–	
51	3.4	.12		.01	4 2	50	–	
47	2.6	.11		.05	2.1	–	1.3	WOOD
43	.2		0		2 1	–	1.3	WOOD
42.7	0		0		2 1	–	–	RWE

SP. 6 — TR-6 — SPRAGUE RIVER — DEPTH AND VELOCITY — 10.5.00

STA	DEPTH	V.2	V.6	V.8	SUBST.	% EMB.	COVER	COMMENTS
31.9	0		0		2.1	–	–	RWE
34	1.4		.04		2.1	–	10	VEG
38	2.2		0		2.1	–	1.0	VEG
42	2.6	.19		.02	2.1	–	1.0	VEG
46	3.2	.34		.12	2.3	–	–	
50	3.8	.63		45	2.3	–	–	
54	3.9	.73		.56	2.3	–	–	
58	3.7	.79		.70	2.3	–	–	
62	3.7	.78		.65	2.3	–	–	
66	3.7	.93		.74	2.3	–	–	
70	3.5	.98		.68	4.2	25	–	
74	3.15	.88		.66	4.2	25	–	
78	2.9	90		.59	4.2	25	–	
82	3.7	1.03		.64	4.2	25	–	
86	2.6	.86		.76	4.2	25	–	
90	2.7	.88		.61	4.2	25	–	
94	2.5	.80		.57	4.2	25	–	
98	2.4		.66		4.2	25	–	
102	2.4		.57		4.2	25	–	
106	2.8	.51		.02	2.4	25	–	
110	3.1	.26		.03	2.1	–	10	VEG
114	1.0		.27		2	–	–	
116	0		0		2.1	–	–	
118.3								

WP = 1.0

4 S Gr

5 L Fine

6 S Co

7 L Co

SP. 6 — SPRAGUE RIVER — TR-7 — DEPTH AND VELOCITY — 10-5-00

STA	DEPTH	V.2	V.6	V.8	SUBST	% ?B.	COVER	COMMENT		
113	0		0		2.1	—	—	LWE ~~RWE~~	WP = 1.0	
110	1.7		.17		2.1	—	1.0	VEG		
106	2.8	.24		.08	2.4	50	—			4 S [illegible]
102	3.1	.47		.52	2.4	25	—			5 L [illegible]
98	3.5	.60		.56	2.4	25	—			6 S [illegible]
94	3.4	.81		.66	2.4	25	—			7 L [illegible]
90	3.1	.85		.73	2.4	25	—			
86	3.0	.98		.79	2.4	25	—			
82	2.9	.93		.86	2.4	25	—			
78	2.8	.90		.76	2.4	25	—			
74	2.7	.96		.69	2.4	25	—			
70	2.7	.91		.58	2.4	25	—			
66	2.8	.92		.63	2.3	—	—			
62	3.1	.92		.66	2.3	—	—			
58	3.1	.77		.73	2.3	—	—			
54	3.2	.87		.64	2.3	—	—			
50	3.0	.77		.58	2.3	—	—			
46	3.25	.56		.08	2.3	—	1.0	VEG		
42	3.2	.55		.03	2.1	—	1.0	VEG		
38	3.2	.14		.03	2.1	—	1.0	VEG		
34	2.0		0		2.1	—	1.0	VEG		
30	1.4		.12		2.1	—	1.0	VEG		
RWE 28	.8		.16		2.1	—	1.2	UCB - 2.2 FT		

SP-6 TR-8 SPRAGUE RIVER DEPTH AND VELOCITY 10.5.00

STA	DEPTH	V.2	V.6	V.8	SUBST.	% Embedd.	Cover	COMMENTS		
22.5	0		0		2.1	—	—	RWE	WP = 1.0	
25	1.1		-.01		2.1	—	1.0	VEG		
29	1.4		0			—	1.0			
33	1.6		-.03			—	1.0			
37	2.6	.42		-.04		—	1.0			
41	2.8	.43		0		—	1.0			
44	3.75	.63		.49	2.3	—	—			
48	3.0	.72		.27	2.3	—	1.0	VEG		
52	2.7	.78		-.05	2.1	—	1.0	VEG		
56	2.7	.79		.62	2.3	—	—			
60	2.6	.84		.61	2.3	—	—			
64	2.5	.88		.56	2.3	—	—			
68	2.7	.86		.68	2.4	25	—			
72	2.9	.85		.73	2.4	25	—			
76	3.3	.85		.68	2.4	25	—			
80	3.4	.90		.82	2.4	25	—			
84	3.5	.91		.78	2.4	25	—			
88	3.9	.88		.75	4.2	25	—			
92	4.1	.75		.70	4.2	25	—			
96	4.2	.57		.52	2.3	—	—			
100	4.0	.49		.27	2.3	—	—			
104	3.3	.44		-.02	2.1	—	1.0	VEG		
106	2.0		.08		2.1	—	1.0	VEG		
110	0		0		1.2	—	—	LWE		

SP-6 TR-9 — SPRAGUE RIVER DEPTH AND VELOCITY — 10.5.00

STA	DEPTH	V 2	V 6	V 8	SUBST	% Embedd.	Cover	Comments
23.9	0		0		1.2	—	—	RWE
25	.3		-.03		1.2	—	1.0	VEG
30	1.0		-.03		2.1	—	1.0	VEG
34	1.3		.02		2.1	—	1.0	VEG
38	2.55	.22		-.08	2.1	—	1.0	VEG
42	2.7	.43		.36	2.3	—	—	
46	2.7	.57		.51	2.3	—	—	
50	2.7	.68		.50	2.3	—	—	
54	2.7	.70		.63	2.3	—	—	
58	2.9	.71		.60	2.3	—	—	
62	3.0	.73		.65	2.3	—	—	
66	3.1	.72		.74	2.3	—	—	
70	3.5	.76		.73	(	—	—	
74	3.9	.76		.76	↓	—	—	
78	4.1	.75		.69	4.2	25	—	
82	4.0	.87		.76	4.2	50	—	
86	4.3	.81		.77	4.2	25	—	
90	4.5	.64		.50	4.2	25	—	
94	4.3	.65		.48	2.4	50	—	
98	4.1	.46		.36	2.3	—	—	
102	3.8	.29		0	2.1	—	1.0	VEG
106	1.6		.04		2.1	—	1.0	VEG
109	.6		.01		2.1	—	1.0	VEG
110.2	0		0		2.1	—	—	LWE

WP = 1.0

SP-6 TR-10 — SPRAGUE RIVER — DEPTH & VELOCITY — 10.5.00

STA	DEPTH	V.2	V.6	V.8	SUBST	% Embdd.	Cover	Comments
								RWE HP = 1.0
25.8	0		0		2.1			
27	.35		0		2	/	/	
31	.8		.01		2.1	/	/	VEG
35	2.0		.02		2.1	/	1.0	VEG
39	3.0	-.09		-.01	2.1	/	1.0	
43	3.0	.43		.05	2.1	/	1.0	
47	3.0	.50		.38	2	/	/	
51	3.0	.58		.48	2	/	/	
55	3.35	.60		.57	2	/	/	
59	4.15	.56		.52	2.4	75	/	
63	4.9	.62		.64	2.4	75	/	
67	5.5	.66		.74	4.2	50	/	
71	6.3	.69		.62	4.2	25	/	
75	6.6	.66		.55	4.2	25	/	
79	6.6	.72		.55	5.2	25	/	
83	6.6	.44		.63	5.2	25	/	
87	6.8	.33		.31	5.2	25	/	
91	6.4	.11		.18	5.2	25	/	
95	6.1	-.06		-.02	2	/	/	
99	4.5	-.03		-.04	2.1	/	1.0	
103	2.1		-.04		2.1	/	/	
105	.7		.08		2.1	/	/	
108.2	0		0		2.1	/	/	LWE

SP-6	SPRAGUE RIVER 10/5/2000
NOTE:	DEPTH + VELOCITY DATA for TR-1, TR-2, ad TR-3 ALONG WITH PHOTO LOG WERE RECORDED in SP-6 BOOK # 1

SP-6	SPRAGUE RIVER 10-5-2000		NR. BEATTY	
	LEVEL LOOP			
STA	BS	HI	FS	ELEV
BM	4.64	104.64		100.00
TR-10			6.70	97.94
TR-9			6.35	98.29
TR-8			4.83	99.81
TR-7			4.96	99.68
TR-6			5.81	98.83
TR-5			7.56	97.08
TR-4			7.62	97.02
TR-3			6.00	98.64
TR-2			5.00	99.64
TR-1			5.19	99.45
(TP)				
TR-1	3.50	102.95		99.45
TR-2			3.31	99.64
TR-3			4.31	98.64
TR-4			5.94	97.01
TR-5			5.88	97.07
TR-6			4.12	98.83
TR-7			3.27	99.68
TR-8			3.14	99.81
TR-9			4.66	98.29
TR-10			5.01	97.94
BM			2.95	100.00
				WMS

SP-C SPRAGUE RIVER NR BEATTY

10-5-2000

WATER SURFACE ELEVATIONS

STA	BS	HI	FS	ELEV	ROD
BM	3.59	103.59		100.00	
TR-10 LB			8.88	95.06	0.35
RB			9.22	95.07	0.70
TR-9 LB			9.28	95.06	0.75
RB			9.38	95.06	0.85
TR-8 LB			9.29	95.06	0.76
RB			9.97	95.05	1.43
TR-7 LB			9.03	95.05	0.49
RB			9.98	95.05	1.44
(TP) TR-6 HP	5.30	104.13		98.83	
TR-6 LB			9.26	95.05	0.18
RB			10.53	95.05	1.45
TR-5 LB			9.64	95.05	0.56
RB			11.25	95.05	2.17
(TP) TR-4 HP	5.54	102.55		97.01	
TR-4 LB			8.08	95.05	0.58
RB			9.64	95.05	2.14
TR-3 LB			7.69	95.05	0.19
RB			8.43	95.04	0.92
TR-2 LB			7.89	95.04	0.38
RB			8.59	95.04	1.08
TR-1 LB			7.89	95.04	0.38
RB			8.82	95.03	1.30

1331.02.1720 – F:6

Sprague R.
1.5 miles upstream
of Beatty

WESCO

WEATHERPROOF
LEVEL BOOK

550-530

SP-6

BOOK 1

SP-6 SPRAGUE RIVER
10-5-2000

PHOTO LOG

	PHOTO #	COMMENT
19	~~18~~	TR 9 – LB to RB
20	~~19~~	TR 8 – " "
21	~~20~~	TR 1 – " "
22	~~21~~	TR 7 – " "
23	~~22~~	TR-6 " "
24	~~23~~	TR-6 US → DS
	~~24~~	END of ROLL
NEW ROLL	1	TR-5 LB to RB
	2	TR-2 LB to RB
	3	TR-3 LB to RB
	4	TR-4 LB to RB
	5	TR-4 LB LOOKING DS

SP-6 TR-1 10/5/00

STA	DEPTH	V.2	V.6	V.8	SUB	%E	COVER	COMMENT
1458	∅		∅					LEW
145	0.5		∅		1.2	–	1	
140	1.45		∅		1.3	–	–	
135	1.1		0.55		3.1	–	–	
130	0.9		0.66		4.3	25	–	
125	0.85		0.64		4.3	25	–	
120	0.9		0.57		4.3	25	–	
115	1.0		0.64		4.3	25	–	
110	1.35		0.57		4.1	25	–	
105	1.7		0.78		4.1	25	–	
100	1.9		0.83		4.1	25	–	
95	2.1		0.82		4.1	25	–	
90	2.2		0.91		4.1	25	–	
85	2.2		0.50		4.3	25	–	
80	2.2		0.56		4.3	25	–	
75	2.1		0.62		4.3	25	–	
70	2.1		0.91		4.3	25	–	
65	2.0		0.60		4.3	25	–	
60	2.0		0.38		4.3	25	–	
55	1.95		0.42		4.3	25	–	
50	2.0		0.91		4.1	25	1	
45	1.7		0.02		1.2	–	1	
40	1.1		0.10		1.2	–	1	
35	0.6		0.12		3.1	–	–	
33	∅		∅		1.3	–	–	REW
1.0	–		–		–	–	–	REP

1 VEG
2 SILT
3 SAND
4 SGRAV
5 LGRAV
6 SCOB
7 LCOB
8 BLD
9 BED

COVER
1 INST
2 UCB
3 OVR
4 COMB
– NO COVER

SWOFFER
(KLAMATH TRIBE)

SR-6

STA	DEPTH	V.7	V.6	V.8	SUB	%OE	COV	COMMENT
40	0		0		1	—	—	REW
42	0.55		0		1.2	—	1	
44	1.2		0		1.2	—	1	INVERT
48	1.7		0		1.2	—	1	"
52	2.3		0.16		1.3	—	1	"
56	2.55	0.59	0.19	0.47	4.3	40	—	
60	2.4		0.66		4.3	40	—	
64	2.5	0.93		0.19	4.5	40	—	
68	2.5	1.02		0.20	4.3	40	—	
72	2.6	1.08		0.83	4.3	40	—	
76	2.7	1.06		0.40	4.3	40	—	
80	2.7	0.53		0.21	4.3	40	—	
84	2.7	0.37		0.21	4.3	40	—	
88	2.75	0.39		0.49	4.3	40	—	
92	2.7	0.72		0.17	4.3	40	—	D/S of VEG
96	2.5	0.40		0.45	4.3	25	—	
100	2.35		0.41		4.3	25	1	
104	2.9	0.28		0.01	1	—	1	VEG AT BOTTOM
108	3.0	0.31		0.18	1	—	1	
112	2.55	0.54		0.01	1.3	—	1	
116	2.35		0.52		4.3	25	1	
120	2.2		0.27		1.4	25	1	
124	2.0		0.09		4.3	25	1	
128	1.8		0.25		1.2	—	1	
132	1.3		0.01		1.2	—	1	
136	0.03		0		1.2	—	1	
136	0		0		1.2	—	—	LEW

10/5/00

STA	SP. 6 DEPTH	V.E.	TR-3 VEG.	V.E.	SUB	%E	COV	COMMENT		10/5/00
42	0		0					REW		R.W.P = 1.0
44.5	0.7		0		1.2	—	1	IN	VEG.	
46	1.45		0		1.2	—	1	"		
50	2.6	0		0	1.2		1	"		
54	3.5	0.35		0.03	1.4	50	1	BOTTOM in	VEG.	
58	3.25	0.49		0.52	4.2	50	—			
62	3.25	0.48		0.66	4.2	50	—			
66	3.25	0.47		0.66	4.2	50	—			
70	3.2	0.50		0.59	4.2	50	—			
74	3.2	0.54		0.64	4.2	50	—			
78	3.3	0.60		0.65	4.2	50	—			
82	3.3	0.47		0.70	4.2	50	—			
86	3.3	0.42		0.60	4.2	50	—			
90	3.5	0.40		0.66	4.2	50	—			
94	3.5	0.51		0.68	4.2	50	—			
98	3.6	0.70		0.49	4.2	50	—			
102	3.60	0.60		0.43	4.1	50	1			
106	3.55	0.47		0.03	1	50	1	BOTTOM in	VEG.	
110	3.6	0.25		0.20	4.1	50	1			
114	3.7	0.20		0.01	1	—	1	IN	VEG.	
118	2.25		0.05		1	—	1	in	VEG.	
122	0.75		0.08		2.1	—	1			
124.1	0		0		1.2	—	—	LEW		

SPRAGUE RIVER - 6 sp-6

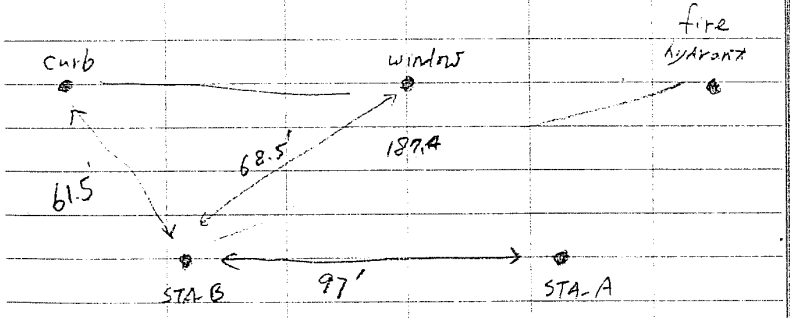
06/10/02

MRG
cMH

Equipment Test

Nikon - AP-7 SN = 316181

	HI	F.S	EL
STA-A	~~100~~ 103.00		
fire hydrant		3.00	~~98.5~~
window		4.49	98.51
curb		4.08	98.92
STA-B curb	103.06	4.14	98.92
window		4.54	98.52
fire hydrant		3.05	100.01



6/10/02 Velocity meter test/Comparison

2 min reading every 5 sec

Marsh McBirney	
0.67	0.57
0.66	0.57
0.65	0.61
0.64	0.66
0.63	0.66
0.62	0.65
0.61	0.67
0.60	0.70
0.59	0.69
0.58	0.64
	0.61
	0.56
	0.58
0.59	0.61
0.61	0.61
0.61	0.62
0.65	0.64
0.68	0.66
0.69	0.61

Ave = 0.63 ft/s

#4441 #3 propeller
swoffer calib 186
reading every 30 seconds

0.64
0.67
0.61
0.74
0.63
0.57

ave = 0.64 ft/s

at same spot, but not measured at the same time

Marsh McBirney		swoffer	#4441 EE3
0.32	(total 3 of 30 sec)	0.26	(total 1.5 min)
0.34		0.36	
0.32		0.24	
0.35		0.28	
0.36			

ave = 0.34

at weir → two meters placed side by side

Marsh McBirney
V = 1.30 ft/s

swoffer
V = 1.31 ft/s

Sprague R SP-6

PHARSEN site

Sprague R sp-6

Previous HP Elevations
(From 10/5/2000 survey)

STA	Eleva
TR-1	99.45
TR-2	99.64
TR-3	98.64
TR-4	97.01
TR-5	97.07
TR-6	98.83
TR-7	99.68
TR-8	99.81
TR-9	98.29
TR-10	97.94

Previous WSE

STA	Eleva	date	
TR-10	95.66	06/29-00	(mid)
TR-10	96.03	05/19-00	(high)
TR-10	95.06	10/05-00	(Low)

sp-6

Sprague R. June 13, 2002

Level Loop

STA	BS	HI	FS	Eleva	
BM	4.30	104.30		100.00	
HP 10			6.36	97.94	✓
9			6.01	98.29	✓
8			4.56	99.84	
7			4.62	99.68	✓
6			5.46	98.84	
4			7.27	97.03	
3			5.65	98.65	
2			4.65	99.65	
1			4.84	99.46	
TP 1	4.75	104.21		99.46	
2			4.58		
3			5.57		
4			7.19	97.02	
6			5.38		
7			4.54		
8			4.48		
9			5.92		
10			6.28		
BM			4.21	100.00	

sp-6 Sprague R. June 13, 2002

Water Surface Elevations

STA	BS	HI	ES	Elevation	Rod
BM	4.10	104.10		100.00	
TR 10 R			7.34	96.76	
L	4.24	104.24	7.46	96.78	
TR-9 R			7.34	96.76	
L		104.24	7.46	96.78	
TR-8 R			7.34	96.76	
L		104.24	7.46	96.78	
TR-7 R			7.34	96.76	
L		104.24	7.45	96.78	
TR-6 R			7.35	96.75	
L		104.24	7.47	96.77	
TR-6 HP			5.27	98.83	
TR-6 HP (FP)	5.56			98.83	
		104.39			
TR-5 R			7.64	96.75	
L		104.24	7.48	96.76	

sp-6 Sprague R. June 13, 2002

Water Surface Elevations

STA	BS	HI	FS	Elevation	Rod
(FP) TR-6 HP	5.67	104.50		98.83	
TR-4 R			7.75	96.75	
L		104.24	7.48		
TR-3 R		104.50	7.75	96.75	
L		104.24	7.48		
TR-2 R			7.76	96.74	
L		104.24	7.49		
TR-1 R			7.77	96.73	
L		104.24	7.50		
TR-2 HP			4.87	99.63	
1st wise BM			4.23		
97.5					
97.7					

SP-6

June 13, 2002

Photo log

#4 TR-10 looking Rt - Lt Camera #1

#3 TR-9 " (pool)

#2 TR-8 "

#1 TR-7 "

#27 TR-6 " Lt - Rt camera #2

SR-6

Sprague R. June -13, 2002

TR-1 D & V

meter = 4441

	STA	Depth	V_1	V_2	
REW	20.6	0	0	0	
	24.0	0.7	0.2		
	27.0	1.1	0.2		
	30.0	2.05	0.2		
	33.0	2.70	0.44	.70	
	38.0	3.05	0.90	.10	} Aq Veg affecting bottom velocity
	45.0	3.30	.35	.92	}
	50.0	3.50	1.0	.74	
	55.0	3.5	.95	.82	
	60.0	3.5	.90	.90	
	65.0	3.2	.87	.74	
	70.0	3.2	.05	.72	Aq Veg
	75.0	3.15	.80	[illegible]	Aq veg
	80.0	3.5	.40		} Aq Veg (2.5 ft dp) unable to measure .2V)
	85.0	3.65	.50		}
	90.0	3.65	.63	0	Aq. Veg
	95.0	3.55	.65	.05	
	100.0	3.25	.80	.05	
	105.0	3.0	.72	.05	
	110.0	2.8	.70		Veg
	115.0	2.55	.50		
	120.0	2.4	.40		

Sprague Riv. June 13, '02

TR-1 D & V

	STA	Depth	V_1	V_2
	125.0	2.40	.4	
	130.0	2.40	.4	
	135.0	2.50	.7	
	140.0	2.60	.62	0 ← Bottom V (Veg)
	145.0	1.85	.15	
	150.0	.3	0	
LEW	150.7	0	0	

14

SP-6 | Sprague R. | 6/13/02

TR - 10

	STA	Depth	V_1	V_2
	24.0			
	25.0			
PDE	~~25.3~~ 13	6		
	~~27.0~~ 14	1.5	0	
15	~~31.0~~	1.9	0	
19	~~35.0~~	2.5	0.17	
23	~~39.0~~	2.9	0.09	0.14
27	~~43.0~~	3.7	0.33	0.31
31	~~47.0~~	4.6	.36	0.39
35	~~51~~	4.7	0.47	0.48
39	~~55~~	4.7	0.52	0.55
43	~~59~~	5.3	0.56	0.56
47	~~63~~	6.1	0.58	0.56
51	~~67~~	7	0.53	0.51
55	~~71~~	7.5	0.52	0.50
59	~~75~~	7.7	0.60	0.60
63	~~79~~	8	0.30	0.47
67	~~83~~	8	0.45	0.53
71	~~87~~	8	0.56	0.51
75	~~91~~	8	0.27	0.26
79	~~95~~	7.9	0.05	0.08
83	~~99~~	6.5	-0.01	-0.01

15

SP-6 | Sprague R

TR - 10

	STA	Depth	V_1	V_2
87	~~103~~	5.0	-0.01	-0.03
91	~~105~~	1.8	0.01	
95	~~108~~	0.6	0.00	
PDE 964	~~110.4~~	0.1	0.00	
	111			
	112			
	113			

SP-6 Sprague R.

TR-9

	STA	Depth	V_1	V_2
EWS	21.0 ~~10.2~~ ~~22.1~~	0	0.0	
12	~~25~~	1.8	0.0	
16	~~30~~	2.2	0.11	
20	~~34~~	2.6	0.21	0.20
24	~~38~~	2.9	0.20	0.22
28	~~42~~	3.5	0.22	0.24
32	~~46~~	3.9	0.39	0.42
36	~~50~~	4	0.35	0.42
40	~~54~~	4.4	0.45	0.47
44	~~58~~	5.94	~~0.40~~ 0.52	0.51
48	~~62~~	4.5	0.48	0.52
52	~~66~~	4.8	0.58	0.57
56	~~70~~	5	0.57	0.58
60	~~74~~	5.6	0.63	0.62
64	~~78~~	5.7	0.56	0.56
68	~~82~~	5.9	0.64	0.63
72	~~86~~	6	0.62	0.62
76	~~90~~	5.8	0.63	0.63
80	94	5.6	0.62	0.62
84	98	5.6	0.58	0.58
88	102	5.8	0.41	0.44
92		5.5	0.35	0.25

SP-6 Sprague R.

TR-9

	STA	Depth	V_1	V_2
96	~~106~~	4.3	0.07	0.13
100	~~109~~	2.5	0.08	0.08
EWS	~~111.2~~ 103.1	1.2	0.0	

SP-6 Sprague R.
TR-8

	STA	Depth	V_1	V_2
	6.2			
LWE	~~21.5~~	0.6	0.0	
8	~~25~~	1.8	0.04	
12	~~29~~	2.7	0.08	0.05
16	~~35~~	2.6	0.11	0.14
20	~~37~~	3.4	0.16	0.14
24	41	4.6	0.27	0.28
28	44	4.8	0.41	0.45
32	48	4.6	0.46	0.46
36	52	3.8	0.46	0.41
40	56	3.7	0.51	0.51
44	60	4.3	0.41	0.50
48	64	4.2	0.62	0.63
52	68	4.4	0.50	0.61
56	72	4.5	0.64	0.64
60	76	4.7	0.62	0.64
64	80	5.2	0.73	0.74
68	84	5.2	0.75	0.75
72	88	5.5	0.74	0.76
76	92	5.9	0.65	0.67
80	96	6	0.65	0.67
84	100	5.9	0.64	0.51
88		5.7	0.31	0.29

SP-6 Sprague R.
TR-8

	STA	Depth	V_1	V_2	
92	~~104~~	4	0.12	0.14	weed
96	~~108~~	1.5	-0.03		weed
100	~~110~~	0.7	0.00		weed
104	~~[illegible]~~	0.2	0.0		weed
LWE	106.2	0	0		weed

20sp-6

SPRAGUE RIVER

TR-7

	STA	Depth	V_1	V_2	sub
RWE	12.2	1.6	0.0		
	14	1.4	0.08		
	18	3.7	0.08	0.11	
	22	4.4	0.10	0.19	
	26	5.0	0.29	0.29	
	30	4.7	0.41	0.53	
	34	4.9	0.32	0.44	
	38	5.1	0.45	0.50	
	42	5.0	0.53	0.58	
	46	4.9	0.53	0.58	
	50	4.7	0.53	0.63	
	54	4.5	0.61	0.65	
	58	4.4	0.65	0.68	
	62	4.5	0.65	0.71	
	66	4.6	0.73	0.74	
	70	4.6	0.73	0.77	
	74	4.8	0.74	0.75	
	78	5.0	0.75	0.74	
	82	5.4	0.62	0.68	
	86	5.3	0.50	0.62	
	90	4.6	0.40	0.32	
	94	4.3	0.04	0.20	

	STA	Depth	V_1	V_2	sub
	98	2.1	0.08		weed
	102	0.2	0		
LWE	102.7	0	0		

SPRAGUE RIVER

SP-6 TR-6

	STA	Depth	V_1	V_2	sub
RWE	9.8	0.9	0		Cut bank
	12	2.5	0.06		
	16	~~4.5~~ 3.5	0.01	0.06	
	20	4.1	0.20	0.29	
	24	5.0	0.18	0.32	
	28	5.6	0.35	0.46	
	32	6.0	0.47	0.57	
	36	5.9	0.55	0.56	
	40	5.7	0.62	0.60	
	44	5.5	0.54	0.60	
	48	5.2	0.58	0.65	
	52	4.9	0.62	0.74	
	56	4.7	0.65	0.74	
	60	4.5	0.60	0.77	
	64	4.4	0.69	0.75	
	68	4.3	0.71	0.84	
	72	4.4	0.72	0.75	
	76	~~3.0~~ 4.0	0.65	0.70	
	80	3.8	0.61	0.60	
	84	4.2	0.50	0.57	
	88	4.4	0.34	0.36	

STA	depth	V_1	V_2	sub
92	3.1	0.12	0.19	
96 92	[illegible]	0		[illegible]
97.3	0	0		

SP-6 SPRAGUE RIVER

TR-5

	STA	Depth	V_1	V_2	sub
RWE	13	0	0		dead wood
	20	4.6	0.01	0.29	
	24	5.4	0.34	0.41	
	28	6.2	0.34	0.40	
	32	6.4	0.38	0.48	
	36	6.2	0.43	0.57	
	40	6.1	0.58	0.59	
	44	6.1	0.57	0.66	
	48	6.1	0.62	0.66	
	52	5.7	0.63	0.65	
	56	5.2	0.63	0.78	
	60	4.9	0.63	0.71	
	64	4.5	0.61	0.76	
	68	4.5	0.51	0.68	
	72	4.6	0.60	0.65	
	76	4.8	0.30	0.39	
	80	5.1	0.40	0.48	
	84	5.0	0.24	0.31	
	88	3.9	0.15	0.21	
	92	1.3	0.05		
LWE	95.0	0	0		

26

sp-6

SPRAGUE RIVER

TR-4

DATE

	STA	depth	V_1	V_2	sub
EWE	11.0	0	0		dead wood
	14	0.7	0		veg
	18	2	0.14		veg
	22	3.5	0.00	0.21	in veg
	26	4.5	0.31	0.45	
	30	5.1	0.33	0.49	
	34	5.3	0.60	0.57	
	38	5.4	0.57	0.59	
	3942	5.5	0.64	0.66	
	46	5.6	0.51	0.76	
	50	5.7	0.69	0.82	
	54	5.2	0.68	0.73	
	58	5.7	0.62	0.80	
	62	5.4	0.61	0.94	
	66	5.2	0.35	0.80	
	70	5.2	0.36	0.68	
	74	5.3	0.44	0.69	
	78	5.4	0.43	0.45	
	82	5.5	0.11	0.50	
	86	5.4	0.12	0.47	
	90	4.8	0.04	0.26	

27

	STA	depth	V_1	V_2	sub
	94	1.9	0.09		
	98	0.2	0		wood
EWE	98.3	0	0		wood

28

SP-6

SPRAGUE RIVER

TR-3

	STA	depth	V_1	V_2	
RWE	28	0	0		weed
	40	1.5	0		weed
	45	3.4	0.01	0.09	
	50	5.1	0.11	0.29	
	55	4.9 5.9	0.22	0.48	
	60	4.9	0.51	0.60	
	65	4.9	0.55	0.75	
	70	4.8	0.58	0.67	
	75	4.9	0.65	0.84	
	80	4.9	0.62	0.65	
	85	5	0.61	0.71	
	90	5	0.63	0.69	
	95	5	0.49	0.63	
	100	5	0.23	0.55	
	105	5.1	0.44	0.70	
	110	5	0.32	0.48	
	115	4.6	0.11	0.41	
	120	2.7	0.16	0.27	
	125	1.85	0.02		veg
LWE	127.5	0	0		

29

SP-6 SPRAGUE RIVER

TR-2

RWE	STA	depth	V_1	V_2	sub
RWE	31	0	0		
	35	1.9	0.11		curved
	40	3.2	0.05	0.30	veg
	45	4.1	0.06	0.54	
	50	4.3	0.57	0.74	
	55	4.2	0.69	0.75	
	60	4.2	0.71	0.82	
	65	4.3	0.76	0.82	
	70	4.4	0.76	0.78	
	75	4.4	0.75	0.85	
	80	4.4	0.40	0.64	
	85	4.5	0.22	0.72	
	90	4.25	0.02	0.66	
	95	4.2	0.02	0.74	
	100	4.8	0.21	0.55	
	105	4.35	0.40	0.65	
	110	4.0	0.37	0.47	
	115	3.8	0.04	0.31	
	120	3.6	0.09	0.32	
	125	3.30	0.05	0.25	
	130	2.1	0.05		in veg
LWE	133.2	0	0		

SR-6

Sprague R.   June -13, 2002

TR-1   D & V

meter = 4441

	STA	Depth	V_1	V_2	
REW	20.6	0	0		
	24.0	0.7	0.2		
	27.0	1.1	0.2		
	30.0	0.05	0.2		
	33.0	2.70	0.44	.70	
	38.0	3.05	0.90	.10	} Ag Veg affecting bottom velocity
	45.0	3.30	.35	.92	
	50.0	3.50	1.0	.74	
	55.0	3.5	.95	.82	
	60.0	3.5	.90	.90	
	65.0	3.2	.87	.74	
	70.0	3.2	.05	.72	Aq Veg
	75.0	3.15	.80	~~.50~~	Aq veg
	80.0	3.5	.40		} Aq Veg (2.5 ft dp) unable to measure .2V)
	85.0	3.65	.50		
	90.0	3.65	.63	0	Aq. Veg
	95.0	3.55	.65	.05	
	100.0	3.25	.80	.05	
	105.0	3.0	.72	.05	
	110.0	2.8	.70		Veg
	115.0	2.55	.50		
	120.0	2.4	.40		

Sprague Riv.   June 13, '02

TR-1   D & V

	STA	Depth	V_1	V_2
	125.0	2.40	.4	
	130.0	2.40	.4	
	135.0	2.50	.7	
	140.0	2.60	.62	0 ← Bottom V (veg)
	145.0	1.85	.15	
	150.0	.3	0	
LEW	150.7	0	0	