

STADIA SURVEY NOTES

AREA IKPIKPUK - KEY CREEK STATE or PROVINCE North Slope PAGE No. 1
 LINE No.(s) KD-99-176-1182 PARTY No. 1182 DATE 21 Day MAR Mo. 77 Yr. BOOK No. _____
 SURVEYOR JOEL SWANSON RODMAN TIM VANALEN WEATHER: _____ P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Find Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD		
1					SEE										LINE INT = SP-53+00-101
2					FOR										SP-95+00-2.99
3															PIPE MARKER
4												58.2			SP 53 LINE 101 = SP 35
5															LINE 99. 53.9
6		825		89 40 56					+15.0	+10.4		68.6		Δ	34 + 49.5
7				770 19 26					+15.0	+10.3				Δ	
8				269 38 11					+5.0					Δ	
9															
10		495		90 22 19					-100	-3.2	-13.2		55.4		34
11															
12		1815		90 13 37					-15.0	-7.2	-22.1		46.4		33
13															
14		3135		90 07 39					-15.0	-7.2	-21.8		46.8		32
15															
16		4455		90 08 40					-15.0	-25.8			43.3	0	31 37.9
17				269 52 09					-15.0	-24.8				0	
18				269 44 05					+5.0	-25.2				0	
19															
20															

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STADIA SURVEY NOTES

AREA IKPIMPWK - Key Creek STATE or PROVINCE North slope PAGE No. 2
 LINE No.(s) BD-99 PARTY No. 1182 DATE 21 Day MAR Mo. 77 Yr. BOOK No. _____
 SURVEYOR J.S. RODMAN T.V. WEATHER: _____ P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD		
1		1240		90 21 55					+15.0	+22.9		66.2		Δ	30+82'
2				269 38 00					+15.0	+22.9				Δ	
3				269 24 18					+10.0					Δ	
4															
5		82		92 30 51					-10.0	-3.6	-13.6	52.6			30
6															
7		1400		90 30 15					-15.0	-12.3	-27.3	38.9			29
8															
9		2720		90 13 41					-15.0	-10.8	-25.2	40.5			28
10															
11		3547		89 52 12					-15.0	-6.7	-6.7	59.7		Δ	27+495
12				270 08 11					-15.0	-6.3	-6.3			0	53.7
13				269 58 15					-5.0					0	
14															
15		4455		89 33 04					+15.0	-20.3	-20.3	39.2	37.2	Δ	24 w.l. H.I.=5.0
16				270 27 15					+15.0	-20.7	-20.7			Δ	
17									+5.0					0	
18															
19		3960		270 11 46					-15.0		-1.4	37.8			27
20															

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STADIA SURVEY NOTES

AREA IKPAK PUK - KEY CREEK STATE or PROVINCE North slope, ALASKA PAGE No. 3
 LINE No.(s) HD 99 PARTY No. 1182 DATE 21 Day MAR Mo. 77 Yr. BOOK No. _____
 SURVEYOR J.S. RODMAN T.V. WEATHER: _____ P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		AB.S. OF.S. -S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair-Read	Reading	Correc-tion	Center Hair			INST.	ROD			
1		2640		90	00 00					-5.0			34.3		26	W.L.
2																
3		1320		90	00 00					-5.0			34.3		25	W.L.
4																
5		1320		89	40 24					-15.0	-7.5	-7.4	21.2		23	
6																
7		2640		89	52 14					-15.0	+6.0	+8.9	20.3		22	
8																
9		3960		89	28 58					-15.0	+21.1		60.3	0	21	LWE 99 = SP
10				270	31 06					-15.0	+21.2			0		4+660' LINE 100
11				270	22 28					-5.0				0		SP-21+00-L-99
12																PIPE MARKER
13																54.5
14																
15																
16																
17																
18																
19																
20																

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STADIA SURVEY NOTES

AREA IKPIKPUK-KEY STATE or PROVINCE ALASKA PAGE No. 4
 LINE No.(s) 99 PARTY No: 1182 DATE 24 Day MAR Mo. 77 Yr. BOOK No. _____
 SURVEYOR JOEL SWANSON RODMAN TIM VAN ALLEN WEATHER: _____ P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		B.S. OF.S. -S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD			
1																
2																
3																
4																
5																
6		2640		89 55 32						+6.0	+2.4	62.6	57.4	Δ	19	
7				270 04 43						+6.0	+2.2			Δ		
8																
9		1320		270 11 51												
10		0														
11		1320		89 56 51												
12																
13		3960		90 26 16												
14				269 34 04												
15																
16		3465		90 01 42												
17				269 58 30												
18																
19																
20																

TI-588B

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STADIA SURVEY NOTES

AREA IKPIKPUK-KEY STATE or PROVINCE ALASKA PAGE No. 5
 LINE No.(s) 99 PARTY No. 1182 DATE 24 Day MAR Mo. 77 Yr. BOOK No. _____
 SURVEYOR J.S. RODMAN T.V. WEATHER: _____ P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD		
1												17.9		17	W.L. SAME EL
2												17.9		15	W.L. AS SP 16
3															(ON LAKE)
4		825		269	56	29						18.4		14	
5															
6		495		90	32	55						14.5		13	
7															
8		1815		90	13	52						12.0		12	
9															
10		3135		90	05	45						14.2		11	
11															
12		4455		90	06	44				-23.3		11.2	0	10	4.7
13				269	53	40				-22.8			0		
14				269	45	53				-5.0			0		
15															
16		3960		89	55	08				+9.1		19.7	14.2	7	Δ
17				270	05	49				+8.0					Δ
18															
19		2640		89	49	40						12.8		9	
20															

TI-598B

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STADIA SURVEY NOTES

AREA IKPIKPUK-KEY STATE or PROVINCE ALASKA PAGE No. 6
 LINE No.(s) 99 PARTY No. 1182 DATE 24 Day MAR Mo. 77 Yr. BOOK No. _____
 SURVEYOR J.S. RODMAN T.V. WEATHER: _____ P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS	
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD			Δ B.S. OF S. - S.S.
1		1320		89	48	21							9.2		8	
2																
3		1320		90	01	45							9.1		6	
4																
5		2640		89	55	13							8.5		5	
6																
7		3960		89	57	26							8.2	0	4	
8				270	02	51								0		17
9				269	54	10								0		
10																
11		3960		89	54	05							16.4	Δ	1	PIPE MARKER
12				270	05	20								Δ		
13				269	56	50								Δ		
14																
15		2640		89	52	02								7.7	SP	3
16																
17		1320		89	44	11								7.5	SP	2
18																
19		1155		89	46	42								5.9		4
20																TAIL

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STADIA SURVEY NOTES

AREA IKPIKPUK - KEY STATE or PROVINCE ALASKA PAGE No. 7
 LINE No.(s) 99 PARTY No. 1182 DATE 24 Day MAR Mo. 77 Yr. BOOK No. _____
 SURVEYOR J.S. RODMAN T.V. WEATHER: _____ P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD		
1		2475		89	56 46				-15.0				3.8	8	TAIL
2															
3		3795		89	57 00				-15.0				5.0	12	
4															
5		5115		89	54 56				-15.0				9.5	16	
6															
7		6435		89	58 21				-15.0				5.3	20	
8															
9		7755		89	59 10				-15.0				4.5	24	TAIL
10															
11															
12															
13															
14															
15															
16															
17															
18															
19															
20															

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STADIA SURVEY NOTES

AREA IKPIKPUK - KEY STATE or PROVINCE ALASKA PAGE No. 8
 LINE No.(s) 99 PARTY No. 1182 DATE 24 Day MAR Mo. 77 Yr. BOOK No. _____
 SURVEYOR JOEL SWANSON RODMAN TIM VAN ALLEN WEATHER: _____ P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD		
1			RECIPROCAL 65												
2															
3		0		90								16.4	11.2	SP1	
4														SP1	
5	SP1 TO	23760													
6	SP19														
7															
8															
9															
10	SP19 TO	23760													
11	SP1														
12															
13															
14															
15		0		90											
16															
17															
18															
19															
20															

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STADIA SURVEY NOTES

AREA IKPIKPUK RIVER - KEY CREEK STATE or PROVINCE ALASKA PAGE No. 9
 LINE No.(s) 99 PARTY No. 1182 DATE 24 Day MAR Mo. 77 Yr. BOOK No. _____
 SURVEYOR JOEL SWANSON RODMAN TIM VAN ALLEN WEATHER: _____ P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		B.S. OF S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD			
1																
2																
3																
4		7640		90	358				16.0	+8.9	65.2		Δ			
5				269	56	10			16.0	+8.8			Δ			
6																
7		0		90					-5.2							
8																
9																
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20																

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STADIA SURVEY NOTES

AREA Ikpikpak - Key Creek STATE or PROVINCE North Slope, ALASKA PAGE No. 910
 LINE No.(s) KD-99 PARTY No. 1182 DATE 26 Day 3 Mo. 77 Yr. BOOK No. _____
 SURVEYOR K.R. Allen RODMAN T. VAN Allen WEATHER: CLEAR P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		B.S. OF S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD			
1			TAKE OFF LINE INT. 101-			Sp 53										
2			REFER TO LINE # 101-Sp 53													LINE INT.
3			Note: All Reciprocal Angles Computed													Sp-35+00-101
4													58.2		35	Sp-53+00-99
5	N	0							+6.0	+6.0	64.2			D		53.9
6	S	1320	-			C			6.3	-6.3			57.9		36	
7	"	2640	-			C			6.3	-6.2			58.0		37	
8	"	3960		89°51' 04"		C			14.3	+10.3	-3.7		60.5		38	
9	"	5280		89°50' 49"		C			14.3	+14.1	+0.4		64.6		39	
10																
11	Sp 35 - to -			89°46' 38"		89°46' 46"										
12	Sp 41+495	8409.25		270°13' 06"					5.5							
13													92.08	O		41+495 Lat. 70°21'07.47"
14	Sp 41+495 -			90°14' 49"		90°14' 28"										88.3
15	to - Sp 35	8409.25		269°45' 54"					6.3							
16																
17	N	0							6.5	+6.5	98.6			D		41+495
18	N	3135		90°21' 46"		C			14.3	-19.8	-33.9		64.7		39	
19	"	1815		90°19' 12"		C			14.3	-10.1	-24.4		74.2		40	
20	"	495	-			C			8.3	-8.3			90.3		41	

TI-588B

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STADIA SURVEY NOTES

10

AREA Ikpikuk - Key Creek STATE or PROVINCE North Slope, Alaska PAGE No. 104
 LINE No.(s) KD-99 PARTY No. 1182 DATE 26 Day 3 Mo. 77 Yr. BOOK No. _____
 SURVEYOR K.R. ALLEN RODMAN T. VAN ALLEN WEATHER: CLEAR P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		A.B.S. OF S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD			
1																
2												98.6				
3	S	825	-			C			3.9		-3.9	94.7			42	
4	"	2145	-			C			10.3		-10.2	88.4			43	
5	"	3465	-			C			12.7		-12.4	86.2			44	
6	"	4785	-			C			3.6		-3.1	95.5			45	
7																
8	41+495-			89°50'	14" } 12" }		89°50'01"									
9	to- Sp 49	10058. ¹²		270°10'	12" }				5.5							
10												123. ¹²	0		49	Lat. 70°19'29.284"
11	Sp. 49-to-			90°11'	26" } 58" }		90°11'14"									120.0
12	41+495	10058. ¹²		269°48'	58" }				5.5							
13																
14	N	0							6.0		+6.0	129.1		Δ	49	
15	N	5280		90°13'	36"	C			14.3	-20.9	-34.6	94.5			45	
16	"	3960	-			B	14.3	-19.8	-34.1		-33.8	95.3			46	
17	"	2640	-			B	10.1	-15.2	-23.3		-23.2	105.9			47	
18	"	1320	-			B	13.4	-6.6	-20.0		-20.0	109.1			48	
19	N	0							-6.0		-6.0	123.1			49	
20																

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STADIA SURVEY NOTES

AREA Ikpiukuk - Key Creek STATE or PROVINCE North Slope, ALASKA PAGE No. 11
 LINE No.(s) KJ-99 PARTY No. 1182 DATE 24 Day 3 Mo. 77 Yr. BOOK No. H72
 SURVEYOR H.R. ALLEN RODMAN T. VAN ALLEN WEATHER: CLEAR P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Center Hair	Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correction				INST.	ROD		
1															
2															
3	S	1320	-			T	6.3	+6.6	+0.3	+0.3		129.4	50		
4	"	2640	-			T	6.4	+13.2	+6.8	+6.8		135.9	51		
5															
6	Sp 49-to-			89°49' 20"	}		89° 49' 20"								
7	Sp 52	3957.29		270°10' 39"					5.5				136.44	0	52 Lat. 70°18'51.214"
8														133.6	
9	Sp 52-to-			90°12' 37"	}		90° 12' 29"								
10	Sp 49	3957.29		269°47' 39"					5.5						
11															
12	N	0						5.8		+5.8		142.2	Δ	52	
13	S	1320	-			B	10.4	-6.6	-17.0	-17.0		125.2	53		
14	"	2640		90°32' 50"		C			14.3	-25.2	-39.4	102.8	54		
15	"	3960		90°12' 28"		C			14.3	-14.4	-28.3	113.9	55		
16	"	5280		90°15' 23"		C			14.3	-23.6	-37.3	104.9	56		
17	"	6600		90°14' 22"		C			14.3	-27.6	-41.0	101.2	57		
18	"	7920		90°12' 24"		C			14.3	-28.0	-41.6	100.6	58		
19	"	9240		90°07' 43"		C			14.3	-20.7	-33.2	109.0	59		
20	"	10560		90°01' 44"		C			14.3	-5.3	-17.3	124.9	60		

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STADIA SURVEY NOTES

AREA Ikpiakuk - Key Creek STATE or PROVINCE North Slope, ALASKA PAGE No. 12
 LINE No.(s) KD-99 PARTY No. 1182 DATE 26 Day 3 Mo. 77 Yr. BOOK No. 1213
 SURVEYOR K.R. ALLEN RODMAN T. VAN ALLEN WEATHER: CLEAR P.T.S. No.

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		B.S. OF S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correction			Center Hair	INST.			
1											142.2				
2	S	11880		89°53'34"		C		14.3	+22.2	+10.9		153.1		61	
3	"	13200		" "		C		5.5	+24.7	+22.9		165.1		62	
4															
5	Sp 52-to-			89°52'32" }											
6	Sp 66+495	18962.03		270°08'00" }				5.5							
7															
8	Sp 66+495-			90°10'53" }								187.74		66+495	
9	to-Sp 52	18962.03		269°49'09" }				3.5						LAT 70°15'48.809" 186.1	
10															
11	T	0						5.7		+5.7	1934			66+495	
12	N	5275		90°14'17"		C		5.5	-24.0	-28.8		164.6		62	
13	"	4455		90°20'13"		C		14.3	-26.2	-40.1		153.3		63	
14	"	3135		90°28'17"		C		14.3	-25.8	-39.9		153.5		64	
15	"	1815										153.5		65	
16	"	495				C		7.5		-7.5		185.9		66	
17	T	0						5.7		+5.7		187.7		66+495	
18	S	825		91°03'02"		C		4.0	-15.1	-19.1		174.3		67	
19	"	2145		90°16'34"		C		14.5	-10.2	-24.5		168.9		68	
20	"	3465		90°30'29"		C		14.3	-30.7	-44.8		148.6		69	

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STADIA SURVEY NOTES

AREA Ikpikpak - Key Creek STATE or PROVINCE North Slope, ALASKA PAGE No. 13
 LINE No.(s) K D - 99 PARTY No. 1182 DATE 26 Day 3 Mo. 77 Yr. BOOK No. 1344
 SURVEYOR K. R. ALLEN RODMAN T. VAN ALLEN WEATHER: CLEAR P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.		
1											192.4			
2	S	4785		90°22'06"	C			14.3	-30.8	-44.6	148.6	70		
3	"	6105		90°17'52"	C			14.3	-31.7	-45.2	148.2	71		
4	"	7425		90°02'24"	C			14.3	-5.2	-18.3	175.1	72		
5														
6	Sp 66+495-			90°05'09"	}	90°04'56"								
7	to - Sp 73	8739.02		269°55'17"			5.5							
8											177.19	73	LAT 70°14'24.749"	
9	Sp 73 to -			89°56'57"	}	89°56'38"							176.2	
10	Sp 66+495	8739.02		270°03'42"			5.5							
11														
12	T	0						5.6	+5.6		182.8	73		
13		0						5.6	-5.6		177.2	73		
14	S	1320	-		C			6.7	-6.7		176.1	74		
15														
16	Sp 73 to -			90°02'20"	}	90°02'05"								
17	Sp 86+1155	18,302.48		269°58'11"			5.5							
18											173.91	74	86+1155	
19	Sp 86+1155 -			90°00'56"	}	90°00'51"							LAT 70°11'28.716"	
20	to - Sp 73	18,302.48		269°59'15"			5.5							174.1

TI-588B

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STADIA SURVEY NOTES

AREA Ikpikpuk - Key Creek STATE or PROVINCE North Slope, Alaska PAGE No. 14
 LINE No.(s) KD-99 PARTY No. 1182 DATE 26 Day 3 Mo. 77 Yr. BOOK No. 1475
 SURVEYOR K. R. ALLEN RODMAN T. VAN ALLEN WEATHER: CLEAR P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correction	Center Hair			INST.	ROD		
1															
2												173.91		86+1155	
3	K	0						5.8		+5.8	179.7				
4	N	15.675		90°03' 23"		C		20.8		-31.1		148.6		75	PIPE
5	"	14.355		90°04' 33"		C		"		-35.5		144.2		76	
6	"	13.035		90°06' 15"		C		"		-40.9		138.8		77	
7	"	11.715		90°06' 37"		C		"		-40.5		139.2		78	
8	"	10.395		90°07' 07"		C		"		-40.1		139.6		79	
9	"	9.075		90°07' 57"		C		"		-39.8		139.9		80	
10	"	7.755		90°08' 56"		C		"		-39.7		140.0		81	
11	"	6.435		90°10' 30"		C		"		-39.6		140.1		82	
12	"	5.115		90°10' 42"		C		24.2		-39.6		140.1		83	
13	"	3.795		90°06' 57"		C		14.5		-21.6		158.1		84	
14	"	2.475		90°01' 18"		C		14.3		-15.1		164.6		85	
15	N	1.155	-			C		13.1		-13.1		166.6		86	
16	K	0						5.8		-5.8		173.9		86+1155	
17	S	1.65	-			C		9.3		-9.3		170.4		87	
18	"	14.85		90°43' 08"		C		14.3		-32.9		146.8		88	
19	"	28.05		90°23' 31"		C		14.3		-33.3		146.4		89	
20	"	41.25		90°15' 48"		C		14.3		-32.9		146.8		90	

TI-589B

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STADIA SURVEY NOTES

AREA Ikpikpak - Key Creek STATE or PROVINCE North Slope, Alaska PAGE No. 15
 LINE No.(s) KD-99 PARTY No. 1182 DATE 26 Day 3 Mo. 77 Yr. BOOK No. 1516
 SURVEYOR K. R. ALLEN RODMAN T. VANALEN WEATHER: CLEAR P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		A.B.S. OF S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD			
1												179.7				
2	S	5445		90°11'28"		C			14.3	-	-31.8	147.9		91		
3																
4	Sp 86+1155 to -			90°00'45" }			90°00'40"									
5	Sp 91+1155	6595.19		269°59'28" }					5.5				⊙			
6												174.18	⊙	91+1155		
7	Sp 91+1155 to -			90°01'00" }			90°00'57"									Lat. 70°10'25.259"
8	Sp 86+1155	6595.19		269°59'07" }					5.5							174.8
9																
10	T	0							5.8		+5.8	180.0	Δ			
11		0							5.8		-5.8	174.2		91+1155 Bend in Line		
12	S	165	-			C			5.5		-5.5	174.5		92		
13	"	1485	-			C			13.3		-13.3	166.7		93		
14	"	2805	-			C			14.6		-14.4	165.6		94		
15	"	4125	-			C			9.7		-9.3	170.7		95		
16	"	5445	-			C			20.2		-19.6	160.4		96		
17	"	6765		90°02'10"		C			20.8		-24.1	155.9		97		
18	"	8085		90°00'59"		C			20.8		-21.7	158.3		98		
19	"	9405		89°58'52"		C			20.8		-15.8	164.2		99		
20	"	10,725		89°53'41"		C			14.3		+7.8	187.8		100		

TI-588B

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STADIA SURVEY NOTES

AREA Ikpikuk - Key Creek STATE or PROVINCE North Slope, ALASKA PAGE No. 16
 LINE No.(s) KD-99 PARTY No. 1182 DATE 28 Day 3 Mo. 77 Yr. BOOK No. 1011
 SURVEYOR H. A. ALLEN RODMAN T. VANALEN WEATHER: CLEAR P.T.S. No.

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD		
1															
2	Sp 91+1155 to-			89° 54' 11" }		89° 54' 05" }									
3	Sp 100+495	11,212. ³⁸		270° 06' 00" }				5.4							
4												195.76	0	100+495	
5	Sp 100+495 to-			90° 07' 12" }		90° 07' 19" }									LAT. 70° 08' 37.802"
6	Sp 91+1155	11,212. ³⁸		269° 52' 33" }				5.5							197.1
7															
8	Sp 100+495 to-			89° 44' 58" }		89° 44' 50" }									
9	TRI. STA.	4324. ²⁹		270° 15' 18" }				4.8							
10												215.42	0		211.1
11	TRI. STA. ALIK			90° 16' 13" }		90° 16' 06" }						217. ⁵		TRI-STA. ALIK	
12	to Sp 100+495	4324. ²⁹		269° 44' 00" }				5.4				1.58			217.0
13															
14	X	0						5.0							TRI. STA. ALIK
15															ELEV. 217.0
16	TRI-STA. ALIK	4324. ²⁹		90° 16' 13" }		90° 16' 06" }		5.4							USE 1955
17	Sp 100+495			269° 44' 00" }											LAT. 70° 08' 19.9676
18												197. ³⁴	0	100+495	LONG. 154° 19' 41.346
19	Sp 100+495 to	4324. ²⁹		89° 44' 58" }		89° 44' 50" }		4.6							
20	TRI-STA. ALIK			270° 15' 18" }											

TI-588B

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2nd _____

STADIA SURVEY NOTES

AREA Ikpituk - Key Creek STATE or PROVINCE North Slope, ALASKA PAGE No. 1
 LINE No.(s) KD-99 PARTY No. 1182 DATE 27 Day 3 Mo. 77 Yr. BOOK No. _____
 SURVEYOR R.P. ALLEN RODMAN T. VAN ALLEN WEATHER: CLEAR P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD		
1															
2															
3															
4															
5	K	0													
6	S	825		90°26'54"		C							182.2		101
7	"	2145		90°34'14"		C							167.3		102
8	A														
9	Sp100+495			90°01'40"			90°01'40"								
10	to Sp103	3462.44		269°58'19"											
11	AE = 167-22-48"												196.24	0	103 70°08'05.194" 196.24
12	Sp103-to-	3442.42		89°59'25"			89°59'29"								196.2
13	Sp100+495			270°00'26"											
14															
15	K	0													
16	S	1320		91°26'08"		C							164.3		104
17															
18	Sp103-to-			90°55'41"			90°55'38"								
19	Sp105	2638.08		269°04'24"									153.90	0	105 70°07'39" 896
20				AE 167-22-36											153.8

TI-5886

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STADIA SURVEY NOTES

AREA Ikpikpak - Key Creek STATE or PROVINCE North Slope, ALASKA PAGE No. 2
 LINE No.(s) KD-99 PARTY No. 1182 DATE 27 Day 3 Mo. 77 Yr. BOOK No. _____
 SURVEYOR R.B. ALLEN RODMAN T. VANALEN WEATHER: CLEAR P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		B.S. OF S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD			
1																
2																
3												153.92	0	105	70° 07' 39" 896	
4	Sp 105-to-			89° 05' 18" }		89° 05' 18"										
5	Sp 103	2638.08		270° 54' 41" }				5.5								
6																
7																
8	Sp 105-to-			89° 37' 30" }		89° 37' 30"										
9	Sp 106	1319.04		270° 22' 17" }				5.5								
10				AZIMUTH = 108° 14' 40"								162.55	0	106	70° 07' 07" 048	
11	Sp 106-to-			90° 22' 45" }		90° 22' 45"									162.4	
12	Sp 105	1319.04		269° 37' 23" }				5.5								
13																
14																
15																
16																
17																
18																
19																
20																

TI-588B

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STADIA SURVEY NOTES

AREA Ikpikpak - Key Creek STATE or PROVINCE North Slope, ALASKA PAGE No. 3
 LINE No.(s) KD-99 PARTY No. 1182 DATE 27 Day 3 Mo. 77 Yr. BOOK No. _____
 SURVEYOR R. E. ALLEN RODMAN T. VAN ALLEN WEATHER: Clear P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		▲B.S. OF.S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD			
1													166.55			
2																
3																
4	<u>N</u>	<u>0</u>											167.25	<u>149.5</u>	<u>106</u>	
5	<u>S</u>	<u>1320</u>		<u>90°21' 41"</u>	<u>C</u>									<u>145</u>	<u>107</u>	
6	"	<u>2640</u>		<u>90°12' 08"</u>	<u>C</u>									<u>144</u>	<u>108</u>	
7	"	<u>3960</u>		<u>90°21' 03"</u>	<u>C</u>									<u>129</u>	<u>109</u>	
8	"	<u>5280</u>		<u>90°07' 29"</u>	<u>C</u>								<u>142</u>	<u>141</u>	<u>110</u>	
9	"	<u>6600</u>		<u>90°01' 24"</u>	<u>C</u>									<u>151</u>	<u>150</u>	<u>111</u>
10	<u>Sp 106 to -</u>	<u>7913²¹</u>		<u>89°54' 22"</u>		<u>89°54' 31"</u>										
11	<u>Sp 112</u>			<u>270°05' 20"</u>												
12				<u>Azimuth = 188-17-35"</u>										<u>176.98</u>	<u>0</u>	<u>112</u>
13	<u>Sp 112 to -</u>	<u>7913²¹</u>		<u>90°07' 09"</u>		<u>90°07' 03"</u>										<u>176.6</u>
14	<u>Sp 106</u>			<u>269°53' 03"</u>												
15																
16																
17																
18																
19																
20																

TI-588B

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STADIA SURVEY NOTES

AREA Ikpikpak - Key Creek STATE or PROVINCE North Slope, Alaska PAGE No. 4
 LINE No.(s) KD-99 PARTY No. 1182 DATE 27 Day 3 Mo. 77 Yr. BOOK No.
 SURVEYOR R. R. Allen RODMAN T. VanAllen WEATHER: CLEAR P.T.S. No.

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Center Hair	Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		A.B.S. OF.S. -S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion				INST.	ROD			
1												176.98				
2	K	0						5.5		+5.5	182.5		Δ	112		
3	S	495		91°01' 24"		C		14.3	-8.8	-23.1	159	162			Pin	
4	"	1320		91°54' 33"		C		14.3	-44.4	-58.2	124	127			113	
5	"	2475		90°10' 04"		C		14.3	-7.2	-21.4		161			Pin	
6	"	2640	-			C		-4.9		-4.8		178			114	
7																
8	Sp 112-to-11870 ⁹⁶			89°52' 16"												
9	Sp 121			270°07' 47"				5.5								
10				Azimuth = 108-13-35"								206.79		○	+2 121 = 70°04'14"38	
11	Sp 121-to-11870 ⁹⁵			90°09' 38"											206.2	
12	Sp 112			269°50' 35"				5.5								
13																
14	K	0						5.7		+5.7	212.48		Δ	121		
15	N	9240		90°08' 14"		C		14.3	-22.1	-34.6	176	198			114	
16	"	7920							Elev. of this point						115	
17	"	6600		90°19' 50"		C		14.3	-38.1	-51.5		161			116	
18	"	5280		90°16' 21"		C		14.3	-25.1	-38.8		174			117	
19	"	3960		90°31' 42"		C		14.3	-36.5	-50.5		162			118	
20	"	2640		90°38' 16"		C		14.3	-29.4	-43.5		169			119	

TI-5886

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STADIA SURVEY NOTES

AREA Ikpitpak - Key Creek STATE or PROVINCE NORTH Slope, ALASKA PAGE No. 5
 LINE No.(s) KD-99 PARTY No. 1182 DATE 29 Day 3 Mo. 77 Yr. BOOK No. _____
 SURVEYOR K. R. Allen RODMAN T. Van Allen WEATHER: CLEAR P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		B.S. OF S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD			
1												212.49	206.79			
2	N	1320		90°14' 25"	C			14.3	-5.5	-19.8		193		120		
3		0						5.7		-5.7		206.79		121		
4	S	1320	-			C		11.4		-11.4		201		122		
5	"	2640		90°05' 27"	C			14.3	-4.2	-18.3		194		123		
6	"	3960		90°14' 14"	C			23.8	-16.4	-39.9		173		124		
7	"	5280		90°12' 02"	C			14.3	-18.5	-32.2		180		125		
8	"	6600		REF TO PAGE 5-A FOR ELEV.								143.3		126		
9	"	7920		"	"	"	"	"	"	"		143.2		127	(142.3 MEAN WITH L-97)	
10	"	9240		"	"	"	"	"	"	"		145.8		128		
11	"	10,560		90°10' 58"	C			20.8	-33.7	-52.1		158		129		
12	"	11,880		90°12' 17"	C			20.7	-42.4	-60.2		149		130		
13	"	13,200		90°08' 01"	C			14.3	-30.8	-41.4		167		131		
14																
15	Sp 121 to			89°57' 07"				89°57' 07"								
16	Sp 139	23,742.68		270°02' 50"												
17				AZIMUTH = 188 - 07.41"								235.23	0	139	70°00' 22.97"	
18	Sp 139 to			90°05' 21"				90°05' 21"								234.4
19	Sp 121	23,742.68		269°54' 45"												
20																

TI-588B

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STADIA SURVEY NOTES

AREA Ikpikuk - Key Creek STATE or PROVINCE North Slope, ALASKA PAGE No. 5-A
 LINE No.(s) KD-99 PARTY No. 1182 DATE 27 Day 3 Mo. 77 Yr. BOOK No. _____
 SURVEYOR K.R. ALLEN RODMAN T. VAN ALLEN WEATHER: CLEAR P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		▲ B.S. OF S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD			
1																
2																
3																
4													178.	Δ	Sp 114	
5	N	495	-				C		3.4		+3.4	181.		Δ		
6	S	825		92°33'	35"		C		12.0	-36.8	-48.8		137.		115	
7	S	1320		91°27'	05"		C		14.0	-33.4	-47.4		134.		115+495	
8	N	495	-				C		3.4		-3.4		178.	⊙	Sp 114	
9																
10		0											180.0		Sp 125	
11		0							5.7		+5.7	185.2		Δ		
12	S	1320		91°12'	35"		C		14.0	-27.9	-41.8		143.9		126	
13	"	2640		90°37'	25"		C		14.0	-28.7	-42.6		143.1		127	
14	"	3960		90°22'	47"		C		14.0	-26.2	-39.9		145.8		128	
15		0							5.7		-5.7		180.2	⊙	125	
16																
17													166.0		Sp 142	
18		0							5.4			171.4		Δ		
19	N	1320		89°39'	40"		C		4.0				175.2		141	
20		0							5.4				166.0	⊙	Sp 142	

TI-588B

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STADIA SURVEY NOTES

AREA Ikpikpak - Key Creek STATE or PROVINCE North Slope, Alaska PAGE No. 6
 LINE No.(s) KD-99 PARTY No. 1182 DATE 28 Day 3 Mo. 77 Yr. BOOK No. _____
 SURVEYOR K. R. ALLEN RODMAN T. VAN ALLEN WEATHER: CLEAR P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING			Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		A.B.S. OF S. - S.S.	Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion			Center Hair	INST.			
1											235.23				
2	K	0						-5.2	+5.2	240.4		Δ			
3	N	9240		90°16' 29"	C		14.3	-44.3	-56.8		182		132		
4	"	7920		90°35' 03"	C		14.3	-80.7	-93.7		145		133		
5	"	6600		90°40' 50"	C		20.9	-67.3	-87.3		141		134	?	
6	"	5280		90°48' 25"	C		20.9	-74.4	-95.2		144		135		
7	"	3960		90°42' 30"	C		14.3	-49.0	-62.9		177		136		
8	"	2640		90°37' 52"	C		14.3	-29.1	-43.2		197		137		
9	"	1320		90°53' 41"	C		14.3	-21.4	-35.6		205		138		
10	K	0						-5.2	-5.2		235.22		139		
11	S	1320		90°22' 24"	C		14.3	-8.6	-22.9		218		140		
12	"	2640									175.2		141		
13	"	3960		90°46' 16"	C		20.8	-53.3	-73.8		166		142		
14	"	5280		90°38' 53"	C		14.3	-59.8	-73.5		166		143		
15	"	6600		90°32' 54"	C		14.3	-63.2	-76.5		163		144		
16	"	7920		90°07' 31"	C		14.3	-17.3	-30.3		209		145		
17															
18	Sp 139-b	9132.22		90°05' 46"	}			90°05' 59"							
19	Sp 146			269°53' 47"				5.5							220.2
20				AZIMUTH = 188 - 041 - 01"							221.2'	⊙	146	69°58' 53" 000	

TI-588B

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STADIA SURVEY NOTES

AREA IRpikpak - Key Creek STATE or PROVINCE North Slope Alaska PAGE No. 7
 LINE No.(s) KD-99 PARTY No. 1182 DATE 28 Day 3 Mo. 77 Yr. BOOK No. _____
 SURVEYOR K.P. Allen RODMAN T. VanAllen WEATHER: Clear P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD		
1												221.01	⊙	146	69° 58' 53" 000
2	Sp 146 to	9232.92		89° 55' 29"	}	89° 55' 24"									
3	Sp 139			270° 04' 40"											
4															
5	T	0						5.7		+5.7	226.2	Δ	146		
6	S	1320		91° 08' 51"		C		20.8	-26.4	-47.2	179		147		
7	"	2640		90° 43' 02"		C		14.3	-33.0	-47.2	179		148		
8	"	3960		90° 15' 05"		C		14.3	-17.4	-31.3	195		149		
9	"	5280		90° 13' 55"		C		14.3	-21.4	-35.1	191		150		
10	"	6600		90° 14' 30"		C		20.8	-27.8	-47.7	178		151		
11	"	7920		90° 12' 15"		C		20.8	-28.2	-47.7	178		152		
12	"	9240		90° 13' 01"		C		14.3	-35.0	-47.5	177		153		
13	"	10,560		90° 11' 36"		C		14.3	-35.6	-47.6	177		154		
14	"	11,880		90° 10' 11"		C		14.3	-35.2	-46.5	177		155		
15	"	13,200		89° 59' 24"		C		14.3	+2.3	-8.3	215.2		156		
16															
17	Sp 146 to	14058.95		90° 01' 19"	}	90° 01' 19"									
18	Sp 157			229° 58' 39"					5.5						
19				Azimuth = 188° 01' 42"								220.36	⊙	157	69° 56' 35" 970
20															219.6

TI-588B

WORKED BY _____ CHECKED BY 1st _____ 2nd _____

STADIA SURVEY NOTES

AREA Ikpikpak - Key Creek STATE or PROVINCE North Slope, Alaska PAGE No. 8
 LINE No.(s) KD-99 PARTY No. 1182 DATE 28 Day 3 Mo. 77 Yr. BOOK No. _____
 SURVEYOR K.R. Allen RODMAN T. Van Allen WEATHER: CLEAR P.T.S. No. _____

LINE	Bearing of Sight	Stadia Distance	BEAMAN OR VERNIER			ROD READING				Angular Elev. Diff.	Final Elev. Diff.	ELEVATIONS		Station	REMARKS
			Level	Inclined	Angle or Factor	Hair Read	Reading	Correc-tion	Center Hair			INST.	ROD		
1															
2												220.36	0	157	69° 56' 35" 970
3	Sp 157 to	14058		90° 01' 06"	} 90° 01' 00"										
4	Sp 146			269° 59' 06"											
5															
6	N	0						5.7		+5.7	226.06		Δ		
7	S	1320		91° 50' 23"	C			20.6	-42.4	-62.9	163		158		
8	"	2640		91° 04' 01"	C			14.3	-49.1	-63.3	163		159		
9	"	3960		90° 20' 02"	C			14.3	-23.1	-37.0	189		160		
10	"	5280		90° 06' 43"	C			14.3	-10.3	-24.0	201		161		
11	"	6600		90° 07' 42"	C			20.7	-14.8	-34.6	191		162		
12	"	7755		90° 06' 47"	C			20.7	-15.3	-34.7	190		Tail Group 4		
13	"	9075		90° 05' 58"	C			20.8	-15.8	-34.8	190		" "	8	
14	"	10,395		89° 56' 30"	C			14.3	+10.6	-1.4	222		" "	12	
15	"	11,715		90° 00' 18"	C			14.3	-1.0	-12.4	211		" "	16	
16	"	13,035		89° 57' 06"	C			14.3	+11.0	+0.3	223		" "	20	
17	"	14,355		90° 00' 30"	C			14.3	-2.1	-12.1	210		" "	24	
18		0						5.7		-5.7	220.36	0	157	219.6	
19															
20															

TI-588B

WORKED BY _____

CHECKED BY 1st _____

2nd _____