

12-4-2009

Ex. 277-US-437

Mike Gagner
R2 Resource Consultants

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WM-7



"Rite in the Rain"
ALL-WEATHER
LEVEL BOOK
No. 310 F

4/14/04

"Rite in the Rain"
ALL-WEATHER WRITING PAPER



ALL-WEATHER
LEVEL BOOK

Name Mike Gagner
 Address R2 Resource Consultants
15250 NE 95 st
Redmond WA 98052
 Phone 425/556-1288
 Project 1418.01 PHAROSIM site

This book is printed on "Rite in the Rain" All-Weather Writing Paper - A unique paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather. For best results, use a pencil or an all-weather pen.

Specifications for this book:

| Page Pattern | | Cover Options | |
|--------------|------------|----------------|-----------------|
| Left Page | Right Page | Polydura Cover | Fabrifold Cover |
| Columnar | Columnar | Item No. 310 | Item No. 310F |

CONTENTS

| PAGE | REFERENCE | DATE |
|------|-----------|------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |
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WM-7

04/14/64

Habitat Unit Selection

(2, 4)
2000 X .2 = 400' pool unit #4
2050 X .4 = 800' con/grade unit #9

Transect Selection

Pool Unit #4 = 130' long
Run Unit #9 = 200' long

Pool Unit Random #s

4, 2, 8
130 X .2 = 26' 1/2 from start
130 X .4 = 52' "
130 X .8 = 104' "

Run Unit Random #s

1, 4, 8
200 X .1 = 20
200 X .4 = 80
200 X .8 = 160

WM-7

04/14/64

Crew: M Gagner

| In | Out |
|------|------|
| 9:10 | 1:00 |
| 5.6 | 0.80 |

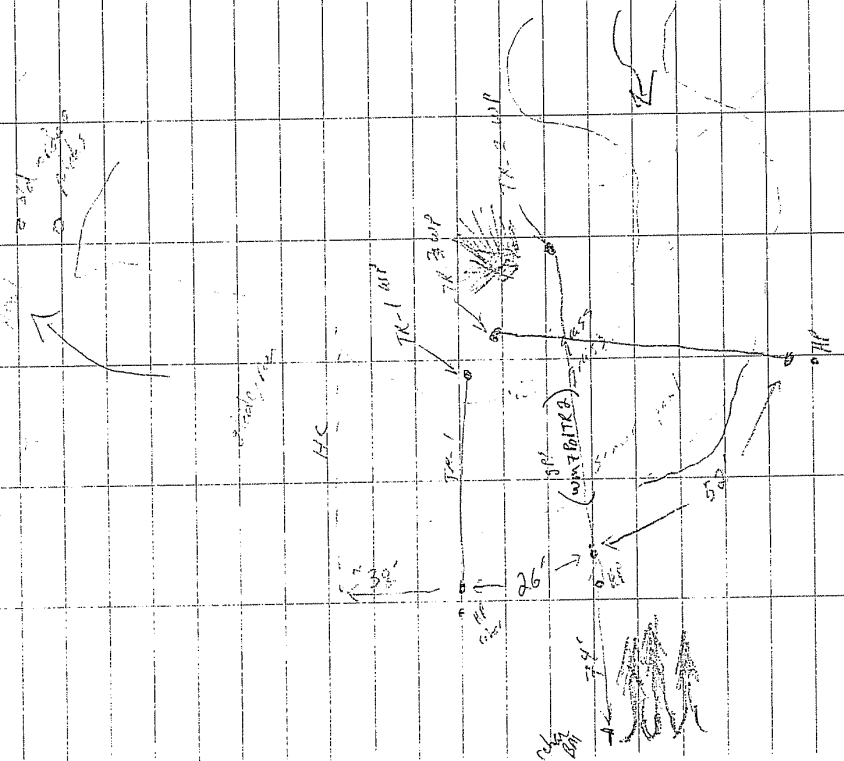
Equipment: Nilow sni

Marsh M-B-1mg Model 2000
SNI: 200506B

Direction: After crossing Klamath

March on Silver Lake Hwy turn right onto FS Rd 49. Follow Rd 49 for ~6.5 miles and look for Rd 4582 on right. Turn right onto 4582 and follow for 2.9 miles to 4-way intersection, turn left (blue/white flagging) and follow for ~2 miles along creek for and follow yellow timber sale signs. After ~2 miles look for Rd 497 on your right. Follow 497 for ~10th of mile to the river on your left. Look for small turnout/camping area

WM-7 Pool Unit Map 04/13/04



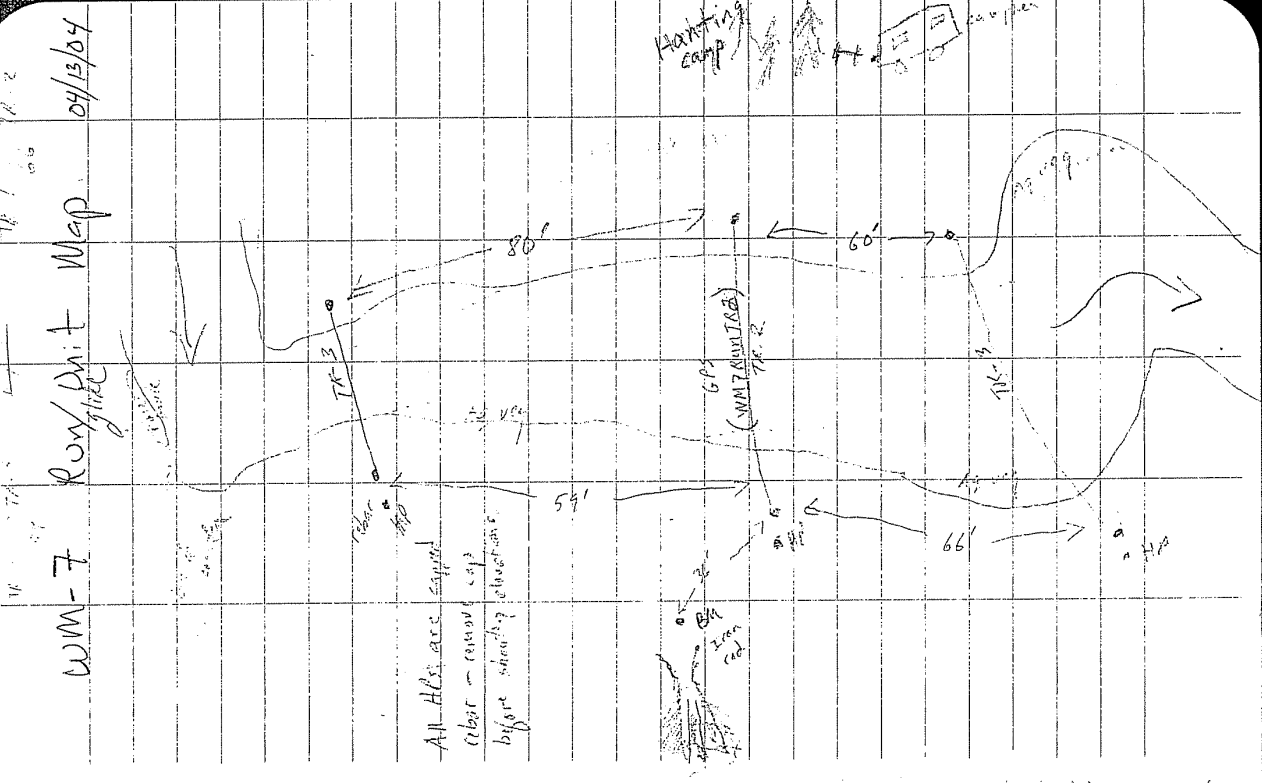
* All HPS are set back on left bank w/ 10' behind
w/ HPS & BM have scope caps - remove before shooting elevations

WM-7 Pool Unit 04/13/04

| STA | BS | HI | Loop FS | WS E Elevation |
|-----------|------|--------|-------------------------|----------------|
| BM | 3.65 | 103.65 | | 100.00 |
| TR-1 | | | 5.30 | 98.35 |
| TR-2 | | | 5.13 | 98.52 |
| TR-3 | | | 4.64 | 99.01 |
| TR-3 (TP) | 4.83 | | | 99.01 |
| TR-2 | | 103.84 | 5.32 | 98.52 |
| TR-1 | | | 5.49 | 98.35 |
| BM | | | 3.84 | 100.00 |
| TR-1 | | 103.84 | | |
| TR-1 | | | 7.70 | 96.14 |
| TR-2 | | | 7.67 | 96.17 |
| TR-3 | | | 7.65 | 96.19 |
| HC | | | 7.66 7.71 | 69.13 |

* Set channel and shot only on left bank #

| WWM-7 | Run/Glide Unit | Level | Loop & WSEs | Elevn |
|---------|----------------|-------|-------------|--------|
| STA BS | HT | FS | | 100.00 |
| BM 4.28 | | | | |
| TR-1 | | 4.94 | | 99.34 |
| TR-2 | | 5.43 | | 98.85 |
| TR-3 | | 4.97 | | 99.31 |
| IP | | | | |
| TR-3 | | 5.06 | | 99.31 |
| TR-2 | | | 104.37 | 98.85 |
| TR-1 | | 5.03 | | 99.34 |
| BM | | 4.37 | | 100.00 |
| TR-1 | | | 104.37 | 96.36 |
| TR-2 | | 8.10 | | 96.27 |
| TR-3 | | 8.07 | | 96.30 |



WWM-7 Discharge 04/13/04

| STA | Depth | Vel. | Notes |
|------|-------|-------------|------------------|
| 14.0 | 0.0 | | edge |
| 16.0 | 0.6 | 0.0 | grass/vel. break |
| 18.0 | 2.1 | 0.66 | |
| 19.5 | 2.5 | 0.75 / 0.80 | |
| 21.0 | 2.5 | 0.09 / 0.85 | |
| 23.0 | 2.2 | 1.14 | |
| 25.0 | 2.0 | 1.09 | |
| 27.0 | 2.0 | 1.20 | |
| 29.0 | 1.8 | 1.27 | |
| 31.5 | 1.6 | 1.40 | |
| 34.0 | 1.6 | 1.22 | |
| 36.5 | 1.6 | 1.32 | |
| 39.0 | 1.50 | 1.27 | |
| 41.5 | 1.6 | 1.39 | |
| 44.0 | 1.5 | 1.30 | |
| 46.5 | 1.6 | 1.17 | |
| 49.0 | 1.7 | 1.06 | |
| 51.5 | 1.5 | 0.86 | |
| 54.0 | 1.5 | 0.63 | |
| 56.5 | 1.5 | 0.55 | |
| 59.0 | 1.4 | .39 | edge grass |
| 60.5 | .70 | 0.0 | grass/vel. break |
| 62.0 | .10 | 0.0 | " |
| 65.0 | .20 | 0.0 | " |

WWM-7 Photo Log 04/13/04

| Photo # | Description |
|---------|-------------------------------|
| #20 | Looking w/s from bridge |
| #19 | H/Lt → RT |
| #18 | TR-1 Lt → RT |
| 17 | TR-2 " |
| 16 | TR-3 " |
| 15 | Looking w/s from above |
| 14 | BM Tree |
| 13 | Looking w/s from below unit |
| 12 | " across TR-1 Rt → Lt |
| 11 | " TR-2 " |
| 10 | " TR-3 " |
| 9 | " w/s from above unit |
| 8 | " @ BM & tree (bed post road) |

wm-7 Discharge Continue

| STA | Depth | Vel. | Notes |
|------|-------|------|------------------|
| 67.0 | .40 | 0.0 | grass/vel. break |
| 69.0 | .20 | 0.0 | " |
| 71.0 | 0.0 | 0.0 | edge |

WM-7



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No. 310 F

6/26/04



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Name Mike Gagner

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15250 NE 95 st

Redmond, WA 98052

425/556-1288

Phone

Project 1418.01 PHAROSIN SITE

This book is printed on "Rite in the Rain" All-Weather Writing Paper - A unique paper created to shed water and enhance the written image. It is widely used throughout the world for recording critical field data in all kinds of weather. For best results, use a pencil or an all-weather pen.

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| CONTENTS | REFERENCE | DATE |
|----------|-----------|------|
| | | |
| | | |
| | | |
| | | |
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6/26/04

WM-7

Crew: Glen Anderson
Marcus APPY

Sunny Warm (High 80°F)

Equip: Nikon AP-7 Level
Prop. 3A
Swoffer 3602

| | | |
|------|--------|--------|
| | IN | OUT |
| Time | 9:30am | 5:00pm |
| SG | 6.0 | 6.0 |

Lump HC @ 61.55

6/26/04

WM-7

Level Loop Pool

| STA | BS | HI | FS | ELEV | Notes |
|----------|------|--------|------|--------|-------|
| BM | 4.21 | 104.21 | | 100.00 | |
| TR-1 | | | 5.85 | 98.36 | |
| TR-2 | | | 5.69 | 98.52 | |
| TR-3 | | | 5.20 | 99.01 | |
| (TP) | | | | | |
| TR-3 | 5.33 | 104.34 | | | |
| 4.13 | | | | | |
| TR-2 | | | 5.82 | 98.52 | |
| TR-1 | | | 5.99 | 98.35 | |
| BM | | | 4.34 | 100.00 | ✓ |
| 100' w/s | | | 8.81 | 95.53 | WSE |
| 60' o/s | | | 8.87 | 95.47 | WSE |

(measured on L. Bank)

(measured @ center)

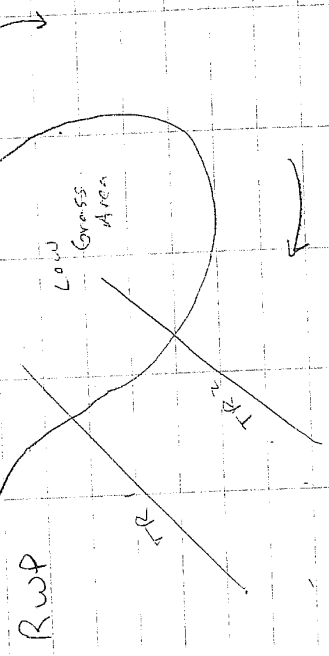
| WM-7 | 6/26/04 | TR ↓ | Bank | Survey |
|-------|---------|--------|------|--------|
| Pool | | | | |
| STA | BS | HI | FS | ELEV |
| 54.85 | | 104.34 | 6.29 | 100 |
| 51 | | | 6.34 | 100 |
| 50 | | | 6.54 | 100 |
| 49 | | | 8.44 | 3/2 80 |
| 48.4 | | | 8.79 | 2/3 80 |
| — | | | 8.86 | — |
| — | | | 8.85 | — |
| 9.4 | | | 8.80 | 1 100 |
| 6.0 | | | 8.46 | 1 100 |
| 1.0 | | | 7.54 | 1 100 |
| -9.0 | | | 6.95 | 1 100 |

54.85 LWP

Notes
LWP ON TOP of grass bank

TOE of bank

WSE - L
WSE - R



WM-7 6/26/04

POOL TRI Discharge

| STA | D | V | Sub p/s | % cover | Notes RWE |
|------|------|------|------------|---------|--------------|
| 10.1 | 0 | 0 | 2/4 | 60 | |
| 11 | 0.1 | 0 | 2/4 | 60 | 2 |
| 12 | 0.8 | 0 | 2/4 | 60 | 2 |
| 14 | 0.50 | 0 | 3/2 | 60 | 4 |
| 15 | 0.10 | 0 | 3/2 | 70 | 4 |
| 18 | 0.20 | 0.50 | 3/2 | 60 | 4 |
| 20 | 0.28 | 0.87 | 3/2 | 60 | 4 |
| 22 | 0.47 | 1.10 | 3/2 | 60 | 4 |
| 24 | 0.80 | 1.19 | 3/2 | 70 | |
| 26 | 1.25 | 1.06 | 3/2 | 70 | |
| 28 | 1.40 | 1.07 | 3/2 | 80 | |
| 30 | 1.50 | 1.02 | 3/2 | 80 | |
| 32 | 1.70 | 0.95 | 3/2 | 80 | |
| 34 | 1.75 | 0.97 | 3/2 | 80 | |
| 36 | 2.20 | 0.95 | 3/2 | 80* | |
| 38 | 3.05 | 1.06 | 3/2 | 80* | |
| 40 | 3.30 | 1.01 | 3/2 | 80* | |
| 37 | 2.65 | 1.05 | 3/2 | 80 | |
| 41 | 3.35 | 0.95 | 2/2 | 80* | |
| 42.3 | 2.8 | 1.01 | 3/2 | 80 | |
| 44 | 2.4 | 0.91 | 2/3 | 70 | |
| 45 | 1.6 | 0.37 | 2/3 | 70 | |

* Substrate estimated - could not see due to turbidity - felt the same as @ 36'

Pool TRI (cont.) 6/26/04

| STA | D | V | Sub p/s | % cover | Notes |
|------|-----|-------|------------|---------|-------|
| 46 | 0.9 | -0.04 | 4/3 | 70 | 4 |
| 47 | 0.3 | -0.19 | 2/3 | 60 | 4 |
| 47.9 | 0 | 0 | 2/3 | 60 | 4 LWE |

69.00 LWP

LWP

EDGE OF BANK - UNDERCUT

WSE-L

WSE-R

RWP

| WM-7 | 6/26/04 | Bank Survey | Sub. % |
|-----------|---------|-------------|--------|
| POOL TR 2 | FS | ELEV | D/S |
| STA | BS | IF | |
| 69.0 | 104.34 | 6.24 | 1 100 |
| 61.0 | | 6.54 | 1 100 |
| 58.6 | | 7.43 | 1 100 |
| 58.3 | | | |
| - | | 8.85 | - |
| - | | 8.84 | - |
| 31.4 | | 8.77 | 1/2 60 |
| 26.6 | | 8.72 | 1 100 |
| 26 | | 8.08 | 1 100 |
| 13 | | 8.34 | 1/2 70 |
| 4 | | 7.89 | 1 100 |
| 1.0 | | 7.55 | 1 100 |
| -9.0 | | 6.62 | 1 100 |

WM-7 6/26/04

Pool TR 2 Discharge

| STA | D | V | Sub- o/s % | Cover | Notes |
|------|------|---------------|---------------|-------|----------|
| 31.5 | ⊕ | ⊕ | 3/2 80 | 2 | RWE |
| 33 | 0.40 | 0.51 | 3/2 90 | 4 | |
| 35 | 0.70 | 0.74 | 3/2 70 | 4 | |
| 36 | 1.10 | 0.65 | 3/2 70 | | |
| 37 | 1.40 | 0.61 | 3/2 70 | | |
| 39 | 1.60 | 0.67 | 3/2 70 | | |
| 41 | 1.60 | 0.80 | 3/2 90 | | |
| 42 | 1.90 | 0.73 | 3/2 90 | | |
| 43 | 2.0 | 0.68 | 3/2 90 | | |
| 44 | 2.4 | 0.64 | 3/2 90 | | |
| 45 | 2.7 | 0.88 / 0.68 | 3/2 90* | | |
| 46 | 3.0 | 0.84 / 0.75 | " * | | |
| 47 | 3.3 | 0.83 / 0.84 | " * | | |
| 48 | 3.62 | 0.82 / 0.88 | " * | | |
| 49 | 4.10 | 0.74 / 0.83 | " * | | |
| 50 | 4.50 | 0.69 / 0.80 | " * | | In Batt. |
| 51 | 4.60 | 0.84 / 0.73 | " * | | " |
| 52 | 4.70 | 0.73 / 0.83 | " * | | " |
| 53 | 5.00 | 1.00 / 0.76 | " * | | " |
| 54 | 4.90 | 0.17 / 0.47 | 2/3 60* | | " |
| 55 | 4.50 | -0.15 / -0.36 | 2/3 70* | | " |
| 56 | 4.30 | -0.12 / -0.39 | 2/3 70* | | " |
| 57 | 3.75 | -0.14 / 0.00 | 2/3 70* | | " |
| 57.8 | 0.95 | -0.19 | " | 2 | L-Bank |

* Estimated

** Using 4' topset rod, USE bed profile from next trip - using 6' topset rod.

undercut 0.7'

WM-7 6/26/04

Pool TR 3 Bank Survey

| STA | BS | HI | FS | ELEV | Sub. % | Notes |
|------|----|--------|------|------|--------|-------------|
| 1.0 | | 104.34 | 7.56 | | 100 | RWP |
| -10 | | | 6.85 | | 100 | |
| 3.5 | | | 7.97 | | 100 | |
| 13 | | | 8.37 | | 100 | |
| 29.0 | | | 8.47 | | 100 | Top of bank |
| - | | | 8.82 | | - | WSE - R |
| - | | | 8.82 | | - | WSE - L |
| 66.9 | | | 7.62 | | 1/2 60 | |
| 68.0 | | | 7.62 | | 2/1 70 | |
| 68.1 | | | 6.36 | | 100 | |
| 76.0 | | | 6.03 | | 100 | LWP |

WM-7 6/26/07

Pool TR 3 Discharge

| STA | D | V | D/S % | Cover | Notes |
|------|------|------|---------|-------|--------------|
| 29.1 | 0.30 | 0 | 2/3 60 | 2 | Edge of Bank |
| 30 | 0.50 | 0.01 | 2/3 60 | 2 | |
| 32 | 0.80 | 0.20 | 2/4 70 | 4 | |
| 33 | 0.45 | 0.15 | 2/4 60 | 4 | |
| 34.5 | 0.50 | 0.06 | 2/4 80 | 4 | |
| 36 | 0.60 | 0.22 | 3/2 60 | | * 30° |
| 37.5 | 0.60 | 0.50 | 3/2 80 | | " |
| 39 | 0.65 | 0.67 | 3/2 80 | | " |
| 40.5 | 0.80 | 0.78 | 3/2 90 | | " |
| 42 | 0.95 | 0.89 | 3/2 90 | | " |
| 43.5 | 1.10 | 0.94 | 3/2 90 | | " |
| 45 | 1.20 | 1.09 | 3/2 90 | | " |
| 46.5 | 1.30 | 1.19 | 3/2 90 | | " |
| 48 | 1.45 | 1.13 | 3/2 90 | | " |
| 49.5 | 1.55 | 1.27 | 3/2 90 | | " |
| 51 | 1.70 | 1.22 | 3/2 90 | | " |
| 52.5 | 1.80 | 1.26 | 3/2 90 | | " |
| 54 | 1.80 | 1.16 | 3/2 70 | | " |
| 55 | 2.00 | 1.19 | 3/2 70 | | " |
| 56.5 | 2.70 | 1.32 | 3/2 70* | | " |
| 58 | 3.50 | 1.15 | 3/2 70* | | " |
| 59.5 | 4.10 | 1.22 | 3/2 70* | | " |
| 61 | 4.25 | 1.07 | 2/3 70* | | * 10° |

* Estimated

undercut 0.3'

| STA' | D | V | Sub D/S % | Cover | Notes |
|------|------|-------|-----------|-------|--------------|
| 62.5 | 3.6 | 1.01 | 2/3 70* | 4 | |
| 63.5 | 2.6 | 0.72 | 2/3 70* | 4 | |
| 64.5 | 2.15 | 0.27 | 2/3 70 | 4 | |
| 65.5 | 1.4 | -0.06 | 2/3 70 | 4 | |
| 66.6 | 0.25 | 0 | 2/3 70 | 2 | EDGE OF BANK |

undercut 0.4'

get last # from Long cic 6/26/04

6/26/04

Photo LOG

Roll # 2 Adventix

| | | | |
|---|------|-----|-----|
| # | Pool | u/s | L-R |
| 1 | Pool | HC | L-R |
| 2 | " | TR1 | L-R |
| 3 | " | TR2 | L-R |
| 4 | " | TR2 | R-L |
| 5 | " | TR1 | R-L |

Roll # 3 Adventix

| | | | |
|----|------|-----|-----|
| # | Pool | TR3 | L-R |
| 1 | Pool | D/S | D/S |
| 2 | " | TR3 | R-L |
| 3 | RUN | TR1 | L-R |
| 4 | RUN | WS | WS |
| 5 | " | TR2 | L-R |
| 6 | " | TR3 | L-R |
| 7 | RUN | D/S | D/S |
| 8 | RUN | TR3 | R-L |
| 9 | " | TR2 | R-L |
| 10 | " | TR1 | R-L |

WM-7 6/26/04

Pool HC Bank Survey

| STA | BS | HI | FS | ELEV | SUB P/S | % | Notes |
|-------|----|--------|------|------|------------|-----|-------|
| 61.55 | | 104.34 | 6.38 | | 1 | 100 | LWP |
| 57.5 | | | 6.75 | | 1 | 80 | |
| 57.0 | | | 8.38 | | 2/3 | 80 | |
| - | | | 8.86 | | - | - | WSE-L |
| - | | | 8.86 | | - | - | WSE-R |
| 8.4 | | | 8.47 | | | | |
| 4.5 | | | 8.34 | | | | |
| 1.0 | | | 7.41 | | | | RWP |
| -4.0 | | | 6.65 | | | | |

Grass

| STA | Notes | D | STA | D |
|------|-------|------|-----|------|
| 56.3 | LWE | 0.75 | 33 | 0.75 |
| 55.5 | 0.2 | 0.8 | 31 | 0.8 |
| 55 | 0.7 | 0.8 | 29 | 0.8 |
| 53 | 1.1 | 0.95 | 27 | 0.95 |
| 51 | 1.35 | 1.10 | 25 | 1.10 |
| 49 | 1.25 | 1.2 | 23 | 1.2 |
| 47 | 1.1 | 1.2 | 21 | 1.2 |
| 45 | 1.25 | 1.1 | 19 | 1.1 |
| 43 | 1.20 | 0.95 | 17 | 0.95 |
| 41 | 1.30 | 0.8 | 15 | 0.8 |
| 39 | 1.00 | 0.85 | 13 | 0.85 |
| 37 | 0.8 | 1.35 | 11 | 1.35 |
| 35 | 0.75 | 1.65 | 9 | 1.65 |
| | | 1.65 | 8.8 | 1.65 |

Pool HC

underscut bank
1.1'

R-Bank

WM-7 6/26/04

RUN LEVEL LOOP

| STA | BS | HI | FS | ELEV | NOTES |
|----------------|------|--------|------|--------|----------------------|
| BM | 3.40 | 103.40 | | 100.00 | |
| TR1 | | | 4.06 | 99.34 | |
| TR2 | | | 4.56 | 98.84 | |
| TR3 | | | 4.09 | 99.31 | |
| TR3 | | | | | + 18 |
| TR3 | 4.27 | 103.58 | | | |
| TR2 | | | 4.74 | 98.84 | |
| TR1 | | | 4.24 | 99.34 | |
| BM | | | 3.58 | 100.00 | ✓ |
| WSE 75' U/S | | | 7.91 | | (measured in stream) |
| WSE 75' D/S | | | 7.98 | | (measured in stream) |

6/26/04

RUN TR1 - Bank Survey

WM-7 HI = 103.58'

| STA | BS | FS | ELEV | Sub. % | Notes |
|------|----|------|------|--------|-------------|
| 1.0 | | 4.71 | | 100 | RWP |
| 17.5 | | 4.39 | | 100 | Top of step |
| 17.6 | | 5.98 | | 100 | Toe of step |
| 2.0 | | 7.59 | | 1/2 60 | |
| 2.1 | | 7.97 | | 1/2 60 | |
| - | | 7.97 | | - | WSE-R |
| - | | 7.97 | | - | WSE-L |
| 63.4 | | 7.10 | | 100 | top of bank |
| 65 | | 6.68 | | 100 | |
| 68.0 | | 6.65 | | 100 | LWP |

6/26/04 WM-7
 RUN TR 1 Discharge

| STA | D | V | W/S | % | Cover | Notes |
|------|------|------|-----|----|-------|--------------|
| 63.3 | 1.30 | 0 | 2/3 | 80 | 2 | EDGE OF BANK |
| 62.5 | 2.10 | 0.03 | 2/3 | 90 | 2 | |
| 61.5 | 2.10 | 0.26 | 2/3 | 90 | 4 | |
| 61.2 | 2.85 | 0.32 | 2/3 | 90 | 4 | |
| 60.5 | 3.70 | 0.54 | 2/3 | 60 | 4 | |
| 59 | 3.60 | 0.79 | 2/3 | 60 | 4 | |
| 58 | 3.35 | 0.74 | 3/2 | 70 | 4 | |
| 56 | 3.10 | 1.23 | 3/2 | 70 | 4 | |
| 54.5 | 2.95 | 1.38 | 3/2 | 70 | 4 | |
| 53 | 2.60 | 1.40 | 3/2 | 70 | 4 | |
| 51.5 | 2.27 | 1.24 | 3/2 | 80 | 4 | |
| 50 | 1.90 | 1.20 | 3/2 | 80 | 4 | |
| 48 | 1.40 | 1.18 | 3/2 | 80 | 4 | |
| 46 | 1.05 | 1.03 | 3/2 | 80 | 4 | |
| 44 | 0.80 | 0.98 | 3/2 | 80 | 4 | |
| 42 | 0.70 | 0.46 | 3/2 | 80 | 4 | |
| 40 | 0.85 | 0.59 | 3/4 | 80 | 4 | |
| 38 | 0.90 | 0.46 | 3/4 | 90 | 4 | |
| 36 | 0.90 | 0.34 | 3/2 | 80 | 4 | |
| 34 | 0.80 | 0.20 | 2/3 | 70 | 4 | |
| 32 | 0.55 | 0.01 | 2/3 | 60 | 1 | |
| 30 | 0.60 | 0.01 | 9/2 | 70 | 1 | |
| 28 | 0.50 | 0 | 9/2 | 80 | 3 | |
| 26 | 0.30 | 0 | 9/2 | 80 | 3 | |

UNDERCUT BANK 0.5'
 organic soft silt substrate

" "

STA
 24
 22
 21.9

D
 0.1
 0.05
 0

V
 0
 0
 0

sub. %
 9/2 80
 2/9 60
 2/9 60

Cover
 2
 2
 -

RWE

6/26/04
Bank Survey

WM-7
TR 2

RUN

| STA | BS | FS | HI = 103.58' | ELEV | Sub p/s % | Notes |
|------------------|----|------|--------------|------|--------------|-------|
| 78.5 | | 5.52 | | | 1 100 | LWP |
| 75 | | 5.68 | | | 1 100 | |
| 73.5 | | 6.34 | | | 1 100 | |
| 72.5 | | 7.51 | | | 1 100 | |
| - | | 7.94 | | | - | WSE-L |
| - | | 7.95 | | | - | WSE-R |
| 74 24 | | 7.90 | | | 1/2 60 | |
| 16.5 | | 7.59 | | | 1 100 | |
| 13.4 | | 6.88 | | | 1 100 | |
| 8.4 | | 5.60 | | | 1 100 | |
| 1.0 | | 5.31 | | | 1 100 | PWP |

WM-7
 RUN TR 2 Discharge
 6/26/04

| STA | D | V | 1/5 % | Cover | Notes |
|------|------|------|-------------|-------|------------|
| 25.3 | 0 | 0 | 1/2 60 | - | RWE |
| 26 | 0.25 | 0 | 2/9 60 | 3 | tall grass |
| 28 | 0.50 | 0 | 1/2 70 | 3 | " |
| 30 | 0.40 | 0.10 | 1/2 80 | 3 | " |
| 32 | 0.75 | 0.30 | 2/9 80 | 4 | |
| 34 | 0.85 | 0.34 | 2/9 60 | 4 | |
| 36 | 0.65 | 0.28 | 1/2 60 | 4 | |
| 38 | 0.55 | 0.64 | 3/2 60 | 4 | |
| 40 | 0.60 | 0.99 | 3/2 60 | 4 | |
| 42 | 0.67 | 1.01 | 3/2 70 | 4 | |
| 44 | 0.60 | 1.19 | 2/3 60 | 4 | |
| 46 | 0.70 | 1.18 | 3/2 60 | 4 | |
| 48 | 0.75 | 1.24 | 3/2 70 | 4 | |
| 50.5 | 0.80 | 1.27 | 3/2 80 | 4 | |
| 53 | 1.05 | 1.26 | 3/2 80 | 4 | |
| 55.5 | 1.25 | 1.35 | 3/2 80 | 4 | |
| 58 | 1.40 | 1.34 | 3/2 80 | 4 | |
| 60.5 | 1.50 | 1.31 | 3/2 80 | 4 | |
| 63 | 1.60 | 1.22 | 3/2 80 | 4 | |
| 65.5 | 1.80 | 1.26 | 3/2 60 | 4 | |
| 67 | 2.05 | 0.85 | 2/3 60 | 4 | |
| 69 | 2.55 | 1.00 | 0.84 2/3 60 | 4 | |
| 70 | 2.60 | 0.78 | 0.67 2/3 60 | 2 | |

| STA | D | V | 1/5 % | Cover | Notes |
|------|------|------|--------|-------|-----------------|
| 71 | 2.10 | 0.10 | 1/2 70 | 2 | EDGE OF CHANNEL |
| 71.7 | 1.80 | 0.10 | 1/2 70 | 2 | undercut 0.7' |

6/26/04

Bank Survey

WM-7

TR 3

HI = 103.58'

RUN

| STA | BS | FS | ELEV | Sub. % | Notes |
|------|------|----|------|--------|-------------|
| 1.0 | 5.03 | | | 100 | RWP |
| 5.0 | 5.78 | | | 100 | |
| 7.6 | 6.20 | | | 100 | |
| 13 | 6.73 | | | 100 | |
| 14.5 | 7.01 | | | 100 | |
| 18 | 7.39 | | | 100 | |
| 19.4 | 7.57 | | | 100 | |
| - | 7.92 | | | - | TOP OF BANK |
| - | 7.93 | | | - | WSE-R |
| 41.4 | 7.92 | | | 2/9 90 | WSE-L |
| 47.9 | 7.82 | | | 100 | |
| 48 | 7.40 | | | 100 | |
| 55 | 7.57 | | | 100 | |
| 59.8 | 7.13 | | | 100 | |
| 61.9 | 6.62 | | | 100 | LWP |
| 94 | 6.85 | | | 100 | |
| 114 | 5.14 | | | 100 | |

BANK

6/26/04

Discharge

WM-7

TR3

| STA | D | V | Sub | 1/5 % | Cover | Notes |
|------|-------|------|-----|-------|-------|----------------------------|
| 41.2 | ⊕ | ⊖ | 3/4 | 90 | - | LWE |
| 40 | 0.55 | 0.35 | 3/2 | 60 | 4 | |
| 39 | 0.75 | 0.58 | 3/2 | 60 | 4 | |
| 38 | 0.80 | 0.73 | 2/3 | 60 | 4 | |
| 37 | 1.00 | 0.85 | 2/3 | 60 | 4 | |
| 36 | 1.20 | 0.97 | 2/3 | 60 | 4 | |
| 35 | 1.45 | 0.89 | 3/2 | 60 | 4 | |
| 34 | 1.75 | 0.92 | 3/2 | 60 | 4 | |
| 33 | 2.10 | 0.91 | 3/2 | 60 | 4 | |
| 32 | 2.60 | 0.89 | 3/2 | 60 | 4 | |
| 31 | 3.10 | 0.78 | 3/2 | 60 | 4 | |
| 30 | 3.60 | 0.79 | 3/2 | 60 | 4 | |
| 29 | 4.00 | 1.00 | 3/2 | 60 | 4 | |
| 28 | 4.50* | 1.12 | 3/2 | 60 | 4 | |
| 27 | 4.70 | 1.09 | 3/2 | 60 | 4 | |
| 26 | 4.70 | 1.07 | 3/2 | 60 | 4 | |
| 25 | 4.80 | 0.99 | 3/2 | 60 | 4 | |
| 24 | 5.00 | 0.73 | 3/2 | 60 | 4 | |
| 23 | 4.30 | 0.36 | 2/3 | 80 | 2 | |
| 22 | 5.00 | 0.16 | 2/3 | 80 | 2 | |
| 21 | 5.00 | 0.18 | 2/3 | 80 | 2 | |
| 19.7 | 1.20 | ⊖ | 1/2 | 80 | 2 | EDGE OF BANK UNDERCUT 0.3' |

* ESTIMATED - over top set depth & turbidity

WM-7



"Rite in the Rain"
ALL-WEATHER
LEVEL BOOK
No. 310 F

8/20/04

WM-7 8/20/04

Upper Williamson to Rock Ford

| TIME | IN | OUT |
|--------|------|-----|
| 9:30 | 3:15 | |
| SG 3.0 | 3.0 | |

crew: Marcus Appy
Glen Anderson

Sunny, clear, hot (~90° High)

Equip: Swaffer 4099
Prop 1A
cal 186

Photo Log (disposable camera #1)

| | | | |
|------|------|-----|-----|
| # 11 | Pool | TR1 | L-R |
| 10 | " | TR2 | L-R |
| 8 | " | TR3 | L-R |
| 7 | RUN | TR1 | L-R |
| 6 | | TR2 | L-R |
| 5 | | TR3 | L-R |

WM-7 8/20/04

Pool Level Loop

| STA | BS | HI | FS | ELEV |
|--------|------|--------|------|-------------|
| BM | 3.56 | 103.56 | | 100.00 ✓ |
| TR1-HP | | | 5.21 | 98.35 ✓ |
| TR2-HP | | | 5.04 | 98.52 ✓ |
| TR3-HP | 4.61 | 103.61 | 4.56 | 99.00 ✓ |
| TR2-HP | | | 5.09 | 98.52 ✓ |
| TR1-HP | | | 5.26 | 98.35 ✓ |
| BM | | | 3.61 | 100.00 ✓ OK |

~~_____~~
~~_____~~
~~_____~~
~~_____~~
~~_____~~

| | | | | |
|-----|--------|------|-------|------|
| HG | 103.61 | 8.23 | 95.38 | LWSE |
| TR1 | | 8.22 | 95.39 | RWSE |
| | | 8.21 | 95.40 | LWSE |
| | | 8.21 | 95.40 | RWSE |
| TR2 | | 8.21 | 95.40 | LWSE |
| | | 8.21 | 95.40 | RWSE |
| TR3 | | 8.20 | 95.41 | LWSE |
| | | 8.20 | 95.41 | RWSE |

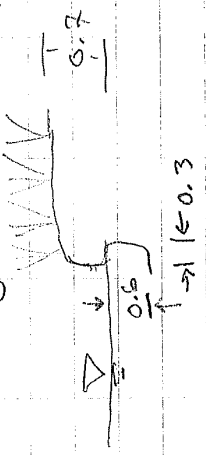
WM-7 8/20/04

Pool TR1
Discharge
RWP = 1.0'
RBE (ucb)

| STA | D | TR1 | Y | * Added Cell | Out | * Added Cell |
|------|-------|---------------------|---|--------------|-----|--------------|
| 12.4 | 0.6 | 0 | 0 | | | |
| 14 | 0.4 | 0 | 0 | | | |
| 14.8 | 0 | 0 | 0 | * | | |
| 15 | -0.15 | 0 | 0 | | | |
| 17.1 | 0 | 0 | 0 | * | | |
| 18 | 0.1 | 0 | 0 | | | |
| 20 | 0.21 | 0.57 | | | | |
| 22 | 0.48 | 0.85 | | | | |
| 24 | 1.00 | 0.96 | | | | |
| 26 | 1.40 | 0.98 | | | | |
| 28 | 1.30 | 1.02 | | | | |
| 30 | 1.32 | 1.01 | | | | |
| 32 | 1.50 | 1.02 | | | | |
| 34 | 1.70 | 0.93 | | | | |
| 36 | 1.92 | 0.84 | | | | |
| 37 | 2.08 | 0.78 | | | | |
| 38 | 2.43 | 0.80 | | | | |
| 40 | 3.05 | $\frac{0.94}{0.83}$ | | | | |
| 41 | 3.30 | $\frac{0.98}{1.05}$ | | | | |
| 42.3 | 2.75 | $\frac{0.83}{0.95}$ | | | | |
| 44 | 2.36 | 0.70 | | | | |
| 45 | 1.85 | 0.23 | | | | |
| 46 | 0.90 | 0 | | | | |
| 47 | 0.25 | 0 | | | | |
| 47.7 | 0 | 0 | | | | |
| 54.8 | - | - | | | | LWR |

WM-7 8/20/04

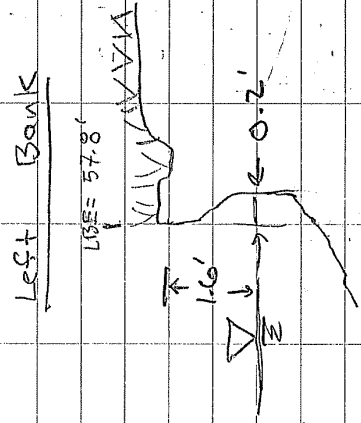
TR1
Right Bank
Note: not visible
(to higher flows.)



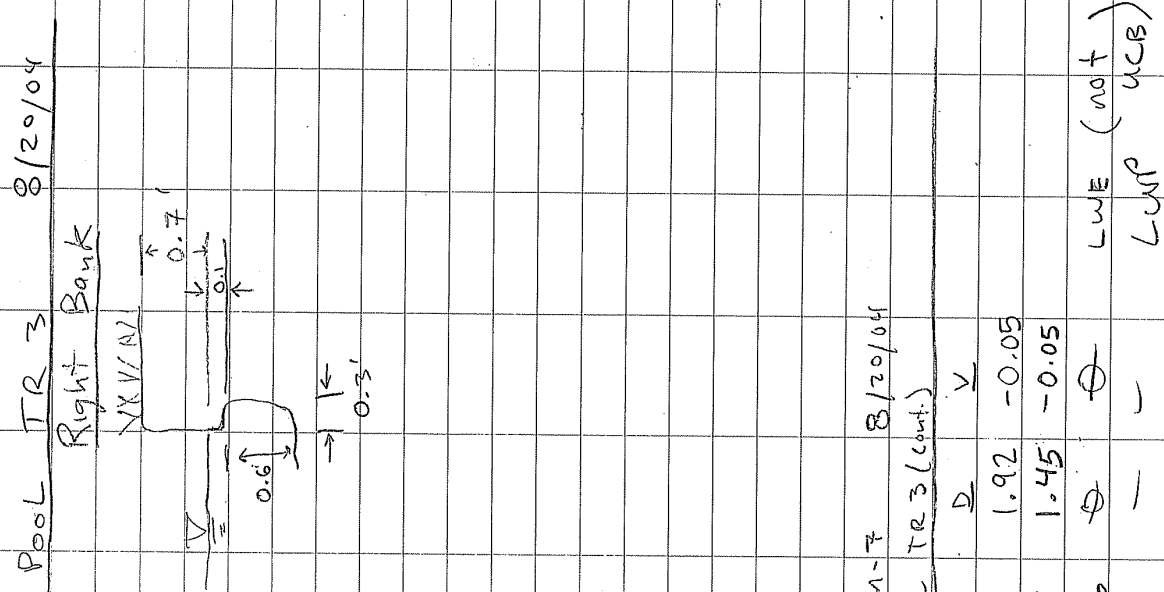
Note: Unstable, sloughing left bank, and mobile/shifting bed, so same difference in bed profile to be expected.

| STA | D | V | TR 2 | Discharge | 8/20/04 |
|------|------|-------|------|--|---------|
| 31.3 | 0.17 | 0 | | RMP=1.0' | |
| 33 | 0.60 | 0.20 | | RBE (Bank 0.2' high) | |
| 35 | 0.92 | 0.35 | | 4 30° | |
| 36 | 1.02 | 0.34 | | 4 30° | |
| 37 | 1.30 | 0.45 | | 4 30° | |
| 39 | 1.47 | 0.75 | | 4 30° | |
| 41 | 1.58 | 0.84 | | 4 30° | |
| 42 | 1.75 | 0.89 | | 4 30° | |
| 43 | 1.75 | 0.93 | | 4 30° | |
| 44 | 1.90 | 1.03 | | 4 30° | |
| 45 | 2.03 | 0.88 | | 4 30° | |
| 46 | 2.25 | 0.80 | | 4 20° | |
| 47 | 2.40 | 0.91 | | 4 10° | |
| 48 | 2.68 | 0.84 | | | |
| 49 | 3.20 | 0.85 | | | |
| 50 | 3.70 | 0.83 | | | |
| 51 | 3.92 | 0.82 | | | |
| 52 | 4.10 | 0.97 | | | |
| 53 | 4.35 | 1.08 | | | |
| 54 | 4.45 | 0.78 | | | |
| 55 | 4.35 | 0.57 | | | |
| 56 | 4.20 | 0.00 | | * Positive vel. - Change 4/24/04 to pos. | |
| 57 | 3.41 | -0.09 | | | BA |
| 57.8 | 0.59 | 0 | | LBE (UCB) | |

WM-7
Pool TR 2
8/20/04
Right Bank
not undercut



| WM-7 | TR 3 | Discharge | 8/20/04 |
|------|------|-----------|---------|
| STA | D | | |
| 29.1 | 0.7 | RBE (UCB) | |
| 30 | 0.87 | | |
| 32 | 0.63 | | |
| 33 | 0.42 | | |
| 34.5 | 0.40 | 4 30° | |
| 36 | 0.45 | 4 30° | |
| 37.5 | 0.48 | 4 30° | |
| 39 | 0.55 | 4 30° | |
| 40.5 | 0.70 | 4 30° | |
| 42 | 0.85 | 4 30° | |
| 43.6 | 0.97 | 4 30° | |
| 45 | 1.15 | 4 30° | |
| 46.5 | 1.30 | 4 30° | |
| 48 | 1.38 | 4 30° | |
| 49.5 | 1.50 | 4 20° | |
| 51 | 1.59 | 4 20° | |
| 52.5 | 1.70 | 4 20° | |
| 54 | 1.90 | 4 20° | |
| 55 | 2.00 | 4 20° | |
| 56.5 | 2.50 | 4 20° | |
| 58 | 3.47 | 4 20° | |
| 59.5 | 4.25 | 4 10° | |
| 61 | 3.97 | 4 10° | |
| 62.5 | 3.36 | | |
| 63.5 | 2.92 | | |



| WM-7 | TR 3 (cont.) | 8/20/04 |
|------|--------------|---------|
| STA | D | |
| 64.5 | 1.92 | -0.05 |
| 65.5 | 1.45 | -0.05 |
| 66.6 | | |
| 76 | | |

WM-7

8/20/04

Pool tie-in to Run

| STA | BS | HI | FS | ELEV |
|--------|------|--------|--------|--------|
| BM-R01 | 5.37 | 105.37 | | 100.00 |
| BM-RUN | | 5.25 | 100.12 | |

RUN LELEL LOOP

| | | | | | |
|--------|------|--------|--|--------|--------|
| BM-RUN | 5.25 | 105.25 | | 100.00 | |
| TR1-HP | | 5.91 | | 99.34 | |
| TR2-HP | | 6.42 | | 98.83 | |
| TR3-HP | 4.66 | 103.96 | | 99.30 | |
| TR2-HP | | 5.13 | | 98.83 | ✓ |
| TR1-HP | | 4.62 | | 99.34 | ✓ |
| BM | | 3.96 | | 105.00 | ✓ O.K. |

| | | | | |
|-----|--------|------|-------|------|
| TR3 | 103.96 | 8.44 | 95.52 | RWSE |
| | | 8.43 | 95.53 | LWSE |

| | | | | |
|-----|--|------|-------|------|
| TR2 | | 8.44 | 95.52 | RWSE |
| | | 8.45 | 95.51 | LWSE |

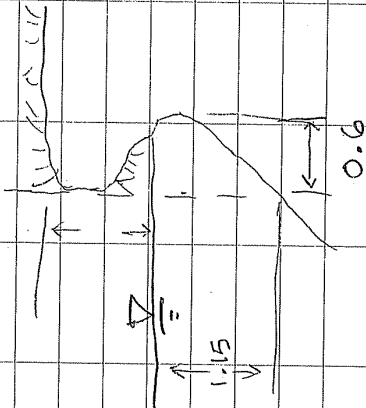
| | | | | |
|-----|--|------|-------|------|
| TR1 | | 8.45 | 95.51 | RWSE |
| | | 8.46 | 95.50 | LWSE |

| WM-7 | TR1 | Discharge | 8/20/04 |
|------|------|-----------|----------|
| STA | D | V | Comments |
| 1.0 | - | - | RWP |
| 24.9 | 0 | 0 | RWE |
| 26 | 0.20 | 0 | |
| 28 | 0.62 | 0 | |
| 30 | 0.50 | 0 | |
| 32 | 0.43 | 0 | |
| 34 | 0.70 | 0.05 | |
| 36 | 0.82 | 0.07 | |
| 38 | 0.83 | 0.38 | |
| 40 | 0.73 | 0.52 | |
| 42 | 0.60 | 0.32 | |
| 44 | 0.70 | 0.55 | |
| 46 | 0.92 | 0.77 | |
| 48 | 1.34 | 0.89 | |
| 50 | 2.13 | 1.05 | |
| 51.5 | 2.38 | 1.10 | |
| 53 | 2.58 | 1.22 | 0.86 |
| 54.5 | 2.85 | 1.14 | 1.06 |
| 56 | 3.00 | 1.01 | 1.18 |
| 58 | 3.10 | 0.71 | 1.07 |
| 59 | 3.60 | 0.51 | 0.46 |
| 60.5 | 3.50 | 0.50 | 0.07 |
| 61.2 | 2.13 | 0.64 | |
| 61.5 | 2.10 | 0.58 | |
| 62.5 | 1.63 | 0.04 | |

WM-7
RUN TR1 8/20/04

Left Bank

LBE = 63.3



| STA | D | V | Comments |
|-------|------|---|-------------|
| 63.3 | 1.15 | 0 | (LBE (UCB)) |
| 63.65 | 0 | 0 | LWE |

| WM-7 | 8/20/04 | TR2 | Comments |
|------|---------|-------------------------|----------|
| STA | D | V | RWF |
| 25.8 | 0 | 0 | |
| 26 | 0.15 | 0 | |
| 28 | 0.30 | 0 | |
| 30 | 0.30 | 0 | |
| 32 | 0.70 | 0.24 | |
| 34 | 0.77 | 0.01 | |
| 36 | 0.52 | 0 | |
| 38 | 0.40 | 0.63 | |
| 40 | 0.52 | 0.76 | |
| 42 | 0.60 | 0.88 | |
| 44 | 0.55 | 0.82 | |
| 46 | 0.60 | 0.95 | |
| 48 | 0.60 | 0.96 | |
| 50.5 | 0.73 | 0.99 | |
| 53 | 1.00 | 1.13 | |
| 55.5 | 1.25 | 1.07 | |
| 58 | 1.48 | 1.16 | |
| 60.5 | 1.55 | 1.08 | |
| 63 | 1.78 | 1.12 | |
| 65.5 | 1.80 | 1.10 | |
| 67 | 2.00 | 0.75 | |
| 69 | 2.48 | 0.86 | |
| 70 | 2.70 | 0.69 0.54 | |
| 71 | 2.00 | 0.01 | |
| 72 | 1.35 | 0 | |

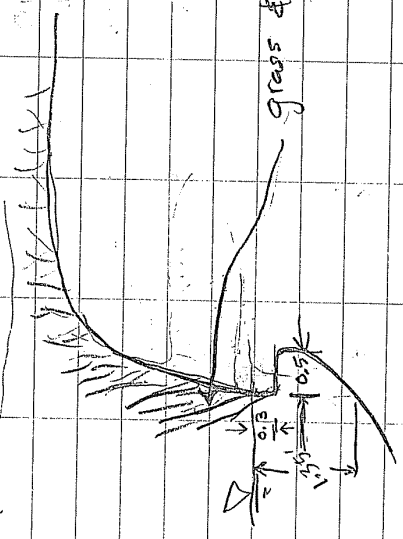
LBE (UCB)

WM-7
RUN TR 2

8/20/04

TR2

Left Bank



grass & reeds

WM-7
 RUN TR3 (discharge)
 8/20/04

STA D V Comments

| STA | D | V | Comments |
|------|------|------|-----------|
| 1.0 | - | - | RWP |
| 19.6 | 1.40 | 0 | RBE (VCB) |
| 21 | 5.05 | 0.17 | |
| 22 | 5.00 | 0.27 | |
| 23 | 4.43 | 0.42 | |
| 24 | 4.60 | 0.41 | |
| 25 | 4.81 | 0.85 | |
| 26 | 4.75 | 0.93 | |
| 27 | 4.45 | 1.02 | |
| 28 | 4.00 | 0.99 | |
| 29 | 3.60 | 0.87 | |
| 30 | 3.05 | 0.98 | |
| 31 | 2.75 | 0.98 | |
| 32 | 2.15 | 1.05 | |
| 33 | 1.80 | 1.02 | |
| 34 | 1.50 | 0.96 | |
| 35 | 1.23 | 0.83 | |
| 36 | 1.05 | 0.87 | |
| 37 | 1.00 | 0.65 | |
| 38 | 0.77 | 0.28 | |
| 39 | 0.65 | 0.05 | |
| 40 | 0.37 | 0 | |
| 41.2 | 0.18 | 0 | |
| 41.3 | 0 | 0 | LWE |

WM-7
 RUN TR3 8/20/04

Right Bank

