

Su-Wa

IFS Trib Gaging



"Rite in the Rain"

ALL-WEATHER

LEVEL

No. 310

1945.150

June 15, 16, 17 &
22

06/15/13 Oshetna R.

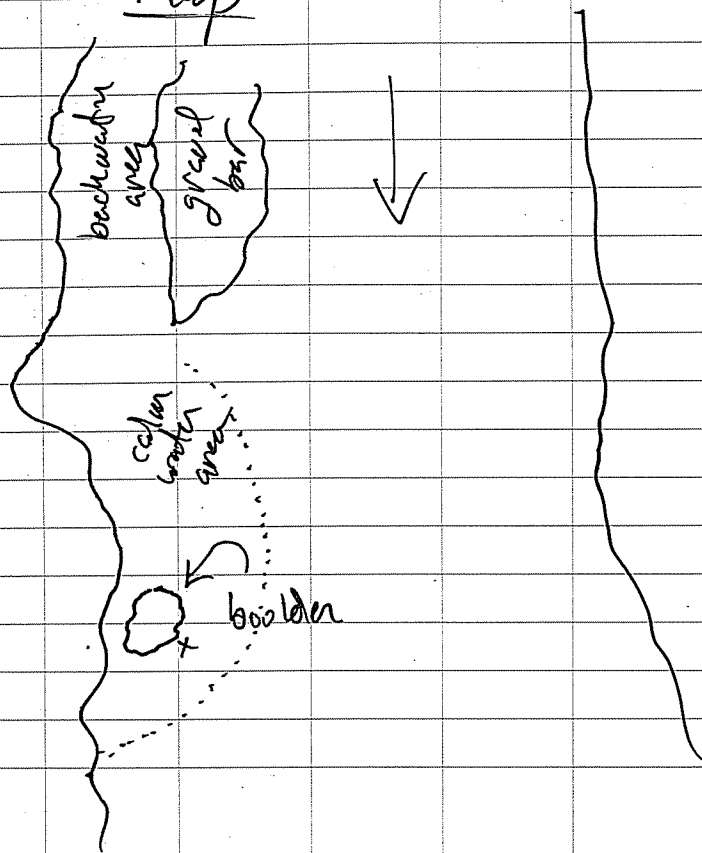
(11:45)

Gage location

N 62.622534

W 147.377824

Map



Oshetna R. Gage 6/15/13

Phil's Camera Photo #s
#139-146

* potential Q location u/s
~ 300', d/s ~ 400'

* large cobbles & boulder substrate
forcepost installation will be
difficult, may try weighted
units attached by cables to
boulder

* 1.3 miles u/s from conf.
w/ Susitna R.

* recommend using weighted
system to hold faggot to
stream bottom, may be
difficult to install stilling
well,

06/15/13

Kosina Cr. Gage site

- * Install st fish trap location good bedrock protection and pool tailout for Q, consider using weighted system to instead of stilling well

* Indian R. Gage site

Install just d/s from RR trestle bridge ~ 200' from river at good spot for fencepost install but 2-3 extra channels will need to be measured for accurate Q

* Skull Cr. Gage site

Lower 1/8 - 1/4 mile has been altered by RR with diking & channel substrate mod. will need to move site u/s of this activity

Beshka R.

6/15/13

potential site observed ~ 1.5 mile u/s of confluence at N 61.764464, W 150.335762
lots of boat use and private property

Trapper Cr.

6/15/13

potential gage installation site found ~ 2,500' u/s of confluence w/ Susitna R. just upstream of Horseshoe Bend
N 62.265716, W 150.184577

Birch Cr.

6/15/13

possible gage location observed at ~ 3,000 - 4,000' u/s of confluence w/ Susitna
N 62.239290, W 150.102768
site is very near RR tracks with small landing area for heli, no boat access due to LWD spanning channel

Level logger 06/16/13

Start Up: Unnamed 113.9

Unit # 2022356 / unnamed 113.9

M5

sample Mode = Linear

sample Rate = 15 m

Unit = feet

Temp = °C

offset = 0

start Time: 6/16/03

11:00:00 AM

Computer Time: 10:29 AM

& logger Time are synchronized

(10:29 AM)

~~Unit # 2022437 M5~~

* start logging @ 11:00 AM

Alaska Time

Gaging Site: 113.9 6/16/13
Unnamed Trib.

In Out

Time 9:00 12:00

S.G. 1.28 1.26 (unchanged)

Location: N 62.486316 W 150.093785

(Unnamed 113.9 staff)

Crew: M. Gagner

P. Hilgert (Q-measurement)

Photo Log:

655 Lt → Rt Q-TR

656 looking u/s

657 " "

658 Lt → Rt Q-TR

659 looking d/s

660 " d/s

661 stilling well & staff plate

662 looking d/s MRS @ St. 4.5 W

663 staff gage close up

Unnamed 113.9 Level Loop
 Level NA 724 Leica 06/16/13

STA	BS	HI	FS	Eleva
BM-1	4.38			100.00
		104.38		
BM-2			1.67	102.71
Rock			8.69	95.69
(TP) Rock	8.65			95.69
		104.34		
BM-2			1.64	102.70
BM-1			4.34	100.00
base ^{stillig} well			10.76	93.58
WSE stillig well			9.60	94.74
Top staff plate			7.53	96.81
new Rock			8.67	95.67
(TP) new Rock	6.82			95.67
		102.49		

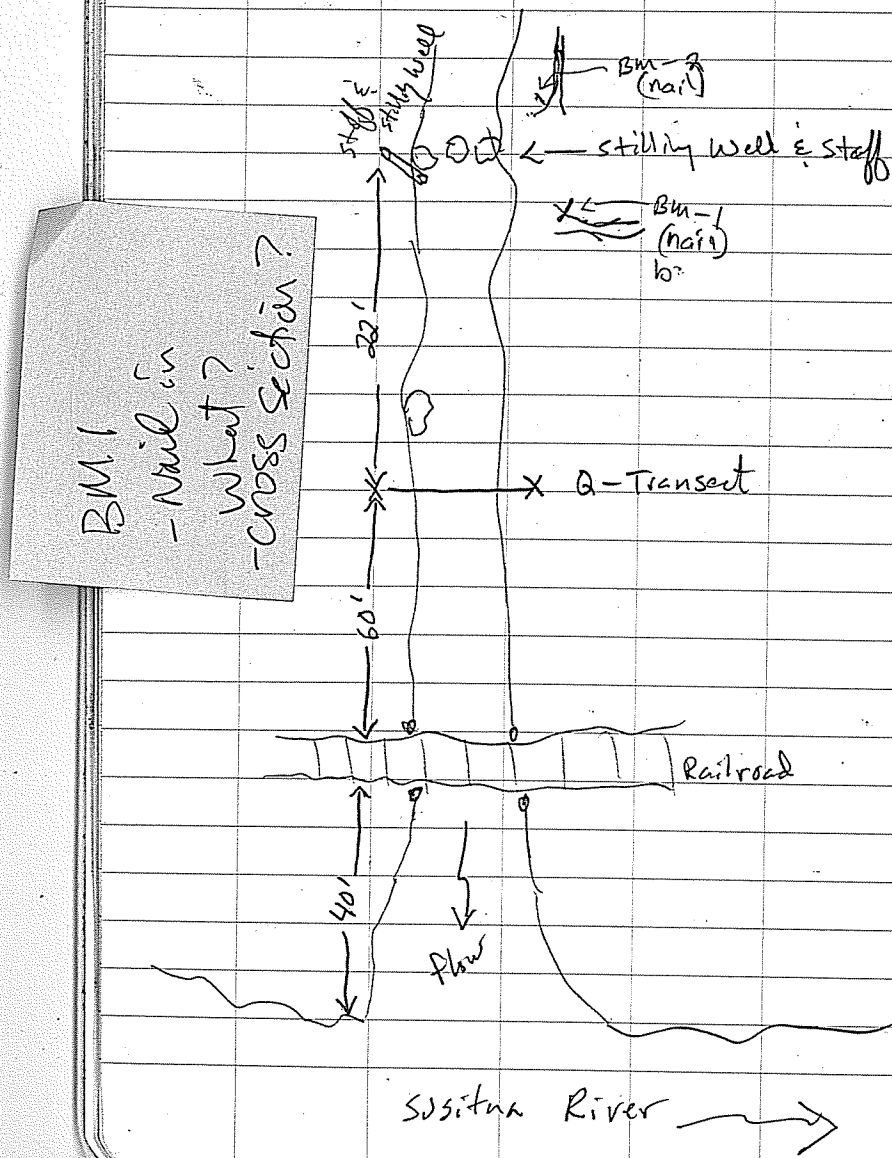
06/16/13

Unnamed 113.9 Q-Profile

STA	BS	HI	FS	Eleva
		102.49		
LWP 0.0			6.86	
			1.2	7.23
LWE 1.3			8.20	(bed)
LWS			8.08	(WSE)
			3.0	8.26
			6.0	8.79
			7.1	8.89
			9.0	8.88
			10.6	8.57
RWE 12.35			8.10	RWE/RWS
RWS 12.80			7.69	
			13.50	7.74
RWP = 15.8			7.42	
u/s - 43'			3.97	w/s ^{WSE} stillig well
d/s - 50'			9.02	d/s " "

* Stillig well → Q-transsect 22'

Unnamed Trib 113.9 6/16/13
Map



06/16/13

Slash Cr. Q-measurement

meter: 4441, cal 0.175, prep 19A

STA	Depth	Vel	Time 1:40/1:50
LWP = 0.0	+1.2	—	base w/ mud over
2.0	+0.8	—	gravel bed
4.0	+0.45	—	
LWE 5.0	0.0	0.0	
5.3	0.05	0.05	est.
5.6	0.10	0.08	
5.9	0.15	0.77	
6.2	0.20	1.06	
6.5	0.15	0.72	
6.8	0.15	0.29	u/s vel shelter
7.26.9	0.10	0.03	
RWE 7.7	0.0	0.0	
8.0	+0.30	—	silt/muck
9.0	+0.50	—	"
RWP = 10.0	+0.80	—	base

Photo Log

- 0664 looking u/s at slash Cr.
- 665 Phil clearing channel
- 666 looking RT → Lt
- 667 " u/s
- 668 " d/s

Location: N 62.508202

W 150.103737

Phil = Q-measurement MRE = notes

~~Slash for Photo Log~~

~~0664 / loading o/s
665~~

pull

SKIP

*NO

Data *

Gash Cr. Gage Installation
06/16/13

	In	Out
Time	2:15	4:30
S.G.	1.12	1.15 / 1.12

Crew: M. Gagner (notes, survey)
P. Hilgart (Q-mens.)

Gage #: 2022421/M5

Sample mode: Linear

Sample rate: 15 min.

Units: Feet

Temp: °C

Offset: 0

Start time: 3:30:00 pm Alaska Time

* Logger synchronized with computer
Computer time: 2:45 pm

N 62.504288

W 150.104018

(Gash Cr gage station)

Gash Cr Level Loop
E. control Profile
6/16/13

STA	BS	HI	FS	Elev
BM-1	4.09			100.00
		104.09		
BM-2			2.09	
Log				
BM-1 (TP)	4.29			100.00
		104.29		
BM-2			2.29	102.00
Log			3.58	100.71
Log (FP)	3.51			100.71
		104.22		
BM-2			2.20	102.00
BM-1			4.22	100.00 ✓

reshoot

Gash Cr WSE E. profile
STA BS HI FS Elev

STA	BS	HI	FS	Elev
		104.22		
base stillwell			10.39	(93.83)
WSE			9.28	stillwell (94.94)
staff plate			7.08	(97.14) top staff plate
<u>Control Profile</u>				
			8.96	
LWP=0.0			9.39	
LWE/LWS=1.3			9.38	
			2.0	
			2.5	
			3.2	
			4.2	
			5.0	
			7.0	
			8.0	
			9.0	
			10.4	
			11.4	
			11.6	
			12.1	
			13.1	
			13.8	
			14.7	
			15.4	
			8.82	top rock
			9.62	
			9.68	btw lg cob
			9.63	
			9.60	
			9.57	
			9.55	
			9.54	
			9.28	top cob.
			9.54	
			9.22	top cob.
			9.40	
			9.39	
			9.31	
			9.05	top cob

Gash Cr. Profile Continue 6/16/13

STA	BS	HI	IS	Elev
15.9			9.31	
16.8			9.44	
17.2			9.43	
18.1	RWE		9.30	UCB - 0.9
	RWS		9.30	
18.3			6.95	RWP
	v/s control "5"		9.25	
	d/s 34.3'		10.70	WSE

Tape

BM-1		
HP-1	42.5	Lt bank
HP-2	24.5	Rt bank

still well Lt bank pin 13.3'

Culvert Info

culvert diameter = 2.7'
 water depth = 0.46'
 wet width = 1.68'
 vel mid point = 7.31 ft/sec

200A

Gash Cr. Map 6/16/13

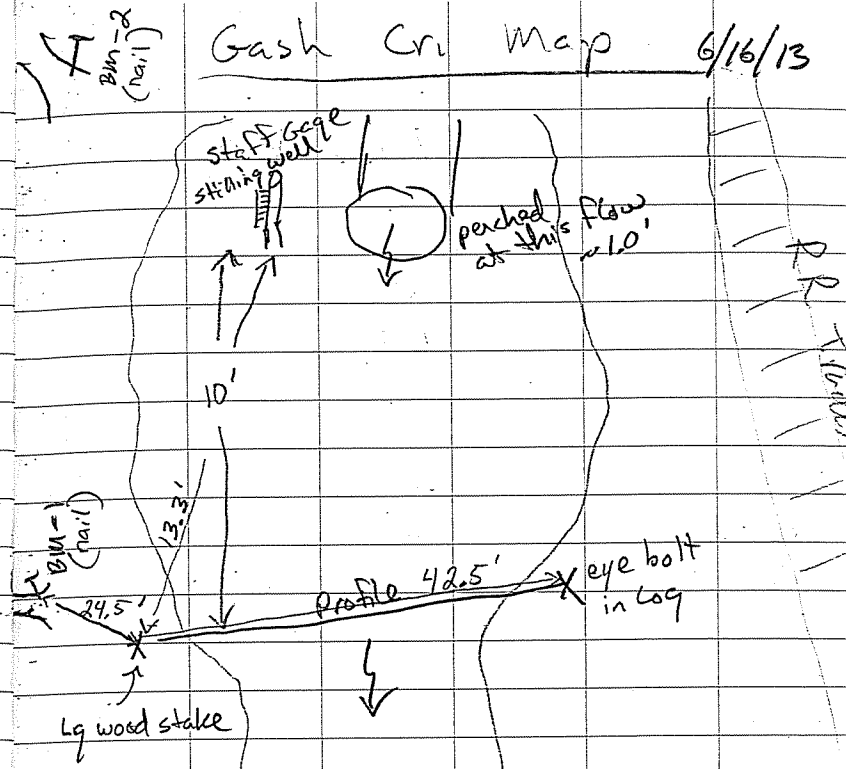


Photo log:

# 669	stilling well & culvert outlet
670	" "
671	hydraulic control RT → Lt
672	" "
673	hydraulic control looking d/s
674	staff plate
675	hydraulic control looking Lt → Rt

Trapper C. Gage Install
06/17/13

	In	Dot
Time	10:06	12:30
S.G	1.26	1.26

Crew: M. Gagner (Lead & notes)
P. Hilgert (Q-measurement)

Model Logon # D102622436

Linear mode: 15 min

Units: Feet

Temp: °C

Offset: 0

Start Time: 11:00 AM

Logger synchronized with
computer

N 62.257540

W 150.172762

Trapper Photo Log
06/17/13

694 Rt → Lt Q-transect
695 → Lamprey photos
708 ✓
709, 10 Lt → Rt Q-transect
7A Lamprey redd
712 staff gage close up
713 " general local
714 looking d/s Q-transect
715 " u/s "

HSC

* suspect Arctic Lamprey redd

Depth	Vel	Substrate
0.90	2.31	MG 60 / LG, HD / 10%

active spawning

2 - Lamprey 180 mm length
200 mm "

06/17/13

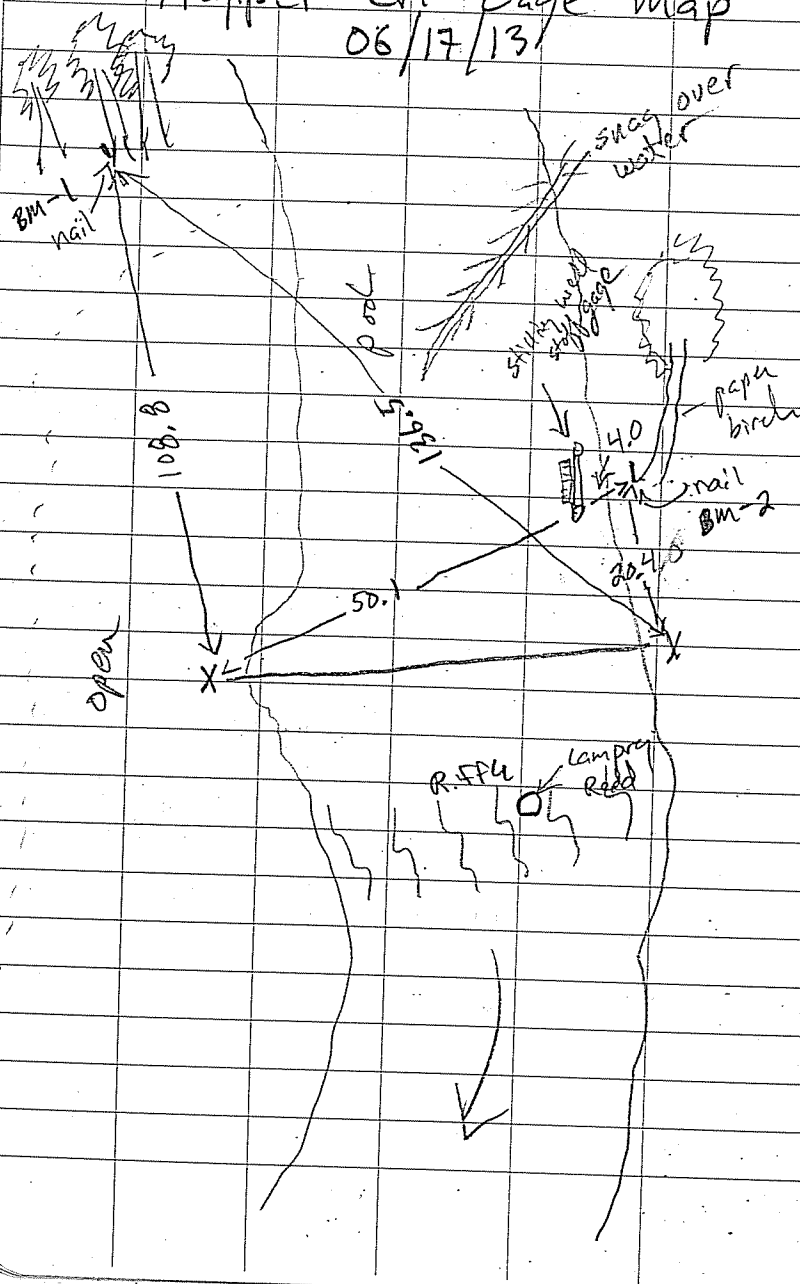
Trapper Cr. Level Loop

STA	BS	HI	FS	Elev
BM-1	1.17			100.00
		161.17		
BM-2			3.06	98.11
Fence post			4.82	96.35
Fence post (FP)	4.85			96.35
		161.20		
BM-2			3.09	98.11
BM-1			1.20	100.00 ✓
		101.20		
base stilling well		9.44		bed elev. 91.76
WSE stilling well		7.80		93.40
Top Staff Plate		5.72		95.48

Trapper Cr. Profile 6/17/13

STA	BS	HI	FS	Elev
		101.20		
LWP 0.0			5.49	base wp
2.0			6.39	
LWE 2.5			7.93	0.1 depth, 0.7 ucb
LWS			7.80	
4.0			7.99	
7.0			8.21	
10.0			8.31	
12.0			8.32	
14.0			8.57	
16.0			8.77	
18.0			8.69	
20.0			8.63	
22.0			8.88	
25.0			8.81	
28.0			8.88	
31.0			8.82	
34.0			9.08	
37.0			8.94	
39.0			9.05	
40.0			8.99	
RWE 41.4			8.90	ucb (1.3)
↳ 42.0			6.25	
↳ 42.7			5.79	RWP base
↳ AWS 43.6 (RWP)			7.79	

Trapper Cr. Gage Map
06/17/13



Susitua R. @ Trapper Cr
Gage 06/17/13

	In	Out
Time	1:20	2:15
S.G	2.06	2.11

Crew: M. Goggin
P. Hilgert

Logger Unit # 0102022412
 Linear Mode : 15 min.
 Units : feet
 Temp : °C
 Future start : 2:30:00 pm
 Synchronized clock w/ computer
 1:37:17 pm
 Susitua @ Trapper Cr
 N 62.253596
 W 150.168408

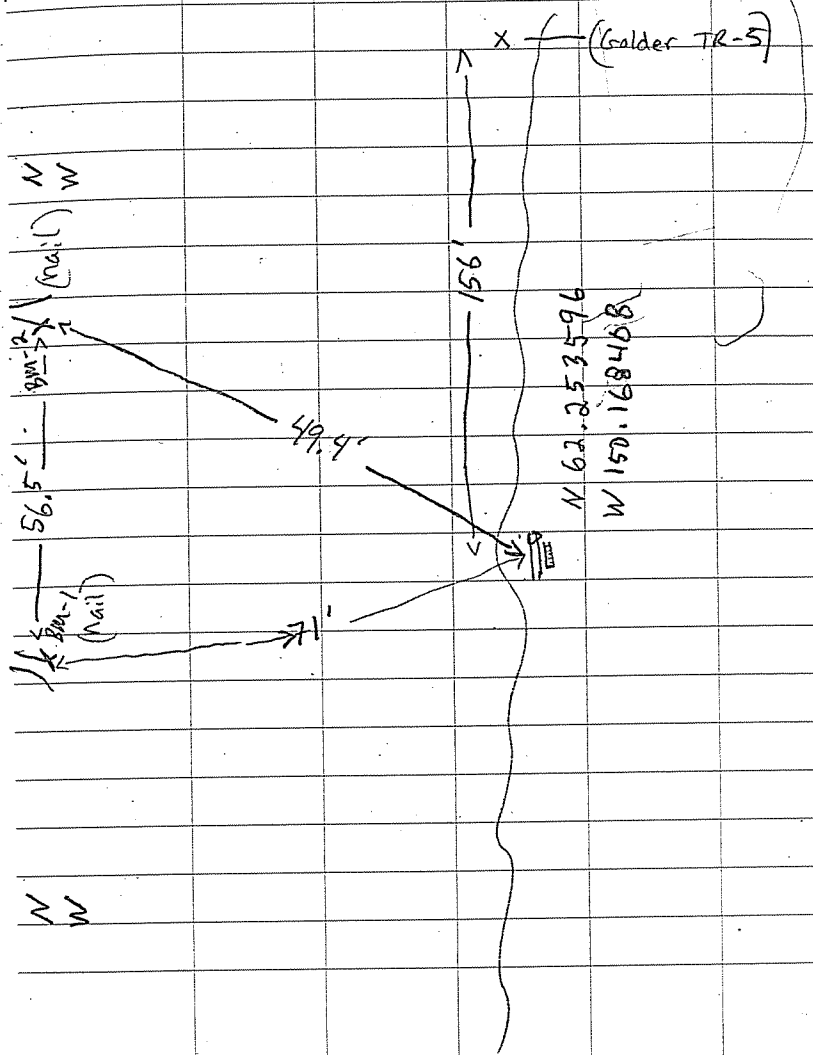
Susitna @ Trapper Cr. 06/17/13
Level Loop & WSE

STA LBS HI FS Eleva

BM-1	4.01		4.01	100.00
		104.01		
BM-2			4.63	99.38
Rock			4.49	99.52
Rock (TP)	4.22			99.52
		103.74		
BM-2			4.36	99.38
BM-1			3.74	100.00
		103.74		
WSE @ stilling well			8.66	95.08
channel bottom			10.95	92.79
staff plate			7.40	96.34

Susitna @ Trapper Cr.
Side Map 06/17/13

Gage located 156' d/s TR-5 (Golder)



Susitna @ Tropper Cr 06/17/13

0724 staff plate close
0725 staff plate
0726 BM-1
~~727~~ ~~staff plate~~

Whiskers Cr. BaraLogger
06/17/13

BaraLogger # 0012023124

Unit : KPa

Temp : °C

Future start : 5:30:00 pm
6/17/13

computer & logger time
are synchronized at 4:15:45 pm

	In	Out
Time	4:30	5:30

Crew: M. Gagnon
P. Hilgert

Location: N 62, 377946

W 150, 170896

within a group of young alders

Photo # 740 BaraLogger installation
741 Whiskers Cr. looking o/s
742 " " d/s

Time?

June 17, 2013 10:00 pm
Telephoned Sam over
as stipulated under
our collection permit
SF2013-154, left
message for Sam letting
him know we would
be starting work on June
18 and continuing for the
next 5-days

* Allen
713 240 9610

Whiskers Cr 06/22/13

Gage Installation

Level Logger # 102022437

computer file 9:13 am AST

logger file 9:13 am "

units : Ft

Temp : °C

future start : 6/22/13

11:00:00 AM

WPT # 60

Photo

914, 995 before installation

Whiskers Cr.

6/22/13

	In	Out
Time:	10:00	1:15
S.G.	1.99	1.99

Crew: M. Gagner
T. Kichel

Level: NA 724 Leica

Meter: Swiffer Model 2100 (4441)
prop: 19A cal 175

Photos

Whiskers Cr.

6/22/13

STA	BS	HI	FS	Eleva
BM-1	2.34			100.00
		102.34		
BM-2			3.65	98.69
Limb			2.69	99.65
Limb (TP)				
Limb	2.74			99.65
		102.39		
BM-2			3.70	98.69
BM-1			2.39	100.00
		102.39		
SHW well bed			10.95	91.44
SHW well WSE			8.55	93.84
top stab plate			7.22	95.17
N/S WSE			8.60	93.79
N/S Bed elevat			9.37	93.02
BM-1			2.39	100.00 ✓

Limb

Whiskers Cr. Control Profile

6/22/13

STA	BS	HI	FS	Eleva
BM-1	2.43			100.00
		102.43		
RWP=0.0			5.07	
3.0			7.51	
3.4			8.48	
4.5			8.64	RWE/RWE
6.0			8.94	
7.6			9.08	
9.0			9.21	
11.10			9.57	
12.60			9.34	
14.0			9.44	
15.5			9.46	
17.10			9.45	
19.00			9.31	
21.1			9.39	beside bla
23.1			9.42	
24.8			9.38	
26.1			9.04	
26.5			8.64	LWE/LWS
27.4			7.26	
29.7			6.38	
31.3			6.25	LWP
mid WSE(15.0)			8.64	

Whiskers Cr. Q-measurement

06/22/13

STA	Depth	Vel	Comments
RWE=4.2	0.0	0.0	
5.3	0.25	1.46	
6.5	0.3	1.60	
7.5	0.3	1.64	
8.5	0.4	1.54	
9.5	0.6	1.58	
10.6	0.7	1.38	
11.6	0.75	1.42	
12.5	0.7	1.50	
13.5	0.7	1.51	u/s-BLA
14.5	0.8	1.45	
15.5	0.8	1.11	
16.5	0.85	1.36	
17.5	0.45	1.49	Top CoB
18.5	0.75	1.21	
19.5	0.7	1.33	
20.5	0.7	1.44	15°
21.5	0.75	1.44	20°
22.5	0.8	1.00	10°
23.5	0.75	1.29	25°
24.5	0.8	0.85	25°
25.5	0.55	0.47	10°
LWE=26.5	0	0	

Whidens Co Gage Map

06/22/13

