



UNDER ICE BED PHOTO SAMPLING

SUSITNA-WATANA
HYDROELECTRIC PROJECT

Date & Time: 3-24-2014 1720

Crew: MP, BT, RK

Sheet 1 of 3

Location: PRM + 39.3 39.3

Weather: Clear

Camera: H-SW5-Gopro-1 / H-SW6-Gopro-2 GPS Unit: PDX

Comments: Camera - 1 Photos #504 left side channel looking right #505 view US from centerline holes #506 view US from centerline holes #507 right side channel looking left

(A) Sample #	(B) GPS Point #	(D) Snow Depth (ft)	(E) Ice Thickness (ft)	(F) Top of Ice to Bed Distance (ft)	(G) Flow Depth (F-E) (ft)	(H) Frazil Ice Present?	(I) Anchor Ice Present?	(J) Freeboard Height (ft)	(K) Camera Height above Bed (ft)	(L) Video #	(M) Comments / Bed Description
S1	1	0.5	3.1	94	4.7	Y	N	0.3	4, 3	142, 9	142-4ft HSWG Gopro-1 9-3ft HSW5 Gopro-2
S2	2	0.5	3.0	97	5.1	Y	N	0.1	4, 3	143, 10	143-4ft HSW6 Gopro-1 10-3ft HSW5 Gopro-2
S3	3	0.5	3.1	104	5.6	Y	N	0.2	4, 3	11, 34	11-3ft HSW6 Gopro-1 34-4ft HSW5 Gopro-2
S4	4	0.5	3.2	113	6.2	Y	N	0.2	4, 3	5, 12	5-4ft HSW6 Gopro-1 12-3ft HSW5 Gopro-2
S5	5	0.5	3.1	120	6.9	Y	N	0.2	4, 3	6, 13	6-4ft HSW6 Gopro-1 13-3ft HSW5 Gopro-2
S6	6	0.5	3.1	122	7.1	Y	N	0.2	4, 3	7, 14	7-4ft HSW6 Gopro-1 14-3ft HSW5 Gopro-2
S7	7	0.5	2.8	124	7.5	Y	N	0.2	4, 3	8, 15	8-4ft HSW6 Gopro-1 15-3ft HSW5 Gopro-2
S8	8	0.5	3.0	93	4.8	Y	N	0.1	3	16	
S9	9	0.5	3.0	98	5.2	Y	N	0.1	3	17	
S10	10	0.5	3.1	101	5.3	Y	N	0.1	3	18	
S11	11	0.5	3.0	114	6.5	Y	N	0.1	3	19	
S12	12	0.5	3.0	122	7.2	Y	N	0.2	3	20	
S13	13	0.5	3.2	125	7.2	Y	N	0.2	3	21	
S14	14	0.5	3.3	130	7.5	Y	N	0.1	3	22	
S15	15	0.5	3.1	107	5.8	N	N	0.1	3	23	

Photo Back up # Kalyana camera 2910

OCF



TETRA TECH

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Sheet 2 of 3

Location: PRM ~~39.3~~ 39.3

Weather: Clear

Camera: see 1A3

GPS Unit: PDX

Comments: see 1A3

(A)	(B)	(D)	(E)	(F)	(G)	(H)	(I)	(J)	(K)	(L)	(M)
Sample #	GPS Point #	Snow Depth (ft)	Ice Thickness (ft)	Top of Ice to Bed Distance (ft)	Flow Depth (F - E) (ft)	Frazil Ice Present?	Anchor Ice Present?	Fresboard Height (ft)	Camera Height above Bed (ft)	Video #	Comments / Bed Description
516	16	0.5	3.1	100	5.2	Y	N	0.1	3	24	
517	17	0.5	3.2	116	6.5	Y	N	0.1	3	25	
518	18	0.5	3.5	125	6.9	Y	N	0.3	3	26	

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Photo Back up # Kilgoran Camera Photo # 291

Aerial photo Kilgus camera
Photo #

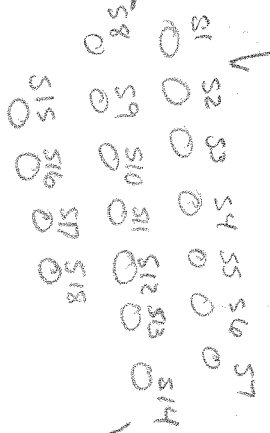
- 212
- 213
- 214
- 215
- 216
- 217
- 218

River

Elms



350'



holes spaced 8-10'

VI

River Right

211
[Signature]

photo 30p Kilgus camera Photo # 292

3/24/14