

U.S. DEPARTMENT OF INTERIOR
GEOLOGICAL SURVEY

Site No. 1906 0000-
Busin Index 13CC

WATERPOWER OF THE UNITED STATES

State ALASKA Stream KUNK Creek-ETOLIN Island Site KUNK LAKE

County <u>FIRST JUDICIAL DIVISION</u>				Owner _____	
Mer. <u>Copper River T. 64 S</u> R. <u>84 E</u> Sec. <u>26</u>				Constructed _____	
Lat. <u>56° 17' 12" N</u> Long. <u>132° 23' 36" W</u>				Storage <u>12,800</u> ^{cu ft} of _____ m ³	
Miles above mouth <u>0.8</u>				Installable capacity _____ mw	
Drainage Area <u>3.2</u> ^{sq. mi.} _____ sq. km				Annual generation _____ mwh	
				Secondary energy _____ mwh	

FLOW			ELEVATIONS				HEAD		THEORETICAL POWER mw-100 % Eff.	ESTIMATED AVERAGE ANNUAL GENERATION mwh
Percent duration	cfs	m ³ /sec	Forebay		Tailrace		Gross			
			ft.	m	ft.	m	ft.	m		
95	5		315		275 ^{1/2}		40 ^{3/4}		Firm	
50	34									
mean	38 ^{1/2}							0.129		

Remarks: Flows need to be Evaluated, Doohy et al map indicates lower rainfall than used in 1947 report.

If power house were located at mouth, Head = 315 - 0 = 315, T. power = 1.017 mw, 3000 ^{3/4} penstock.

If power house were located at mouth, No FK flows diverted into lake, flows = 38 + 20 = 58 cfs, T. power = 1.553 mw.

If power house were located at mouth, No FK flows diverted and flows from Anita included, flow = 58 + 28 = 86 cfs, T. power = 2.303 mw.

If power house were located at mouth, No FK of Anita included, and Anita Creek diverted, ^{1 1/2} flow = 86 + 3 = 89 cfs T. power = 2.383 mw.

Bibliography on reverse side of Card.

OLIVE, KUNK AND ANITA Lakes, 1950
PETERSBURG, ALASKA (B-2)

Prepared by TJK Date 8/77

1) See "water powers of Southeast ALASKA", FPC & USFS, 1947, pg 92.

2) See FPP 2189

3) See "A proposed STREAMflow Data Program in ALASKA", USGS, 1970, pg 34

WATERPOWER OF THE UNITED STATES

State	Alaska	Stream	Kunk Lake	Site	Kunk Lake	2592
County				Owner		
First Judicial Division				Constructed		
Mer. Copper River T. 64S R. 84 E. Sec. 20				Storage ^{required} 16,000 af		
Lat. 56° 17.2' " Long. 132° 23.6' "				Installed capacity _____ mw		
Miles above mouth _____				Installable capacity _____ mw		
Drainage Area 3.2 sq. mi. _____ sq. km						

FLOW			ELEVATIONS				HEAD		THEORETICAL POWER mw-100 % Eff.	ESTIMATED AVERAGE ANNUAL GENERATION mwh
Percent duration	cfs	m ³ /sec	Forebay		Tailrace		Gross			
			ft.	m	ft.	m	ft.	m		
95	5		315		25		290		0.123	
50	34								0.838	
mean	38								0.937	

Remarks: Flows based on 1947 FPC Report, should be investigated. See USGS "Streamflow Data Program in Alaska."

1) Flows derived from No. FK, cfs = 58, T. power = 1.43

2) Flows include flows from Anita site & No. FK, cfs = 86, T. power = 2.12 ✓

3) Flows include Anita site, No. FK & Anita Creek, cfs = 89, T. power = 2.19

1) See "Waterpowers of So. East Alaska", FPC, 1947, pp. 92.

2) See FPP No. 2189

ETOHIN Island - Petersburg B-2

Prepared by TK Date 8/77